

**Community Rating System  
Activity 510 (Floodplain Management Planning)**

**Progress Report on Implementation of Credited Plan**

Date this Report was Prepared: 7/8/20

Name of Community: Terrebonne Parish Consolidated Government (City of Houma and Terrebonne Parish)

Name of Plan: Terrebonne Parish Hazard Mitigation Plan Update 2020

Date of Adoption of Plan: 6/11/20

5 Year CRS Expiration Date: 6/11/25

1. How can a copy of the original plan or area analysis report be obtained:

Visit [tpcg.org/hmpu](http://tpcg.org/hmpu) and click on Terrebonne Parish Hazard Mitigation Plan Update 2020 - Final Adopted Plan.

2. Describe how this progress report was prepared and how it was submitted to the governing body, released to the media, and made available to the public:

The progress report was prepared using the information from the Terrebonne Parish Hazard Mitigation Plan Update 2020 5 year update. It was emailed to all Council Members and media organizations, and posted online at [tpcg.org/hmpu](http://tpcg.org/hmpu).

3. Provide a description of the implementation of each recommendation or action item in the action plan or area analysis report, including a statement on how the project was implemented or not implemented during the previous year:

See attached *2020 HMPU Project Status*

4. Discuss why any objectives were not reached or why implementation is behind schedule:

There is a listing in the plan and the 2018 yearly maintenance about what projects were completed. There are a number of projects on the list, and insufficient funding to do all of the projects that we have identified.

5. What are the recommendations for new projects or revised recommendations?

See attached *2020 HMPU Goals and Objectives*

2020 HMPU Project Status

Project	Coastal Wetlands Planning, Protection, & Restoration Act (B)	Coastal Impact Assistance Program (C)	Coastal Protection & Restoration Authority (D)	ESF-14 (TP Long Term Recovery Plan) (E)	TP Hazard Mitigation Plan (F)	TP 1603 DR 2008 Letter of Intent (G)	TP Feasibility Study for Levee Enhancement Projects (H)	Project 2010 Update (I)	New Projects, 2014 Update (J)	Approximate Cost	Level of Priority	Parish Capacity to Complete	Desired Timeline to Complete	1-5 years 5-10 years 10-15 years	Responsible Department/ Division for Implementation
G4	Forced Drainage 1-1B Channel Improvement (Maintenance & Dredging)					X									
I22	Drainage Improvement -- D-20 Schriever Pump Station Bar Screen Cleaner							X							
B31	Brady Canal Hydrologic Restoration	X													
B28	Coastwide Reference Monitoring Systems	X													
B27	Falgout Canal Planting Demonstration	X													
B26	Floating Marsh Creation	X													
B25	GIWW Bank Restoration of Critical Areas in Terrebonne Parish	X													
B24	Isles Dernieres Restoration East Island	X													
B23	Isles Dernieres Restoration Trinity Island	X													
B22	Lake Chapeau Sediment Input and Hydrologic Restoration	X													
B19	Mandalay Bank Protection Demonstration	X													
B18	New Cut Dune and Marsh Creation	X													
B16	North Lake Menchant Landbridge Restoration	X													
B14	Penchant Bases Natural Resources Plan--Increment 1	X													
B13	Point Au Fer Canal Plugs--Saltwater Intrusion	X													
B12	Raccoon Island Breakwater Demonstration	X													
B11	Raccoon Island Shoreline Protection/Marsh Creation	X													
B9	South Lake De Cade Freshwater Introduction	X													
B7	Terrebonne Bay Shore Protection Demonstration	X													
B6	Thin Mat Floating Marsh Enhancement	X													
B5	Timbalier Island Dune and Marsh Creation	X													
B4	Timbalier Island Planting Demonstration Overview	X													
B3	West Lake Boudreaux Shoreline Protection and Marsh Creation	X													
B1	Whiskey Island Restoration	X													
J2	Communications - Community Alert System (First Call), Reverse 911, Community Hotline, Alert FM, Redundant Phone System at EOC								X						
I23	Drainage Improvement -- D-3 Upper Montegut Bar Screen Cleaner							X							
E15	Construct Emergency Operations Center			X											
J35	Develop a Program for Public Information								X	\$5,000.00					
I163	Wind Retrofit -- Juvenile Detention Center							X			Yes				
I169	Wind Retrofit -- New Roll-up Door at EOC -- 911							X			Yes				
H5	Ashland North -- 1.5 Miles to +8'						X								
H15	Upper Dularge East Levee -- 5.2 Miles to +8'						X								
J1	Safe Room - OEP (Substitute)								X						
I148	Wind Retrofit -- Civic Center (Shutters or Window Film)							X			Yes				
I150	Wind Retrofit -- Courthouse Annex (Window Film)							X			Yes				
I158	Wind Retrofit -- Harden Front and Back Doors of Convention Center							X			Yes				
I171	Wind Retrofit -- Roof of Convention Center							X			Yes				
D9	Barrier Shoreline Restoration in Terrebonne Parish		X												
B20	Madison Bay Marsh Creation & Terracing	X													
D8	Ridge Habitat Restoration in Terrebonne Parish		X												
B20	Terrebonne Bay Marsh Creation - Nourishment	X													
B2	Whiskey Island Back Barrier Marsh Creation	X													
C8	Atchafalaya Long Distance Sediment Pipeline		X								High				
	Bayou DeCade Ridge Restoration										High				
	Bayou DuLarge Ridge Restoration										High				
	Bayou Pointe aux Chenes Ridge Restoration										High				
	Bayou Terrebonne Ridge Restoration										High				
C2	Beach and Back Barrier Marsh Restoration		X								High				
	Caillou Lake-Lake Mechant Marsh Creation										High				
	Falgout Canal Marsh Creation										High				

2020 HMPU Project Status

	Golden Meadow-Montegut Marsh Creation - Component A																					High				
	Increase Atchafalaya Flow to Eastern Terrebonne																						High			
	Isle Dernieres Barrier Island Restoration																						High			
D5	Marsh Restoration Using Dredged Material in Terrebonne Basin					X																	High			
C4	North Lost Lake Marsh Creation/Enhancement		X																				High			
	North Terrebonne Bay Marsh Creation																						High			
C5	Shoreline Protection on Houma Navigational Canal		X																				High			
	Small Bayou LaPointe Ridge Restoration																						High			
	Timbalier Islands Barrier Island Restoration																						High			
J11	20 Pump Stations/Scada/Telemetry, the automation of forced drainage Pump Stations to reduce response time and flooding. Monitored and controlled remotely during storm events											X			\$3,000,000.00								High			
B29	Coastwide Nutria Control Program	X																								
C1	Falgout Canal Freshwater Enhancement Phase I		X																							
D1	Morganza to the Gulf					X																				
B17	North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management	X																								
B15	Nutria Harvest for Wetland Restoration Demonstration	X																								
I156	Wind Retrofit -- Government Tower (Window Film)									X													Yes			
I162	Wind Retrofit -- Houma PD									X													Yes			
I96	Emergency Preparedness -- Military Showers									X																
	Point Au Fer Island Marsh Creation																						Low			
	Point Au Fer Island Shoreline Protection																						Low			
B21	Lower Bayou LaCache Hydrologic Restoration	X																								
B10	Ship Shoal: Whiskey West Flank Restoration	X																								
I137	Generators--Central Fire Department Station, Montegut Middle School, Houma Police Department, Terrebonne Parish Civic Center, Terrebonne Parish Public Works building, Terrebonne Parish EOC					X						X														
C6	Houma Navigational Canal Lock		X																							
C7	Mississippi River Long Distance Sediment Pipeline		X																							
I46	Safe Room - Bayou Country Road											X														
	Atchafalaya River Diversion																						Priority			
	Bayou Chene Floodgate																						Priority			
	Bayou DeCade Marsh Creation																						Priority			
	Bayou Penchant Marsh Creation																						Priority			
B30	Central Terrebonne Freshwater Enhancement	X																					Priority			
D6	Chacahoula Basin Hydrologic Restoration					X																	Priority			
C3	Closure of Breaches of GIWW		X																				Priority			
I6	Communications Tower North Campus/Telemetry/Forced Drainage											X			\$400,000.00								Priority			
	Dulac-Cocodrie Marsh Creation																						Priority			
D7	Freshwater Introduction via Blue Hammock Bayou					X																	Priority			
	HNC-Lake Mechant Marsh Creation																						Priority			
I125	Generator -- Public Works -- Portable Trailer Unit Mounted for 6 Treatment Plants (56KW)											X														
I127	Generator -- Public Works Valhi Lift Station (135KW)											X														
I130	Generator -- Public Works, Service Center Yard (400 KW 208/480 Volt)											X														
	Lower Atchafalaya Marsh Creation																						Priority			
	Mauvais Bois Ridge Restoration																						Priority			
	Terrebonne GIWW Marsh Creation																						Priority			
I138	Generator -- Public Works -- Forced Drainage Pump Station D-03, D-07, D-12, 20KW											X											Priority			
G1	Automatic Bar Screen Cleaners (Pump Stations -- D-58, D-03, D-69, D-22, D-28, D-07, D-21)					X																				
D4	Multipurpose Operation of the Houma Navigational Canal					X																				
E12	Plan, Implement, and Construct Parish wide Sewerage						X																			
I99	Floodproof -- Terrebonne Parish General Medical Center, The TPCG Generating Station, and the 2 Consolidated Waterworks Treatment Plants											X														
A1	Expand Forced Drainage to Flood Prone Areas w/o System in Place (3-7)																									

2020 HMPU Project Status

F11	reduce flooding, such as requiring proper drainage with					X												
E13	Construct Communications Infrastructure and Provide Primary Responders with Proper Equipment				X													
H2	Ashland/Woodlawn -- 2.9 Miles to +8'								X									
H19	Brady Road Levee in Dularge -- 1 mile to +10'								X									
H20	Cane Break to Ashland Levee to +10'								X									
E5	Construct Transportation Improvements Designed to Increase the Economic Viability of Terrebonne Parish				X													
I8	Drainage Improvement -- (Chabert Medical Center Levee/Houma Industrial Park) Build Levee from Thompson Road to Industrial Pump Station																X	
E4	Educate the Public in Disaster Awareness				X													
I95	Emergency Preparedness -- Message Boards																X	
I97	Emergency Preparedness -- Nursing Home Evacuation Coordination/Plan																X	
H11	Falgout Canal Water Control Structure to +10'								X									
E10	Increase Affordable Housing throughout the Parish				X													
F5	Increase Public Awareness of Hazards and Hazard Areas																X	
F4	Promote Purchase of Flood Insurance																X	
E9	Review the existing floodplain ordinance and evaluate ways to improve the Parish's "Community Rating System (CRS) rating to reduce the flood insurance premium. Choose from the variety of methods and projects available that can be implemented to improve the CRS rating.																X	
H17	Susie Canal Improvements in Grand Caillou to +10'																X	
E14	Update Parish Emergency Operations Plan				X													
H23	Upper Dularge East Levee to +10'																X	
I9	Drainage Improvement -- Ann Carroll, Jean Street, Duet Street, and Grace Street (Upgrade Culvert size to drain water from middle of streets)																	X
I13	Drainage Improvement -- Bayou Lacache Pump Canal (Widen and Deepen Canal from Lacache Estate to Pump Station)																	X
I14	Drainage Improvement -- Bayou Lacarpe (Widen Channel from Tunnel Blvd to pump station and upgrade bar screen cleaner)																	X
G3	EOC Hardening								X									
I105	Generator -- 150KW for Valhi Lift Station																	X
I105	Generator -- City Hall (with switching capacity)																	X
I106	Generator -- Coteau Fire Station (Natural Gas, includes change over switch to ensure response to emergency calls)																	X
I107	Generator -- Gov't Towers																	X
I108	Generator -- Houma Fire Department, Central Station (50KW)																	X
I109	Generator -- Houma Police Department Building (Cummings model GFGA 500 KW 120/208 Volt 3 phase, 60 hertz, 1800RPM NG set)																	X
I119	Generator -- OEP 911 (60KW)																	X
I120	Generator -- Pollution Control Portable Unit Trailer Mounted for 10 treatment plants (50 KW)																	X
I126	Generator -- Public Works Service Center Yard (400KW)																	X
I17	Drainage Improvement -- Bonanza Pump Station D-27 Tideflex valves on discharge pipes																	X
I18	Drainage Improvement -- Coteau 1-1B Bar Screen Cleaner																	X
I20	Drainage Improvement -- D-07 Smithridge Pump Station Bar Screen Cleaner																	X
I28	Drainage Improvement -- Island Road (Stabilize roadway shoulders and embankment)																	X
I33	Drainage Improvement -- Michael Street, Buquet Street, and Daigle Street (Increase Culvert size to drain streets during heavy rain fall)																	X
G2	Elevation -- Residential								X									

2020 HMPU Project Status

I128	Generator -- Public Works, Buquet Bridge (75 KW 120/240 Volt)									X											
I129	Generator -- Public Works, Klondyke Bridge (75 KW 120/240 Volt)									X											
F7	Pursue elevation/acquisition/flood proofing projects and structural solutions to flooding.												X								
E9	Reduce the Potential for Future Flood Losses through the Terrebonne Parish Flood Hazard Mitigation Program																X				
I139	RL and Severe RL Properties -- Elevation, Acquisition, Mitigation Reconstruction (Parish)																				
I147	Wind Retrofit -- City Hall (IT Department)																				Yes
I10	150KW generators for Mire, Idlewild, and Elysian Lift Stations																				Yes
I37	Drainage Improvement -- Pump Station Telemetry																				X
I44	Drainage Project -- Port Commission																				X
F10	Adopt additional residential and commercial building regulations, which include stricter building standards, Land Use Regulations throughout the Parish consistent with those that exist within the Urban Services District of Houma and incorporate dry flood proofing techniques. When the International Building Codes become mandatory, they will supersede the existing codes.																				X
H16	Barrier Plan (Big Bayou Black/Gibson) 1/3 of project -- 8.4 Miles to +6.5'																				X
H27	Barrier Plan (Big Bayou Black/Gibson) 1/3 of project -- 8.4 Miles to +6.5'																				X
H8	Barrier Plan (Big Bayou Black/Gibson) 1/3 of project -- 8.4 Miles to +6.5'																				X
H10	Bayou Grand Caillou Water Control Structure to +10'																				X
H9	Bayou Point Au Chene Sluice Gate to +10'																				X
H4	Brady Road Levee in Dularge -- .25 miles to Falgout Canal to +8'																				X
H12	Cane Break to Ashland Levee -- 3.4 Miles to +8'																				X
J24	Collaborate with communities to design, evaluate, and implement Relocation Strategies for communities located outside of the levee systems (Tribal)																				X
J4	Communications -- Additional Communications Tower for office																				X
I4	Communications (Fire, Law Enforcement, Parish, Other) Radios 580 Portables, 372 Mobiles																				X
I5	Communications for Water Treatment -- 41 Mobiles																				X
I6	Communications Tower (Theriot, LA)																				X
E8	Develop a Detailed Business Recruitment and Retention Plan																				X
F2	Develop Master Drainage Plan																				X
I16	Drainage Improvement -- Benoit Crossing (Remove Portable Pump and place permanent pump)																				X
I29	Drainage Improvement -- Isle of Cuba Transfer (Off-site fuel storage -- gas and diesel)																				X
I35	Drainage Improvement -- Old Spanish Trail 6-1B (Place area under Force Drainage to Stop Backwater Flooding)																				X
I39	Drainage Improvement -- Savanne Road to Summerfield (Create a force drainage area to stop backwater and storm events flooding)																				X
I43	Drainage Study -- Airport Commission																				X
H14	East Theriot -- 9 Miles to +8'																				X
H22	East Theriot to +10'																				X
I37	Education regarding flood safety and property valuation																				X
I42	Educational video on evacuation options																				X
I94	Emergency Preparedness -- Creation of alternative staging area																				X
J7	Emergency Preparedness -- Evacuation Sign Purchase and Placement																				X

2020 HMPU Project Status

J3	Emergency Preparedness -- Gauge installation at pump stations near major roadways and bridges/floodgates									X								
J5	Emergency Preparedness -- Purchase of Drone for Damage Assessment									X								
I98	Emergency Preparedness -- Small Power Radio Station for Hazard Alert										X							
J25	Ensure that current and future building elevations take the needs of those individuals with access and functional needs into account. This includes the incorporations of lifts. (Tribal)																	
E7	Expand and Improve Parish wide Sewerage Facilities					X												
H25	Extension Orange Street Projects in Grand Caillou -- 2.0 Miles to +10'									X								
A2	Feasibility and Practicality of New Shelters (3-8)																	
I100	Flood Protection -- Sea wall at Public Works Yard Grand Caillou Road																	
I101	Flood Wall and Pump Installation for Terrebonne General																	
J45	Four P25 Motorola Communications Consoles to be located within the Terrebonne 911 Cat. 5 Hurricane resistant facility located at 110 Capital Blvd. to be used for Interoperable Communications between all 15 Terrebonne Fire Districts (13 Fire Departments), Law Enforcement Agencies, OEP, Utilities & Parish Departments (cost \$138,000)											X	X					
D2	Gibson to Houma Hurricane Protection						X											
D3	Houma and Vicinity Hurricane Protection						X											
E2	Identification of Donor and Placement Sites for Sediment Deposition							X										
J26	Identify mechanisms to protect the Island Road from surge and tidal impacts. This might include engineered solutions to decrease wave impacts and/or erosion control mechanisms along the edges of the road. (Tribal)																	
J22	Identify vulnerable historic and cultural resources, as well as opportunities to protect and/or relocate historic assets (Tribal)																	
E1	Implement Capital Improvement Program to Enhance Inner Ring of Tidal Protection/Forced Drainage Levees						X											
H1	Industrial Blvd Gap -- 2.1 Miles to +8'									X								
I132	Infiltration Reduction of Underground Wastewater System (Testing needed for Locations)												X					
H7	Intracoastal Canal Near Palm Street -- 2.3 Miles to +6.5'									X								
J34	Levee Safety Education Promotions													X		\$30,000.00		
J30	Library Storm Preparation and Recovery Flashcards													X		\$25,000.00		
H24	Lower Point Au Chene -- .85 Miles to +10'									X								
H6	Lower Point Au Chene -- 3.9 Miles to +8'									X								
I133	Modification to Village East Lift Station (Conversion from Dry Pit to Submersible Station)													X				
I134	New Water Storage Tank -- Terrebonne General Medical Center (1,000,000 Gallons, \$750,000)													X				
H3	North of Orange Street Project in Grand Caillou -- 2.5 Miles to +8'									X								
H18	North of Orange Street to +10'									X								
E11	North-South Hurricane Evacuation Route																	
J44	Portable billboards to update emergency instructions or evacuation routes/changes													X				
J23	Protect historic and cultural resources, such as cemeteries and gathering places from all hazards (Tribal)													X				
J36	Review capacity to increase nonresidential structure mitigations													X		Variable		
E3	Review of Louisiana Coastal Zone Management Program								X									
J29	Safe Harvor Study and Education Campaign													X		\$50,000.00		

2020 HMPU Project Status

E6	Secure Congressional Authorization and Construct the Morganza to the Gulf Hurricane Protection System and Enhance and Protect Critical Waterways in the Parish.						X												
J43	Signage for evacuation routes									X		\$10,000.00							
F6	Sponsor a "Multi-Hazard Awareness" Week						X												
J33	Storm Preparedness Literacy Project									X		\$5,000.00							
J32	Storm Recovery Phase Code Enforcement Capacity									X		Variable							
J31	Structure Inventory									X		\$850,000.00							
H	Susie Canal Improvements in Grand Caillou -- 5.3 Miles to +8'																		
J38	Vehicle lift for HPD EOC									X		\$1,500.00							
H13	West Grand Caillou Levee -- 4.6 Miles to +8'								X										
H21	West Grand Caillou Levee to +10'								X										
H26	West Ward 7 -- 15.9 Miles to +10'								X										
J27	Work with communities currently residing in flood prone areas, particularly outside of the levee systems, on the identification of flood mitigation and climate adaptation measures to reduce flood risk. (Tribal)																		X
J28	Work with the communities currently residing in at risk areas on the development of evacuation plans including access to shelter and transportation assistance as needed. (Tribal)																		X
	(From D-12 to Cement Lined Ditch, Widen and Deepen																		
J8	100 Amp, 3-way SS Disconnects for generator ready connections (approx. 40 Lift station sites)																		X
I1	Blackstart Capacity -- Houma Power Plant									X									
I2	Communications -- Conversion of SCADA system from Phone to Radio (Airbase Jr., Applied Hydraulics, Ashland North 1, Ashland North 2, Ashland South, Bobtown, Bourg Heights, Central Heights, Clinton St. Package Plant, Dulac, Edgewood, Frank, Grmoco, Green Acres 1, Green Acres 2, Indian Ridge, Jail, James, Lafayette Woods, Mary Hughes, Moffet/Saia, Orange/Marjorie, Patriot Point, Presque Isle 1, Presque Isle 2, Riley, Rounds, Sandcastle, Sarah, Smithridge 1, Smithridge 2, Thunderbird, Village East)										X								
I3	Communications -- Hazard Warning System (Gauges Strategically Placed, N-Star)									X									
I7	Connect Station to emergency generator -- Munson PS									X									
I10	Drainage Improvement -- Ashland North D-60 Tideflex valves on discharge pipes									X									
I11	Drainage Improvement -- Bayou Grand Caillou (D-9 South the Landfill Road, Widen and Deepen Channel)									X									
I12	Drainage Improvement -- Bayou Grand Caillou (From Oaklawn School to D-9 Pump Station, Widen and Deepen Channel)									X									
I15	Drainage Improvement -- Bellaire Drive (Increase Culvert Sizes and Slope Ditches)									X									
I19	Drainage Improvement -- Crochetville Road Storm Water Diversion canal with flap gates									X									
I21	Drainage Improvement -- D-13 Industrial Blvd. Motorized screw gates									X									
I24	Drainage Improvement -- Evelyn Lateral Between (Subsurface drainage in lateral ditch from Frank street to Perky street)									X									
I25	Drainage Improvement -- Highway 24 in Gray									X									
I26	Drainage Improvement -- Highway 315 in Dularge									X									
I27	Drainage Improvement -- Industrial Pump D-13 Trash Screen and Bar Screen Cleaner									X									
I30	Drainage Improvement -- LA 56 in Chauvin									X									
I31	Drainage Improvement -- Lower Montegut D-2 Tideflex Valves on discharge pipes									X									
I32	Drainage Improvement -- Martin Luther King Blvd (Increase Culvert Size in pump canal under highway in bonanza system)									X									



2020 HMPU Project Status

134	Drainage Improvement -- Oak Forest Street (Increase in Culvert Sizes and Pump Station)									X											
136	Drainage Improvement -- Old Spanish Trail 6-1B (Put Screw Gates on Culvert Crossings)									X											
138	Drainage Improvement -- Royce Street (Increase culvert size to stop rainfall flooding)									X											
140	Drainage Improvement -- South Ellendale Estates Lateral (Dig and possible widen lateral from subdivision to Hanson Canal)									X											
141	Drainage Improvement -- Widen Jeannie Canal									X											
145	Dry Floodproof RL Structure Next to Robinson Canal (Meeting #3)									X											
146	Dry Floodproofing -- Infiltration Reduction of Underground Wastewater Collection System									X											
147	Elevation -- Bayou Dularge Tank building and chlorination equipment									X											
148	Elevation -- Fire Station (raise 2', history of flooding, 75'x75' Slab) (1466 Hwy 665)									X											
149	Elevation -- Fire Station in Chauvin									X											
150	Elevation -- Generator for Riley Drive Lift Station									X											
151	Elevation -- Grand Caillou Tank building									X											
152	Elevation -- Industrial Blvd from Van Ave to Pump Station									X											
153	Elevation -- Leachate Removal System									X											
154	Elevation -- Lift Stations with Self Priming Pumps (Bourg Heights, Edgewood, Ashland North, Ashland North II, Ashland South, Woodlawn Ranch, Saia, Prospect, Carriage Cove, Green Acres I, Green Acres II, Lafayette Woods, Lorraine Park, Presque Isle, Presque Isle II, Chabert Medical Center, Service Center, Smithridge I, Smithridge II, South Terrebonne Estates, Riley Drive)									X											
155	Elevation -- Lift Stations with Submersible Pumps (Bobtown, Dulac, Orange Street, Airbase Jr., Patriot Point, Rounds Road, Applied Hydraulics, Gemoco, Indian Ridge, James Road, Sandcastle, Thunderbird Road)									X											
156	Elevation - Lower Dulac Tank Building and Chlorination equipment									X											
157	Elevation -- Montegut Station (100'x75')									X											
159	Elevation -- Orange Street Wastewater Plant Controls									X											
160	Elevation -- Pointe-Aux Chenes Pump Station building and electrical pump, regulating valve and meter									X											
161	Elevation -- Robinson Canal P.S. Building, electrical pump, regulating valve, and meter									X											
162	Elevation -- Scale									X											
163	Elevation -- South Terrebonne Pump Station building and pump									X											
164	Elevation -- Terrebonne General Medical Center Main Plant Electrical Switch Gear, Boilers, and Chillers (\$2,750,000)									X											
165	Elevation -- Texaco Master Meter Building, regulating valve and meter									X											
166	Elevation -- West Gibson Tank building and chlorination equipment									X											
167	Elevation of Local Evacuation Route -- 1 Mile Section of LA 56 in Chauvin, LA (Ward 7 Evacuation Routes)									X											
168	Elevation of Local Evacuation Route -- 1.5 Mile Section of LA 315 near the Dularge Bridge (Evacuation Route for Bayou Dularge and Crozier, Floods in a strong south wind)									X											
169	Elevation of Pump Station Roads -- D-19, D-12, and D-5 Pumps									X											
170	Elevation to ABFE -- D-01-04; D-06; D-15; D-21; D-36-37; D-40; D42-44; D-46-51; D 53-54; D-56; D-59-60; D-65; D69 Gear Drives, Motors, and Controls									X											

2020 HMPU Project Status

	Elevation to ABFE -- D-11 Gear Drives, Motors, and Controls																		
	Elevation to ABFE -- D-61 Gear Drives, Motors, and Controls																		
	Elevation to ABFE -- D-62 Gear Drives, Motors, and Controls																		
	Elevation to ABFE -- D-65 Gear Drives, Motors, and Controls																		
	Elevation to ABFE -- D-69 Gear Drives, Motors, and Controls																		
A3	Flood Proof Essential Community Facilities (Power Plants, Substations, Hospitals) (3-8)																		
F1	Flood Proof Terrebonne Parish EOC, Terrebonne Parish General Medical Center, Chabert Medical Center, The TPCG Generating Station and the 2 Consolidated Waterworks Treatment Plants																		
	Generator -- 100KW for Chabert Medical Center																		
	Generator -- 100KW for Terrebonne General																		
I103	Generator -- 100KW for W. Woodlawn Station																		
I104	Generator -- 200KW for South Wastewater Treatment Plant																		
I110	Generator -- Lift Stations Receiving Effluent from Hospitals, Chabert Medical Center (50 KW)																		
I111	Generator -- Lift Stations Receiving Effluent from Hospitals, Terrebonne General Medical Center (50 KW)																		
I112	Generator -- Major Lift Stations, Douglas (50 KW)																		
I113	Generator -- Major Lift Stations, Highland Drive (150 KW)																		
I114	Generator -- Major Lift Stations, Mire (75 KW)																		
I115	Generator -- Major Lift Stations, Westside (50 KW)																		
I116	Generator -- Major Lift Stations, Westview (100 KW)																		
I117	Generator -- Montegut, Pointe Aux Chenes Fire Stations (need 40-50 KW -- \$15,000)																		
I118	Generator -- North Terrebonne Treatment Plant																		
I121	Generator -- Pollution Control, S. Treatment Plant Effluent Lift Station (250 KW)																		
I122	Generator -- Pollution Control, S. Treatment Plant Perimeter Drainage Pump Station (100 KW)																		
I123	Generator -- Port Commission Forced Drainage (50 KW)																		
I124	Generator -- Public Works -- Portable Generator for Bridges (80 KW)																		
J40	Generator Study/Environmental Review/Provision of Generators																		
J41	Generator Study/Environmental Review/Provision of Quick Connects																		
I131	Generators -- Lift Stations Receiving Effluent from Hospitals, Valhi II (125 KW)																		
F8	Investigate and implement localized interior drainage projects at Lower Bayou Drive, Savanne Road, Ringo Coker to Hudson Canal, LA 311 at Hollywood Road, Parish Road 15 at Mandalay, and Susie Canal at Ashland South, which are repetitive loss areas, and reduce its flood potential.																		
I39	Natural Gas Generator																		
I135	Relocation -- Deadwood																		
I136	Relocation -- Jean Charles																		
J9	Replacement of wooden lift station fence/gates with chain link to mitigate wind damage																		
J15	Safe House -- Houma Fire Department 2101 East Tunnel Blvd.																		
I140	Safe room -- Coteau Fire Station																		
I141	Safe Room -- Gov't Towers Parking Structure (Pet Shelter)																		
I143	Wind Retrofit -- Bac-T Lab (install shutters or impact resistant glass on windows, strengthen doors)																		Yes

2020 HMPU Project Status

I144	Wind Retrofit -- Bob Jones Building (Cat 4 or 5)								X					Yes			
J17	Wind Retrofit -- Bourg Fire Department (4317 Hwy 24) Windows with Shutters									X	\$25,000.00						
I145	Wind Retrofit -- Bourg Fire Station, 2 Bay Doors (22'x10', 14'x10') and 3 Windows (36"x36")								X					Yes			
I146	Wind Retrofit -- Buquet Bridge and Klondyke Bridge Tender's Buildings (Cat 3)								X					Yes			
J18	Wind Retrofit -- Coteau Fire Department (2325 Coteau Rd) Window with Shutters									X	\$25,000.00						
I149	Wind Retrofit -- Coteau Fire Station (include main structure, apparatus room, generator room doors)								X					Yes			
I151	Wind Retrofit -- Director's Building (Cat 3)								X					Yes			
I152	Wind Retrofit -- Drainage Building (Cat 3)								X					Yes			
I153	Wind Retrofit -- Evergreen Junior High								X					Yes			
I154	Wind Retrofit -- Fire Stations (central, #2, #3, #4) Shutters								X					Yes			
I155	Wind Retrofit -- Garage Doors (407 Island)								X					Yes			
I157	Wind Retrofit -- Gulf States LTAC								X					Yes			
I159	Wind Retrofit -- Headstart Center								X					Yes			
I160	Wind Retrofit -- Houma Junior High								X					Yes			
I161	Wind Retrofit -- Houma Municipal Auditorium								X					Yes			
J12	Wind Retrofit -- Houma Water Treatment Facility									X							
I164	Wind Retrofit -- Legion Park Middle								X					Yes			
J19	Wind Retrofit -- Little Caillou Fire Department (4588 Hwy 56) Windows with Shutters									X	\$25,000.00						
J20	Wind Retrofit -- Little Caillou Fire Department (5610 Hwy 56) Windows with Shutters									X	\$25,000.00						
J21	Wind Retrofit -- Little Caillou Fire Department (6668 Hwy 56) Windows with Shutters									X	\$25,000.00						
I165	Wind Retrofit -- Mail Library								X					Yes			
I166	Wind Retrofit -- Main Office (Install shutters or impact resistant glass on windows, strengthen doors)								X					Yes			
I167	Wind Retrofit -- Montague, Pointe Aux Chenes Fire Stations (5 Windows at 1466 Hwy 665, 6 Windows at 407 Island Rd, 6 Windows at 1746 Hwy 55)								X					Yes			
J16	Wind Retrofit -- Montegut Fire Department (1105 Hwy 55) Garage Doors									X	\$30,000.00						
I168	Wind Retrofit -- Morgue								X					Yes			
I170	Wind Retrofit -- North Terrebonne Standpipe (strengthen door)								X					Yes			
I172	Wind Retrofit -- Schriever Elementary								X					Yes			
J13	Wind Retrofit -- Schriever Water Treatment Facility									X							
I173	Wind Retrofit -- Sludge Press Building (strengthen doors)								X					Yes			
I174	Wind Retrofit -- South Terrebonne High School								X					Yes			
I175	Wind Retrofit -- Southdown Elementary								X					Yes			
I176	Wind Retrofit -- Terrebonne High School								X					Yes			
J14	Wind Retrofit -- Waterworks Office Complex at 8814 Main Street, Houma, LA									X							
	Wind Retrofit -- West Park Elementary													Yes			
I177	Wind Retrofit and Elevation -- Houma Plant 3 (Install shutters or impact resistant glass on windows, strengthen doors, raise pumps and electrical panels)								X					Yes			
I178	Wind Retrofit and Elevation -- Houma Plant High Service pumps and electrical panels, strengthen door								X					Yes			
I179	Wind Retrofit and Elevation -- Lafort Canal RW PS (elevate pumps and generator, strengthen door)								X					Yes			
I180	Wind Retrofit and Elevation -- Munson PS (Elevate Building, electrical pumps, regulating valves and meters, Install Shutters on windows, strengthen the doors)								X					Yes			
I181	Wind Retrofit and Elevation -- Schriever Plant (install shutters or impact resistant glass on windows, strengthen doors, elevate pumps)								X					Yes			
I182	Wind Retrofit and Elevation -- Shell PS (elevate pumps and electrical panels, strengthen door)								X					Yes			

2020 HMPU Project Status

1183	Wind Retrofit and Elevation -- Williams Street Pump Station (elevate pumps and electrical panels, strengthen door)								X			Yes			
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2020 HMPU Project Status

Source	Project	Status	TP Master Plan (A)	Coastal Wetlands Planning, Protection, & Restoration Act (B)	Coastal Impact Assistance Program (C)	Coastal Protection & Restoration Authority (D)	ESF-14 (TP Long Term Recovery Plan) (E)	TP Hazard Mitigation Plan (F)	TP 1603 DR 2008 Letter of Intent (G)	TP Feasibility Study for Levee Enhancement Projects (H)	Project 2010 Update (I)	New Projects, 2014 Update (J)	Approximate Cost
I43	Drainage Study -- Airport Commission	Completed									X		
B31	Brady Canal Hydrologic Restoration	Completed		X									
B28	Coastwide Reference Monitoring Systems	Completed		X									
B27	Falgout Canal Planting Demonstration	Completed		X									
B26	Floating Marsh Creation	Completed		X									
B25	GIWW Bank Restoration of Critical Areas in Terrebonne Parish	Completed		X									
B24	Isles Dernieres Restoration East Island	Completed		X									
B23	Isles Dernieres Restoration Trinity Island	Completed		X									
B22	Lake Chapeau Sediment Input and Hydrologic Restoration	Completed		X									
B19	Mandalay Bank Protection Demonstration	Completed		X									
B18	New Cut Dune and Marsh Creation	Completed		X									
B16	North Lake Menchant Landbridge Restoration	Completed		X									
B14	Penchant Bases Natural Resources Plan--Increment 1	Completed		X									
B13	Point Au Fer Canal Plugs--Saltwater Intrusion	Completed		X									
B12	Raccoon Island Breakwater Demonstration	Completed		X									
B11	Raccoon Island Shoreline Protection/Marsh Creation	Completed		X									
B9	South Lake De Cade Freshwater Introduction	Completed		X									
B7	Terrebonne Bay Shore Protection Demonstration	Completed		X									
B6	Thin Mat Floating Marsh Enhancement	Completed		X									
B5	Timbalier Island Dune and Marsh Creation	Completed		X									
B4	Timbalier Island Planting Demonstration Overview	Completed		X									
B3	West Lake Boudreaux Shoreline Protection and Marsh Creation	Completed		X									
B1	Whiskey Island Restoration	Completed		X									
E15	Construct Emergency Operations Center	Completed					X						
J35	Develop a Program for Public Information	Completed										X	\$5,000.00
H11	Falgout Canal Water Control Structure to +10'	completed								X			
B2	Whiskey Island Back Barrier Marsh Creation	Completed		X									
C1	Falgout Canal Freshwater Enhancement Phase 1	Completed			X								
	Bayou Decade Ridge Restoration	Completed											
C5	Shoreline Protection on Houma Navigational Canal	Completed			X								
	Bayou Decade Marsh Creation	Completed											
	Bayou Penchant Marsh Creation	Completed											
	HNC-Lake Mechant Marsh Creation	Completed											
J34	Levee Safety Educational Promotions	Completed										X	\$30,000.00
J5	Emergency Preparedness -- Purchase of Drone for Damage Assessment	Completed										X	
J45	Four P25 Motorola Communications Consoles to be located within the Terrebonne 911 Cat. 5 Hurricane resistant facility located at 110 Capital Blvd. to be used for Interoperable Communications between all 15 Terrebonne Fire Districts (13 Fire Departments), Law Enforcement Agencies, OEP, Utilities & Parish Departments (cost \$138,000) replacement due to obsolescence	Completed									X	X	
J2	Communications - Community Alert System (First Call), Reverse 911, Community Hotline, Alert FM, Redundant Phone System at EOC	Completed										X	
I23	Drainage Improvement -- D-3 Upper Montegut Bar Screen Cleaner	Completed									X		

2020 HMPU Project Status

I163	Wind Retrofit -- Juvenile Detention Center	Completed																			X		
I169	Wind Retrofit -- New Roll-up Door at EOC -- 911	Completed																			X		
I156	Wind Retrofit -- Government Tower (Window Screens, Doors)	Completed																			X		
J1	Safe Room - OEP (Substitute)	Completed																					X
I148	Wind Retrofit -- Civic Center (Shutters or Window Film)	Completed																			X		
I150	Wind Retrofit -- Courthouse Annex (Window Film)	Completed																			X		
I158	Wind Retrofit -- Harden Front and Back Doors of Convention Center	Completed																			X		
I171	Wind Retrofit -- Roof of Convention Center	Completed																			X		
I18	Drainage Improvement -- Coteau 1-1B Bar Screen Cleaner	completed																			X		
I20	Drainage Improvement -- D-07 Smithridge Pump Station Bar Screen Cleaner	completed																			X		
I28	Drainage Improvement -- Island Road (Stabilize roadway shoulders and embankment)	completed																			X		
I33	Drainage Improvement -- Michael Street, Buquet Street, and Daigle Street (Increase Culvert size to drain streets during heavy rain fall)	completed																			X		
I147	Wind Retrofit -- City Hall (IT Department)	Completed																			X		
J46	Generator -- 100KW for Terrebonne General	Completed																					X
J46	Safe Room - Bayou Country Road	Completed																					X
C4	North Lost Lake Marsh Creation/Enhancement	Construction																					X
J15	Safe House -- Houma Fire Department 2101 East Tunnel Blvd.	Construction																					X
I175	Wind Retrofit -- Southdown Elementary	Construction																			X		
B29	Coastwide Nutria Control Program	Continous																					X
F9	Review the existing floodplain ordinance and evaluate ways to improve the Parish's "Community Rating System (CRS) rating to reduce the flood insurance premium. Choose from the variety of methods and projects available that can be implemented to improve the CRS rating.	Continous																					X
E9	Reduce the Potential for Future Flood Losses through the Terrebonne Parish Flood Hazard Mitigation Program	Continous																					X
I139	RL and Severe RL Properties -- Elevation, Acquisition, Mitigation Reconstruction (Parish)	continous																					X
E10	Increase Affordable Housing throughout the Parish	Continuous																					X
F5	Increase Public Awareness of Hazards and Hazard Areas	Continuous																					X
F4	Promote Purchase of Flood Insurance	Continuous																					X
G2	Elevation and Reconstruction-- Residential	Continuous																					X
B20	Madison Bay Marsh Creation & Terracing	Deauthorized																					X
I123	Generator -- Port Commission Forced Drainage (50 KW)	Deauthorized																					X
J12	Wind Retrofit -- Houma Water Treatment Facility	Deauthorized																					X
J13	Wind Retrofit -- Schriever Water Treatment Facility	Deauthorized																					X
I181	Wind Retrofit and Elevation -- Schriever Plant (install shutters or impact resistant glass on windows, strengthen doors, elevate pumps)	Deauthorized																					X
I17	Drainage Improvement -- Bonanza Pump Station D-27 Tideflex valves on discharge pipes	Design Complete																					X
H23	Upper Dularge East Levee to +10'	Engineering Funded																				X	
H12	Cane Break to Ashland Levee -- 3.4 Miles to +8'	Engineering Funded																				X	
	Bayou Dularge Ridge Restoration	Engineering Funded																					

2020 HMPU Project Status

	Bayou Terrebonne Ridge Restoration	Engineering Funded												
	Increase Atchafalaya Flow to Eastern Terrebonne	Engineering Funded												
C8	Atchafalaya Long Distance Sediment Pipeline	Feasibility Study Completed			X									
H5	Ashland North -- 1.5 Miles to +8'	Funded								X				
H15	Upper Dularge East Levee -- 5.2 Miles to +8'	Funded								X				
	Small Bayou LaPointe Ridge Restoration	Funded												
I136	Relocation -- Jean Charles	Funded										X		
J10	150KW generators for Mire, Idlewild, and Elysian Lift Stations	Funding Requested											X	
D9	Barrier Shoreline Restoration in Terrebonne Parish	Funding Requested				X								
D8	Ridge Habitat Restoration in Terrebonne Parish	Funding Requested				X								
B20	Terrebonne Bay Marsh Creation - Nourishment	Funding Requested			X									
I138	Generator -- Public Works -- Forced Drainage Pump Station D-03, D-07, D-12, 20KW	Funding Requested										X		
J8	100 Amp, 3-way SS Disconnects for generator ready connections (approx. 40 Lift station sites)	Funding Requested											X	
	Generator -- 100KW for Chabert Medical Center	Funding Requested												
I103	Generator -- 100KW for W. Woodlawn Station	Funding Requested										X		
I104	Generator -- 200KW for South Wastewater Treatment Plant	Funding Requested										X		
I110	Generator -- Lift Stations Receiving Effluent from Hospitals, Chabert Medical Center (50 KW)	Funding Requested										X		
I111	Generator -- Lift Stations Receiving Effluent from Hospitals, Terrebonne General Medical Center (50 KW)	Funding Requested										X		
I112	Generator -- Major Lift Stations, Douglas (50 KW)	Funding Requested										X		
I113	Generator -- Major Lift Stations, Highland Drive (150 KW)	Funding Requested										X		
I114	Generator -- Major Lift Stations, Mire (75 KW)	Funding Requested										X		
I115	Generator -- Major Lift Stations, Westside (50 KW)	Funding Requested										X		
I116	Generator -- Major Lift Stations, Westview (100 KW)	Funding Requested										X		
I117	Generator -- Montegut, Pointe Aux Chenes Fire Stations (need 40-50 KW -- \$15,000)	Funding Requested										X		
I118	Generator -- North Terrebonne Treatment Plant	Funding Requested										X		
I121	Generator -- Pollution Control, S. Treatment Plant Effluent Lift Station (250 KW)	Funding Requested										X		
I122	Generator -- Pollution Control, S. Treatment Plant Perimeter Drainage Pump Station (100 KW)	Funding Requested										X		
B21	Lower Bayou LaCache Hydrologic Restoration	Obsolete			X									
B10	Ship Shoal: Whiskey West Flank Restoration	Obsolete			X									
J38	Vehicle lift for HPD EOC	Obsolete											X	\$1,500.00
J40	Generator Study/Environmental Review/Provision of Generators	Obsolete											X	\$650,000.00
J41	Generator Study/Environmental Review/Provision of Quick Connects	Obsolete											X	\$500,000.00
I141	Safe Room -- Gov't Towers Parking Structure (Pet Shelter)	Obsolete										X		
C6	Houma Navigational Canal Lock	Partial			X									
C7	Mississippi River Long Distance Sediment Pipeline	Partial			X									
J11	20 Pump Stations/Scada/Telemetry, the automation of forced drainage Pump Stations to reduce response time and flooding. Monitored and controlled remotely during storm events	Partially funded by TPCG											X	\$3,000,000.00
I128	Generator -- Public Works, Buquet Bridge (75 KW 120/240 Volt)	funded										X		
I129	Generator -- Public Works, Klondyke Bridge (75 KW 120/240 Volt)	funded										X		
	Timbalier Islands Barrier Island Restoration	Planning Funded												

2020 HMPU Project Status

	Isle Dernieres Barrier Island Restoration	Planning Funded												
D5	Marsh Restoration Using Dredged Material in Terrebonne Basin	Planning Funded					X							
G1	Automatic Bar Screen Cleaners (Pump Stations -- D-58, D-03, D-69, D-22, D-28, D-07, D-21)	Redundant							X					
I124	Generator -- Public Works -- Portable Generator for Bridges (80 KW)	Redundant										X		
I131	Generators -- Lift Stations Receiving Effluent from Hospitals, Valhi II (125 KW)	Redundant										X		
I140	Safe room -- Coteau Fire Station	Redundant										X		
D4	Multipurpose Operation of the Houma Navigational Canal	Redundant with C6?					X							
E12	Plan, Implement, and Construct Parish wide Sewerage	Redundantw/ 7?						X						
	Bayou Chene Floodgate	TCLD												
H16	Barrier Plan (Big Bayou Black/Gibson) 1/3 of project -- 8.4 Miles to +6.5'	TCLD										X		
H27	Barrier Plan (Big Bayou Black/Gibson) 1/3 of project -- 8.4 Miles to +6.5'	TCLD										X		
H8	Barrier Plan (Big Bayou Black/Gibson) 1/3 of project -- 8.4 Miles to +6.5'	TCLD										X		
D1	Morganza to the Gulf	Underway					X							
B17	North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management	Underway			X									
B15	Nutria Harvest for Wetland Restoration Demonstration	Underway			X									
H20	Cane Break to Ashland Levee to +10'	Underway										X		
J37	Education regarding flood safety and property valuation	Underway											X	\$35,000.00
J6	Communications Tower North Campus/Telemetry/Forced Drainage	Underway											X	\$400,000.00
I162	Wind Retrofit -- Houma PD	Completed										X		
I1	Blackstart Capacity -- Houma Power Plant	Completed										X		\$1,200,000.00
I5	Communications for Water Treatment -- 41 Mobiles											X		
I96	Emergency Preparedness -- Military Showers											X		
F2	Develop Master Drainage Plan								X					
E8	Develop a Detailed Business Recruitment and Retention Plan							X						
G4	Forced Drainage 1-1B Channel Improvement (Maintenance & Dredging)									X				
H2	Ashland/Woodlawn -- 2.9 Miles to +8'											X		
H19	Brady Road Levee in Dularge -- 1 mile to +10'											X		
E5	Construct Transportation Improvements Designed to Increase the Economic Viability of Terrebonne Parish							X						
I8	Drainage Improvement -- (Chabert Medical Center Levee/Houma Industrial Park) Build Levee from Thompson Road to Industrial Pump Station											X		
E4	Educate the Public in Disaster Awareness							X						
I95	Emergency Preparedness -- Message Boards											X		
I97	Emergency Preparedness -- Nursing Home Evacuation Coordination/Plan											X		
H17	Susie Canal Improvements in Grand Caillou to +10'										X			
E14	Update Parish Emergency Operations Plan							X						
C2	Bayou Pointe aux Chenes Ridge Restoration													
	Beach and Back Barrier Marsh Restoration				X									
	Caillou Lake-Lake Mechant Marsh Creation													
	Falgout Canal Marsh Creation													
	Golden Meadow-Montegut Marsh Creation - Component A													



2020 HMPU Project Status

	North Terrebonne Bay Marsh Creation													
	Point Au Fer Island Marsh Creation													
	Point Au Fer Island Shoreline Protection													
	Atchafalaya River Diversion													
B30	Central Terrebonne Freshwater Enhancement			X										
D6	Chacahoula Basin Hydrologic Restoration					X								
C3	Closure of Breaches of GIWW				X									
	Dulac-Cocodrie Marsh Creation													
D7	Freshwater Introduction via Blue Hammock Bayou					X								
	Lower Atchafalaya Marsh Creation													
	Mauvais Bois Ridge Restoration													
	Terrebonne GIWW Marsh Creation													
F10	Adopt additional residential and commercial building regulations, which include stricter building standards, Land Use Regulations throughout the Parish consistent with to those that exist within the Urban Services District of Houma and incorporate dry flood proofing techniques. When the International Building Codes become mandatory, they will supersede the existing codes.									X				
H10	Bayou Grand Caillou Water Control Structure to +10'										X			
H9	Bayou Point Au Chene Sluice Gate to +10'										X			
H4	Brady Road Levee in Dularge -- .25 miles to Falgout Canal to +8'										X			
J24	Collaborate with communities to design, evaluate, and implement Relocation Strategies for communities located outside of the levee systems (Tribal)												X	
I4	Communications (Fire, Law Enforcement, Parish, Other) Equipment purchased 2003-2013 now obsolete. Need to purchase next model.											X		
I6	Communications Tower (Theriot, LA)											X		
I16	Drainage Improvement -- Benoit Crossing (Remove Portable Pump and place permanent pump)											X		
I29	Drainage Improvement -- Isle of Cuba Transfer (Off-site fuel storage -- gas and diesel)											X		
I35	Drainage Improvement -- Old Spanish Trail 6-1B (Place area under Force Drainage to Stop Backwater Flooding)											X		
I39	Drainage Improvement -- Savanne Road to Summerfield (Create a force drainage area to stop backwater and storm events flooding)											X		
H22	East Theriot to +10'									X				
J42	Educational video on evacuation options												X	\$15,000.00
I94	Emergency Preparedness -- Creation of alternative staging area											X		
J7	Emergency Preparedness -- Evacuation Sign Purchase and Placement												X	
J3	Emergency Preparedness -- Gauge installation at pump stations near major roadways and bridges/floodgates												X	
I98	Emergency Preparedness -- Small Power Radio Station for Hazard Alert										X			
J25	Ensure that current and future building elevations take the needs of those individuals with access and functional needs into account. This includes the incorporations of lifts. (Tribal)												X	
E7	Expand and Improve Parish wide Sewerage Facilities						X							
H25	Extension Orange Street Projects in Grand Caillou -- 2.0 Miles to +10'										X			

2020 HMPU Project Status

A2	Feasibility and Practicality of New Shelters (3-8)			X									
I100	Flood Protection -- Sea wall at Public Works Yard Grand Caillou Road										X		
I101	Flood Wall and Pump Installation for Terrebonne General										X		
D2	Gibson to Houma Hurricane Protection					X							
D3	Houma and Vicinity Hurricane Protection					X							
E2	Identification of Donor and Placement Sites for Sediment Deposition									X			
J26	Identify mechanisms to protect the Island Road from surge and tidal impacts. This might include engineered solutions to decrease wave impacts and/or erosion control mechanisms along the edges of the road. (Tribal)												X
J22	Identify vulnerable historic and cultural resources, as well as opportunities to protect and/or relocate historic assets (Tribal)												X
E1	Implement Capital Improvement Program to Enhance Inner Ring of Tidal Protection/Forced Drainage Levees									X			
H1	Industrial Blvd Gap -- 2.1 Miles to +8'										X		
I132	Infiltration Reduction of Underground Wastewater System (Testing needed for Locations)											X	
H7	Intracoastal Canal Near Palm Street -- 2.3 Miles to +6.5'										X		
J30	Library Storm Preparation and Recovery Flashcards												X
H24	Lower Point Au Chene -- .85 Miles to +10'										X		\$25,000.00
I133	Modification to Village East Lift Station (Conversion from Dry Pit to Submersible Station)											X	
I134	New Water Storage Tank -- Terrebonne General Medical Center (1,000,000 Gallons, \$750,000)											X	
E11	North-South Hurricane Evacuation Route									X			
J44	Portable billboards to update emergency instructions or evacuation routes/changes												X
J23	Protect historic and cultural resources, such as cemeteries and gathering places from all hazards (Tribal)												X
J36	Review capacity to increase nonresidential structure mitigations												X
E3	Review of Louisiana Coastal Zone Management Program									X			
J29	Safe Harbor Study and Education Campaign												X
E6	Secure Congressional Authorization and Construct the Morganza to the Gulf Hurricane Protection System and Enhance and Protect Critical Waterways in the Parish.												X
J43	Signage for evacuation routes												X
F6	Sponsor a "Multi-Hazard Awareness" Week												X
J33	Storm Preparedness Literacy Project												X
J32	Storm Recovery Phase Code Enforcement Capacity												X
J31	Structure Inventory												X
H	Susie Canal Improvements in Grand Caillou -- 5.3 Miles to +8'												
H26	West Ward 7 -- 15.9 Miles to +10'												X
J27	Work with communities currently residing in flood prone areas, particularly outside of the levee systems, on the identification of flood mitigation and climate adaptation measures to reduce flood risk. (Tribal)	UHN/Tulane Study	afoot										X

2020 HMPU Project Status

J28	Work with the communities currently residing in at risk areas on the development of evacuation plans including access to shelter and transportation assistance as needed. (Tribal)												X
J9	Replacement of wooden lift station fence/gates with chain link to mitigate wind damage												X
I159	Wind Retrofit -- Headstart Center											X	
I137	Generators--Montegut Middle School							X				X	
I177	Wind Retrofit and Elevation -- Houma Plant 3 (Install shutters or impact resistant glass on windows, strengthen doors, raise pumps and electrical panels)											X	
I22	Drainage Improvement -- D-20 Schriever Pump Station Bar Screen Cleaner											X	
I172	Wind Retrofit -- Schriever Elementary											X	
I9	Drainage Improvement -- Ann Carroll, Jean Street, Duet Street, and Grace Street (Upgrade Culvert size to drain water from middle of streets)											X	
I113	Drainage Improvement -- Bayou Lacache Pump Canal (Widen and Deepen Canal from Lacache Estate to Pump Station)											X	
I114	Drainage Improvement -- Bayou Lacarpe (Widen Channel from Tunnel Blvd to pump station and upgrade bar screen cleaner		?									X	
I7	Generator -- 150KW for Valhi Lift Station		?										
I7	Pursue elevation/acquisition/reconstruction and flood proofing projects and structural solutions to flooding.		ongoing						X				
	(From D-12 to Cement Lined Ditch, Widen and Deepen												
I12	Communications -- Conversion of SCADA system from Phone to Radio (Airbase Jr., Applied Hydraulics, Ashland North 1, Ashland North 2, Ashland South, Bobtown, Bourg Heights, Central Heights, Clinton St. Package Plant, Dulac, Edgewood, Frank, Grmoco, Green Acres 1, Green Acres 2, Indian Ridge, Jail, James, Lafayette Woods, Mary Hughes, Moffet/Saia, Orange/Marjorie, Patriot Point, Presque Isle 1, Presque Isle 2, Riley, Rounds, Sandcastle, Sarah, Smithridge 1, Smithridge 2, Thunderbird, Village East)												X
I13	Communications -- Hazard Warning System (Gauges Strategically Placed, N-Star)												X
I17	Connect Station to emergency generator -- Munson PS												X
I110	Drainage Improvement -- Ashland North D-60 Tideflex valves on discharge pipes												X
I111	Drainage Improvement -- Bayou Grand Caillou (D-9 South the Landfill Road, Widen and Deepen Channel)												X
I112	Drainage Improvement -- Bayou Grand Caillou (From Oaklawn School to D-9 Pump Station, Widen and Deepen Channel)												X
I115	Drainage Improvement -- Bellaire Drive (Increase Culvert Sizes and Slope Ditches)												X
I119	Drainage Improvement -- Crochetville Road Storm Water Diversion canal with flap gates												X
I121	Drainage Improvement -- D-13 Industrial Blvd. Motorized screw gates												X
I124	Drainage Improvement -- Evelyn Lateral Between (Subsurface drainage in lateral ditch from Frank street to Perky street)												X

### 2020 HMPU Project Status

127	Drainage Improvement -- Industrial Pump D-13 Trash Screen and Bar Screen Cleaner																							X			
131	Drainage Improvement -- Lower Montegut D-2 Tideflex Valves on discharge pipes																							X			
132	Drainage Improvement -- Martin Luther King Blvd (Increase Culvert Size in pump canal under highway in bonanza system)																							X			
134	Drainage Improvement -- Oak Forest Street (Increase in Culvert Sizes and Pump Station)																							X			
136	Drainage Improvement -- Old Spanish Trail 6-1B (Put Screw Gates on Culvert Crossings)																							X			
138	Drainage Improvement -- Royce Street (Increase culvert size to stop rainfall flooding)																							X			
140	Drainage Improvement -- South Ellendale Estates Lateral (Dig and possible widen lateral from subdivision to Hanson Canal)																							X			
145	Dry Floodproof RL Structure Next to Robinson Canal (Meeting #3)																							X			
146	Dry Floodproofing -- Infiltration Reduction of Underground Wastewater Collection System																							X			
147	Elevation -- Bayou Dularge Tank building and chlorination equipment																							X			
148	Elevation -- Fire Station (raise 2', history of flooding, 75'x75' Slab) (1466 Hwy 665)																							X			
149	Elevation -- Fire Station in Chauvin																							X			
150	Elevation -- Generator for Riley Drive Lift Station																							X			
151	Elevation -- Grand Caillou Tank building																							X			
152	Elevation -- Industrial Blvd from Van Ave to Pump Station																							X			
153	Elevation -- Leachate Removal System																							X			
154	Elevation -- Lift Stations with Self Priming Pumps (Bourg Heights, Edgewood, Ashland North, Ashland North II, Ashland South, Woodlawn Ranch, Saia, Prospect, Carriage Cove, Green Acres I, Green Acres II, Lafayette Woods, Lorraine Park, Presque Isle, Presque Isle II, Chabert Medical Center, Service Center, Smithridge I, Smithridge II, South Terrebonne Estates, Riley Drive)																							X			
155	Elevation -- Lift Stations with Submersible Pumps (Bobtown, Dulac, Orange Street, Airbase Jr., Patriot Point, Rounds Road, Applied Hydraulics, Gemoco, Indian Ridge, James Road, Sandcastle, Thunderbird Road)																							X			
156	Elevation - Lower Dulac Tank Building and Chlorination equipment																							X			
157	Elevation -- Montegut Station (100'x75')																							X			
159	Elevation -- Orange Street Wastewater Plant Controls																							X			
160	Elevation -- Pointe-Aux Chenes Pump Station building and electrical pump, regulating valve and meter																							X			
161	Elevation -- Robinson Canal P.S. Building, electrical pump, regulating valve, and meter																							X			
162	Elevation -- Scale																							X			
163	Elevation -- South Terrebonne Pump Station building and pump																							X			
164	Elevation -- Terrebonne General Medical Center Main Plant Electrical Switch Gear, Boilers, and Chillers (\$2,750,000)																							X			

2020 HMPU Project Status

I65	Elevation -- Texaco Master Meter Building, regulating valve and meter											X		
I66	Elevation -- West Gibson Tank building and chlorination equipment											X		
I67	Elevation of Local Evacuation Route -- 1 Mile Section of LA 56 in Chauvin, LA (Ward 7 Evacuation Routes)											X		
I68	Elevation of Local Evacuation Route -- 1.5 Mile Section of LA 315 near the Dularge Bridge (Evacuation Route for Bayou Dularge and Crozier, Floods in a strong south wind)											X		
I69	Elevation of Pump Station Roads -- D-19, D-12, and D-5 Pumps											X		
I70	Elevation to ABFE -- D-01-06, 11, 15, 21, 36, 37, 41-62, 65, 69 Gear Drives, Motors, and Controls											X		
A3	Flood Proof Essential Community Facilities (Power Plants, Substations, Hospitals) (3-8)		X											
F1	Flood Proof Terrebonne Parish EOC, Terrebonne Parish General Medical Center, Chabert Medical Center, The TPCG Generating Station and the 2 Consolidated Waterworks Treatment Plants											X		
F8	Investigate and implement localized interior drainage projects at Lower Bayouside Drive, Savanne Road, Ringo Cocks to Hudson Canal, LA 311 at Hollywood Road, Parish Road 15 at Mandalay, and Susie Canal at Ashland South, which are repetitive loss areas, and reduce its flood potential.											X		
I135	Relocation -- Deadwood											X		
I143	Wind Retrofit -- Bac-T Lab (install shutters or impact resistant glass on windows, strengthen doors)											X		
I144	Wind Retrofit -- Bob Jones Building (Cat 4 or 5)											X		
J17	Wind Retrofit -- Bourg Fire Department (4317 Hwy 24) Windows with Shutters												X	\$25,000.00
I145	Wind Retrofit -- Bourg Fire Station, 2 Bay Doors (22'x10', 14'x10') and 3 Windows (36"x36")											X		
I146	Wind Retrofit -- Buquet Bridge and Klondyke Bridge Tender's Buildings (Cat 3)											X		
J18	Wind Retrofit -- Coteau Fire Department (2325 Coteau Rd) Window with Shutters												X	\$25,000.00
I149	Wind Retrofit -- Coteau Fire Station (include main structure, apparatus room, generator room doors)											X		
I153	Wind Retrofit -- Evergreen Junior High											X		
I154	Wind Retrofit -- Fire Stations (central, #2, #3, #4) Shutters											X		
I155	Wind Retrofit -- Garage Doors (407 Island)											X		
I157	Wind Retrofit -- Gulf States LTAC											X		
I160	Wind Retrofit -- Houma Junior High											X		
I161	Wind Retrofit -- Houma Municipal Auditorium											X		
I164	Wind Retrofit -- Legion Park Middle											X		
J19	Wind Retrofit -- Little Caillou Fire Department (4588 Hwy 56) Windows with Shutters												X	\$25,000.00
J20	Wind Retrofit -- Little Caillou Fire Department (5610 Hwy 56) Windows with Shutters												X	\$25,000.00
J21	Wind Retrofit -- Little Caillou Fire Department (6668 Hwy 56) Windows with Shutters												X	\$25,000.00
I165	Wind Retrofit -- Main Library											X		
I167	Wind Retrofit -- Montague, Pointe Aux Chenes Fire Stations (5 Windows at 1466 Hwy 665, 6 Windows at 407 Island Rd, 6 Windows at 1746 Hwy 55)											X		

2020 HMPU Project Status

J16	Wind Retrofit -- Montegut Fire Department (1105 Hwy 55) Garage Doors											X	\$30,000.00
I168	Wind Retrofit -- Morgue											X	
I170	Wind Retrofit -- North Terrebonne Standpipe (strengthen door)											X	
I173	Wind Retrofit -- Sludge Press Building (strengthen doors)											X	
I174	Wind Retrofit -- South Terrebonne High School											X	
I176	Wind Retrofit -- Terrebonne High School											X	
J14	Wind Retrofit -- Waterworks Office Complex at 8814 Main Street, Houma, LA												X
	Wind Retrofit -- West Park Elementary												
I178	Wind Retrofit and Elevation -- Houma Plant High Service pumps and electrical panels, strengthen door											X	
I179	Wind Retrofit and Elevation -- Lafort Canal RW PS (elevate pumps and generator, strengthen door)											X	
I180	Wind Retrofit and Elevation -- Munson PS (Elevate Building, electrical pumps, regulating valves and meters, Install Shutters on windows, strengthen the doors)											X	
I182	Wind Retrofit and Elevation -- Shell PS (elevate pumps and electrical panels, strengthen door)											X	
I183	Wind Retrofit and Elevation -- Williams Street Pump Station (elevate pumps and electrical panels, strengthen door)											X	
I199	Floodproof -- Terrebonne Parish General Medical Center, The TPCG Generating Station, and the 2 Consolidated Waterworks Treatment Plants											X	

2020 HMPU Project Status

Project	Responses, Comments or Notes	Requested by	Update for 2020	To Do
Hanson Canal- Chacahoula Pump Station	In process.			
Hanson Canal Generators -			Purchased	
Elliot Jones/Geraldine Pump Stations - WSI*			Verbal from Governor	Get President into discussions with the Governor.
Bayou Black Pump Station - WSI			Application through PDM 2019	
Fire House Hardening - Windows and Doors	Volunteer stations primarily.			
Firehouse Generator Project	Funding request pending.		Montegut and Pointe au Chenes served	Check with Sheriever and then down the bayou for next time.
Black Start Generator - Utility Department	Funded.			
Pump Station Generator - Public Works	Funding request pending.			
Oyster Bed Construction Phase	Partially funded.		Application in development for PDM 2019	
Living Mitigation - Lake Boudreaux Construction Phase	Partially funded with CDBG through LA SAFE.		In process. Funding required for 100%	
HNC Pump Station- WSI				
Cypress Grove Culverts and Sluice Gates				
Lake Boudreaux Shoreline Stabilization Project - Ongoing				
Lake Barre' Living Shoreline Protection Project			completed - why here?	
Lake Felicity Ridge Restoration Project			In CPRA 2012 plan. In latest?	
Match Assistance Program	For individuals.	Planning Department - RAMP	Completed.	
Local Support for Mitigation Activities - Match			Not put to council yet. Elevators of particular interest.	
Coordinate Recreation Activities with Stormwater Retention				
Incorporate Regional Stormwater Management project with State Watershed Initiative			In process through SCPDC/WSI	
Combining Traditional Elevation and Restoration with Stormwater Retention or Soil Stabilization Projects			Elevations/Recons in 2019 FMA application	
Liberty Street Dredging and Marsh Creation				
Levee District Boudreaux Marsh Terrace Creation				
Cypress Tree Plantings for Natural Retention and Shoreline Stabilization	In partnership with NGOs, the Tree Board and corporate sponsors.	Planning Department - RAMP		
Develop H&H Study List for Advance Assistance			Lacarbe in 2019 FEMA application.	
Survey major thoroughfares for shoreline hardening - avoid undermining o transportation routes				
H&H Studies on lake shorelines and marsh projects				
Dual Use Park and Regional Stormwater Retention or Detention as Necessary				
1-1A Stormwater Retention Basin				
Identify Opportunities/seek funding for engineering, H&H Studies for living shorelines				
Identify Opportunities/seek funding for engineering, H&H Studies for feasible marsh creation or restoration options.				
Seek opportunities to work with university system/ academics to study the efficacy o new technologies				
Study permit application support initiatives and regulatory advocacy to promote private investment in restoration and protection efforts			2018 student study on alternatives.	
Westside Stormwater Detention Project				
Study permit application support initiatives and regulatory advocacy to promote private investment safer, more energy efficient structures			Duplicate	
Research avenues to identify any and all funding sources to support private investment in flood or wind mitigation efforts including new construction.				
Wonder Lake Environmental Control Structures				
Pollution Control Operator's Room Hardening				
1-1A Drainage Pump Station @ Fannie Street				
Elevation of Savanne Road- Rouses Going West to curve		Pollution Control		
5 New Company vehicles Forced Drainage Levee Maintenance		Forced Drainage		
20 5:1 M22 Gear Drives for Woodlawn Pump Station and Coteau Pump Stations.		Pollution Control		
Bar screen cleaners for Woodlawn Station and also 1-1b Hwy 182 Pump Station		Forced Drainage		
2 Gradals 4400 xl / Daily maintenance and storm debris cleanup.		Forced Drainage		
1 vacuum truck / culvert cleaning / storm response		Forced Drainage		
1 50ft boom excavator with tree cutter attachment		Forced Drainage		
Monarc /Hollywood outfall channel / Drainage improvments /		Christa Duplantis	Not relected - Priority?	
Alma at Westside Drainage improvement project		Forced Drainage	Selected for funding from PDM 2018	
Cat 5 Public Works / Drainage office / North Campus		Forced Drainage		
Rebuild and relocate the 1-1a Bonanza Levee		Forced Drainage		
Rebuild and relocate the Donner Chacahoula Levee		Forced Drainage		
Revitalize 10 Drainage Pump Stations		Forced Drainage		
Remote Weather Stations at Fire Stations throughout Parish		Forced Drainage/OEP		
Vehicles for various departments due to obsolescence/age			2 for HPD (2018 and 2019), one for Planning, Finance, and Head Start (all 2019).	
Shell/Savanne regional Stormwater Retention and Recreation Facility				
Retraining and educational programs for economic stability and local job creation			Fletcher coastal program.	
Investigate projects to improve drainage improvements down Grand Caillou/Dulac and identify and fund specific projects	submitted during review	Steering Committee		

2020 HMPU Project Status

Research the benefit of bulk-heading of lands on Shrimpers Row that meet with th Navigational Canal to protect shorelines and property and identify and fund specific projects	submitted during review	Steering Committee		
Research the effect of erosion and degraded marsh conditions on pipelines to support coastal restoration or protection efforts.	submitted during review	Steering Committee		

\* State Watershed Initiative



## **4.0 §201.6 (c)(3) HAZARD MITIGATION STRATEGIES**

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Information presented below provides documentation in conformance with sections (c)(3)(i, ii, iii, and iv) relative to mitigation strategies evaluated for hazards identified in Terrebonne Parish, Louisiana.

### **4.1 §201.6 (c)(3)(i) A description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.**

The Terrebonne Parish HMPU Steering Committee reviewed and analyzed the risk assessment evaluation performed for the parish as well as goals reflective of that risk assessment. Goals and action items that would have the greatest benefit in reducing or eliminating hazard damage to the parish were identified. The evaluation criteria used in determining these goals and action items followed the Zurich Flood Resilience Alliance Approach from page 34 of this plan.

The goals developed to reduce or avoid long-term vulnerabilities to the identified hazards are listed below:

**Goal 1:** Identify and pursue preventive measures that will reduce future damages from hazards.

**Goal 2:** Enhance public awareness, *public education*, and understanding of disaster preparedness.

**Goal 3:** Reduce repetitive flood losses in the parish.

**Goal 4:** Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards.

**Goal 5:** Assess the feasibility of setting a uniform standard of protection incorporated into all drainage, development and mitigation activities.

### **4.2 §201.6 (c)(3)(ii) The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.**

The Terrebonne Parish Hazard Mitigation Plan Update Committee identified several projects that would reduce and/or prevent future damage from naturally occurring hazard events. This coordinated effort, which included the planning committee, the consultant team, and other engineering representatives, was accomplished with frequent and open

communications including committee meetings, telephone conversations, emails, and face-to-face meetings.

The projects and resulting action items relate to community goals which are presented immediately following the Project List attachment. Projects include those that may be eligible under the proposed Building Resilient Infrastructure and Communities that will be available starting in 2020. The Parish specifically reached out to entities that are responsible for the community lifelines in the Parish to capture the current conditions and projects that could increase the resilience of those critical infrastructure assets and service providers. A list of outreach efforts and meetings is included in Attachment c4-2.

The Parish will continue to focus on hardening of critical structures. The Parish has already wind hardened the Government Tower, the Generating Station, the Houma Police Department, and the Courthouse Annex, and has shutters on the Houma Fire Department. The TOHSEP office was moved to a Cat 5 building outside the SFHA as was the majority of the Public Works offices, the Juvenile Justice Facility and the Animal Shelter. Each of these buildings and the fire departments have redundant power and the span bridges and pump stations are funded for redundant power, which will be in place in 2020. Advances in communications and evacuation procedures and routes have also been accomplished along with an update to the Flood Response Plan.

Regardless of the topic, education was central to all activities reviewed. Ongoing efforts were applauded, but in most instances, increased education was identified as a necessary component of any resulting plan. For example, the evacuation routes have been developed, but are not widely known. The Parish is investing in a flood gate and lock system backed up by pump stations and retention basins. The general public should have access to training that explains how the system works together, and who is responsible for what element of the process. Educational initiatives are also necessary to bring industries a more detailed knowledge of the safety and resilience practices including insurance professionals, real estate interests, banks and builders. Without the education, support and enforcement would be frustrating, expensive, and less productive, it was decided, than to work toward a common goal. Action items and the proposed project list includes outreach initiatives from the Multijurisdictional Program for Public Information, Levee Safety, Safe Harbor, etc. The objectives for education are listed below Goal 3.

The established and agreed upon objectives and actions relative to the established goals are as follows. All projects are in Attachment c3-1.

- **Goal 1: Identify and pursue preventative measures that will reduce future damages from hazards**
  - **Objective 1.1:** Ensure existing structures are structurally sound to endure hurricane-force winds
    - Action 1.1.1: Wind harden structures*
      - Timeframe: 1-5 years, as funding permits
      - Funding: HMGP, local, regional, and other federal
      - Staff: Public Works, Planning and Zoning

- Hazard Event Mitigated: Hurricane
- **Objective 1.2:** Ensure all citizens and employees of Terrebonne Parish are safe from high winds (hurricanes and tornado related)
  - Action 1.2.1: Construct safe rooms at critical facilities and assess whether new structures should include a category 5 area for employees*
    - Timeframe: 1-5 years, as funding permits
    - Funding: HMGP, local, regional, and federal
    - Staff: Public Works, Planning and Zoning, Public Safety
    - Hazard Event Mitigated: Hurricane/Tornado
  - Action 1.2.2: Expand the coverage and participation in the Parish's hazard early warning system.*
    - Timeframe: 1-5 years, as funding permits
    - Funding: BRIC, local, state and regional.
    - Staff: Office of Emergency Preparedness
    - Hazard Event Mitigated: Hurricane/Tornado
- **Objective 1.3:** Ensure all first responders are adequately equipped to respond to a storm event
  - Action 1.3.1: Purchase or upgrade communication devices as necessary to ensure interoperability among first responders and develop recurring cost funding source.*
    - Timeframe: 1-5 years, as funding permits
    - Funding: HMGP, local, regional, and federal
    - Staff: Parish, Public Safety, 9-1-1
    - Hazard Event Mitigated: Hurricane/Tornado/Flooding/Levee Failure
  - Action 1.3.2: Purchase generators for critical facilities (see Attachment c3-1 for locations) to ensure operation during and after a hazard event*
    - Timeframe: 1-5 years, as funding permits
    - Funding: HMGP, local, regional, and federal
    - Staff: Public Safety, Public Works
    - Hazard Event Mitigated: Hurricane/Tornado/Flooding/Levee Failure
- **Objective 1.4:** Protect citizens from saltwater intrusion
  - Action 1.4.3: Continue to construct Morganza to the Gulf storm surge protection levee and proposed lock system to reduce the effects of saltwater intrusion*
    - Timeframe: 1-5 years
    - Funding: local, federal
    - Staff: Public Works, Planning and Zoning
    - Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion

- **Objective 1.5:** Reduce the effects of Land Subsidence
  - Action 1.5.1: Pursue approvals and funding for coastal restoration projects such as sediment diversions to reduce land subsidence in coastal areas.*
    - Timeframe: Ongoing
    - Funding: Local
    - Staff: Planning and Zoning, Public Works
    - Hazard Event Mitigated: Coastal Erosion/Land Subsidence
  - Action 1.5.2: Study foreseeable subsidence that is often correlated with forced drainage areas under pump, and retention options if needed.*
    - Timeframe: Ongoing
    - Funding: local, federal
    - Staff: Existing parish administration, DCRP
    - Hazard Event Mitigated: Coastal Erosion/Land Subsidence
  - Action 1.5.3: Monitor agricultural activities and encourage smart farming practices to reduce soil compaction and acceleration of subsidence*
    - Timeframe: Ongoing
    - Funding: local, federal
    - Staff: Planning and Zoning
    - Hazard Event Mitigated: Land Subsidence
- **Objective 1.6:** Protect historic and cultural resources, such as cemeteries and gathering places from all hazards
  - Action 1.6.1: Identify vulnerable historic and cultural resources, and opportunities to protect and/or relocate historic assets threatened by sea level rise*
    - Timeframe: Ongoing
    - Funding: local, federal
    - Staff: Planning and Zoning
    - Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion/Land Subsidence
- **Objective 1.7:** Protect critical facilities from lightning strikes
  - Action 1.7.1: Install lightning rods on all critical facilities*
    - Timeframe: As needed
    - Funding: local, federal
    - Staff: Public Safety/Public Works
    - Hazard Event Mitigated: Lightning
  - Action 1.7.2: Install and maintain surge protection on all critical electronic equipment*
    - Timeframe: As needed
    - Funding: local, federal
    - Staff: All Parish Departments and Public Safety
    - Hazard Event Mitigated: Lightning

▪ **Goal 2: Enhance public awareness and understanding of disaster preparedness**

- **Objective 2.1:** Increase public awareness of hazard areas and educate the public on mitigation through existing channels and organizations and their memberships,
- **All Actions in this section will be approached as follows:**
  - Timeframe: 1-5 years
  - Funding: BRIC, Local and State
  - Staff: Planning and Zoning in coordination w/ TOHSEP, TSD, IT, etc.
  - Hazard Event Mitigated: All Hazards with a focus on Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion/ Tornado/Lightning.

*Action 2.1.1: Continue to advertise public meetings during the hazard mitigation planning process and throughout the year*

*Action 2.1.2: TOHSEP will continue to attend public gatherings, provide yearly materials for preparedness, and updates to the registration system for people needing evacuation or other services in preparation for an event.*

*Action 2.1.3: Continue web and email postings of mitigation programs available to reduce risks.*

*Action 2.1.4: Develop or identify and place pamphlets in the libraries and the Parish Robert “Bobby” Bergeron Government Tower regarding the risk of identified hazards.*

*Action 2.1.5 Increase social media to increase penetration of messaging*

*Action 2.1.6 Increase education regarding Law and Ordinance and Flood Insurance Claims to assist in elevation or other code compliance.*

*Action 2.1.7 Increase transparency on the website and links to useful material.*

*Action 2.1.8 Provide age appropriate materials for schools to support physical and mental health through knowledge of natural hazard preparation and recovery.*

*Action 2.1.9 Educate communities currently residing in at risk areas on the six (6) evacuation plans, access to shelter and transportation assistance as needed.*

*Action 2.1.10 Promote increased participation in the NFIP and continued participation in the Community Ratings System.*

*Action 2.1.11: Better promote the Multijurisdictional Program for Public Information to educate population on risk reduction strategies, their responsibilities, and the Parish’s responsibility for enforcement*

*Action 2.1.12 Gather and present information on subsidence and climate change as models mature and understanding improves.*

*Action 2.2.13 Increase understanding of public, real estate, banking and mortgage stakeholders regarding the value of flood and wind safety building alternatives.*

### **Goal 3: Reduce repetitive flood losses in the parish**

- **Objective 3.1.:** Eliminate threat of flood damage to structures in Terrebonne Parish including storm surge and levee failure

*Action 3.1.1: Continue to upgrade current drainage infrastructure (see Attachment c3-1 for locations)*

- Timeframe: 1-5 years
- Funding: HMA, BRIC, Local, State
- Staff: Public Works, Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion

*Action 3.1.2:*

*Action 3.1.3: Elevate or acquire all RL and SRL structures in Terrebonne Parish (see Attachment c2-25 on page 111)*

- Timeframe: 1-10 years, as funding permits
- Funding: HMA, FMA, PDM
- Staff: Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

*Action 3.1.4: Develop new and more accurate models to project the impact of various activities.*

Timeframe: 1-10 years, as funding permits

- Funding: CDBG, FMA, PDM, BRIC, Watershed Initiative
- Staff: Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

*Action 3.1.5: Elevate equipment that is vulnerable to flood damage (see Attachment c3-1 for locations)*

- Timeframe: 1-5 years, as funding permits
- Funding: HMA, Local, State
- Staff: Public Works
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

*Action 3.1.6: Flood proof public buildings vulnerable to flood damage that cannot be relocated if cost effective*

- Timeframe: 1-5 years, as funding permits
- Funding: HMGP
- Staff: Public Works, Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

***Action 3.1.7:** Construct Morganza to the Gulf Hurricane Protection Levee which would protect both new and current developments*

- Timeframe: 1-10 years, as funding permits
- Funding: local, regional, and federal
- Staff: Public Works, Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

***Action 3.1.8:** Collaborate with communities to design, evaluate, and implement Relocation Strategies for communities located outside the levee systems as needed*

- Timeframe: 1-10 years, as funding permits
- Funding: local, regional, and federal
- Staff: Planning and Zoning, Public Safety
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

***Action 3.1.9:** Ensure that current and future building elevations take the needs of those individuals with access and functional needs into account. This includes the incorporation of lifts.*

- Timeframe: 1-10 years, as funding permits
- Funding: local, regional, and federal
- Staff: Public Works, Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

***Action 3.1.10:** Assess ability of current efforts to protect the Island Road from surge and tidal impacts for sufficiency. This might include engineered solutions to decrease wave impacts and/or erosion control mechanisms along the edges of the road.*

- Timeframe: 1-10 years, as funding permits
- Funding: local, regional, and federal
- Staff: Public Works, Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

▪ **Goal 4: Facilitate sound development in the parish to reduce or eliminate potential impacts of hazards**

- **Objective 4.1:** Promote and permit commercial and industrial development, including public critical facilities, outside of hazard areas to limit business interruption, property damage, and impairment to critical facilities in strict accordance with the parish zoning, flood management, and other applicable state and federal regulations.

***Action 4.1.1:** Enforce building codes to ensure that future development does not increase hazard losses.*

- Timeframe: Ongoing
- Funding: No additional funds required
- Staff: Planning and Zoning

- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion/ Tornado

***Action 4.1.2:** Guide future residential development away from hazard areas using zoning regulations or tax options while maintaining other parish priorities such as economic development and the quality of life*

- Timeframe: Ongoing
- Funding: Local/BRIC for outreach or modeling
- Staff: Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion/ Tornado.

***Action 4.1.3:** Provide safe locations for files, records, and computer equipment*

- Timeframe: Ongoing
- Funding: CDBG/HMA/BRIC
- Staff: Finance Department, Information Technologies Division
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/ Tornado

***Action 4.1.4:** Examine current zoning regulations and determine what new regulations could be passed to reduce the effects of hazards on new buildings and infrastructure*

- Timeframe: Ongoing
- Funding: Not additional funds required
- Staff: Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion/ Tornado

- **Objective 4.2:** Promote preservation and/or conservation of flood prone areas for parish parks, recreation areas, and general flood plain management

***Action 4.2.1:** Participate in existing programs at the state and federal levels oriented to environmental enhancement and conservation*

- Timeframe: Ongoing
- Funding: local, regional, and federal
- Staff: Planning and Zoning, Recreation, Parks, & Grounds, Coastal Restoration and Preservation
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion/ Tornado

***Action 4.2.2:** Continue to participate in the NFIP (including Houma under the Consolidated Government) and incorporate Community Ratings System principles as appropriate.*

- Timeframe: Ongoing
- Funding: Local, BRIC
- Staff: Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

***Action 4.2.3:** Establish a public outreach campaign to ensure all homeowners in floodplains are aware of the various types of coverage options under the NFIP*



- Timeframe: Ongoing
- Funding: HMA, state
- Staff: Planning and Zoning, Housing and Human Services
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure

*Action 4.2.4: Work with landowners in flood prone areas, particularly outside of the levee systems, and other stakeholders to identify flood mitigation and climate adaptation measures to reduce flood risk.*

- Timeframe: Ongoing
- Funding: HMA, state
- Staff: Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion

*Action 4.2.5: Work with communities currently residing in flood prone areas, particularly outside of the levee systems, on the identification of flood mitigation and climate adaptation measures to reduce flood risk.*

- Timeframe: Ongoing
- Funding: HMA, state, CDBG, local
- Staff: Planning and Zoning
- Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Coastal Erosion

*Action 4.2.5: Research partners and low tech or low cost alternatives for marsh, coastal or shoreline protection or restoration programs to reduce harm from all hazards.*

- **Goal 5: Assess the feasibility of setting a uniform standard of protection incorporated into all drainage, development and mitigation activities.**
- **All actions under this goal will be approached as follows:**
  - Timeframe: 1-5 years
  - Funding: HMA, state, Watershed Initiative, BRIC
  - Staff: Planning and Zoning, Administration, Public Works
  - Hazard Event Mitigated: Hurricane/Flooding/Levee Failure/Saltwater Intrusion/ Subsidence

*Action 5.1 Review the level of risk currently acceptable across all relevant plans or codes and compare to flood ordinance requirements.*

*Action 5.2 Develop a benefit cost assessment for the economic impact of higher standards including attracting high value businesses and insurance savings.*

*Action 5.3 Approach regional partners to coordinate stormwater management plan and uniform standard of protection for all drainage, development, and mitigation activities.*