

**Coastal Bend Priority Mitigation Actions and/or Studies – June 28, 2019**

In reviewing each county’s hazard mitigation plan, the below themes were among the top concerns for communities. These align well with the “Coastal Bend Identified Issue Areas” that were discussed at a regional meeting at the COG on May 14, 2019.

- 1) Public Awareness and Education Campaign
- 2) Infrastructure hardening/protection
- 3) Water drainage- master drainage plan
- 4) Managing repetitive loss structures in low-capacity areas
- 5) Backup infrastructure such as generators
- 6) Disaster resistant building codes
- 7) Adopt ASFPM’s “No Adverse Impact” policy to mitigate local flooding
- 8) Wastewater system updates

COASTAL BEND ISSUE AREAS	GLO MITIGATION EXAMPLES FROM SURVEY	SPECIFIC NEED (S=Study; A=Action)
Economy diversification (tourism, manufacturing, entrepreneurship)	None provided in survey	<p>A: <b>Coordinate educational and training activities</b> on business and community resilience</p> <p>A: <b>Create a regional Multi-Use Trails Network</b> for the purposes of recreation, enhanced flood resilience and in support of local business.</p> <p>S: <b>Regional study focusing on economic need and feasibility</b> to diversify a job market centered around tourism, entrepreneurship and oil &amp; gas. Case study from other states: FL, AL-MS, LA.</p> <p>S: <b>Identify infrastructure needs and solutions</b> to support economic recovery/growth</p> <p>S: <b>Build Resilience Index</b> to assess community resilience and key natural resource assets, particularly in relation to supporting ecotourism growth in the Coastal Bend. The index will provide a resilience score and will identify priority actions.</p>
Regional mitigation and disaster recovery planning, including implementation - Need capacity (labor and expertise)	--Implement or enhance communication infrastructure, such as radio and cell towers or tree maintenance where power and phone lines exist.	<p>A: <b>Form a Regional Resilience Center</b>, to become self-sustaining, which can supplement much needed capacity in the Coastal Bend to build resilience by providing experts for strategic resilience assessment locally and across counties, funding strategies, grants applications and administration, GIS, and training for local officials. The Collaborative will implement agreed upon high priority actions, and feed real-time data for analysis.</p> <p>A: <b>Draft and implement a Recovery &amp; Mitigation Roadmap</b> to integrate hazards mitigation plans and resilience indices into redevelopment at the local and county scale, while assigning responsibilities for long-term recovery and mitigation.</p> <p>S: <b>Risk identification, analysis and prioritization</b> to include vulnerability assessments, including for big ticket items that may have been left out initially due to cost.</p>

<p>Regional to local planning</p> <ul style="list-style-type: none"> <li>- Buyout, acquisition, reconstruction in high risk areas</li> <li>- Enforcement</li> <li>- Innovative funding mechanism to incentivize resilient building</li> </ul>	<ul style="list-style-type: none"> <li>--Development restrictions in flood zones, capital planning for mitigation</li> <li>-- Prevent development with buyouts/acquisitions</li> <li>--New culverts, storm-proofing windows, elevating buildings, etc.</li> <li>--Revising building codes</li> <li>--Reconstruction of noncompliant structures</li> <li>--Updating ordinances</li> </ul>	<p>A: <b>Update subdivision and zoning ordinances</b>, including ordinances that prohibit growth in high risk areas as well as disaster resistant building codes, and freeboard requirements based on planning studies, updated flood risk mapping and assessment of vulnerable areas.</p> <p>A: <b>Review and update zoning regulations</b> to reduce population density in areas vulnerable to hazards, including by preserving open space for flood mitigation.</p> <p>S: <b>Conduct feasibility study of buying out and managing repetitive loss structures.</b></p> <p>S: <b>Geohazards Maps for Resilient Development</b> to identify especially vulnerable as well as strong assets for redevelopment. Supplement analytical work with GIS analysis of geohazards.</p>
<p>Affordable housing</p>	<p>None provided in survey <i>(Some of this is identified in City of Corpus Christi focus group and in affordable housing subcommittee of CEDs)</i></p>	<p>A: <b>Address the affordability gap in local and regional housing stock</b> through plans to increase land use, supply of affordable housing options; identify and incorporate incentives to develop storm-resilient and sustainable housing; assess and increase resources supporting housing affordable to workforce and low-income populations.</p> <p>A: <b>Identify and incorporate incentives</b> to develop storm-resilient and sustainable housing (including affordability)</p> <p>S: <b>Conduct analysis of affordable housing properties and planned development of rental options</b> in the Coastal Bend, by analyzing potential for and risk to current locations, potential land acquisition, building development, and financial investments.</p>
<p>Infrastructure</p>	<ul style="list-style-type: none"> <li>--Continually refine evacuation plans and develop re-entry planning</li> <li>--Fortify critical facilities (e.g. transportation, hospitals, fire stations, etc.)</li> <li>--Maintenance of vulnerable utilities</li> <li>--Replace inadequate bridges and causeways</li> <li>--Construct hazard shelter</li> </ul>	<p>A: <b>Advance Property Protection Policies</b> to establish best practices in policies to reduce vulnerabilities to county owned and public-funded properties.</p> <p>S: <b>Develop damage assessment best practices</b> that could lead to Asset Management System based policies- i.e. Communication utilities across the region went down for over a week slowing down response and recovery. How can a community do efficient damage assessment and recover more quickly?</p> <p>S: <b>Investigate impacts of dam failure</b> on the county population for Lake Corpus Christi and Choke Canyon Reservoir (i.e., Dam Breach Study)</p> <p>S: <b>Affordable housing</b>, especially for workforce population to be considered as part of community infrastructure</p>
<p>Flooding, including rural/septic; Drainage assessment &amp;</p>	<ul style="list-style-type: none"> <li>--Enhance the function of natural flood-mitigation features (e.g. streams, wetlands, etc.)</li> </ul>	<p>A: <b>Shoreline Erosion and Sea Level Rise Plan</b> to guide future development.</p> <p>S: <b>Drainage master study</b> that combines surge and precipitation driven flood to assess the unique flat environment on the coast, including updated topo/bathy/land cover information for planning use.</p>

<p>mapping; hydrological studies, including precipitation</p>	<p>--Flood-proofing and/or retrofits  --Levees, flood walls, or related infrastructure  --Local channel conveyance improvements  --Regional or local detention and/or retention basins  --Roadway bridges, culverts, and other forms of stormwater conveyance  --Local drainage improvements</p>	<p>S: <b>Erosion Control Study</b> using a mix of green and grey infrastructure (could be a study on best possible practices or an action item).  S: <b>Digital Elevation Map for the Coastal Bend Region</b>- Zoning and emergency plans are guided by models but models are only as good as their inputs. Having an accurate DEM is key to having good inundation predictions and provide accurate guidance for residents and businesses. There is a need in this region to assess existing data on a homogeneous standard, fill gaps, and update outdated information.  S: <b>Coastal hazards analysis and mapping</b>- Model and map the vulnerability of built and natural environments to coastal flooding, storm surge, sea level rise, erosion, and their combined effects and provide this information in a visual, easy to understand format such as maps, and different escalating planning scenarios, that are useable by the public, communities, and planners. Project would incorporate and expand upon modeled flood risks, using them to develop quantitative as well as qualitative measures of resilience in terms of the loss of quality of a particular system function (electric power, transportation) or resilience metric (# of homes impacted by flooding).  S: <b>Comprehensive study of flood risk and flood reduction alternatives</b>, with the assistance of the USACE, to implement feasible alternatives for flood reduction, including surface and subsurface conveyance pump systems.  S: <b>Drinking water vulnerability and assessment resilience study</b> to asses small public water systems impacted by storms (with the purpose to lead to a strategy)</p>
<p>Public awareness &amp; education (e.g., on insurance, family preparedness)</p>	<p>--Hazard safety education programs (emergency-ready kits, location of emergency shelters, emergency specific PSA's)  --Promoting homeowner flood insurance  --Improve community awareness of All-hazards  --Disaster warning system</p>	<p>A: <b>Public awareness campaign</b> to include an early warning alert system  A: <b>Education about all high-risk events</b> for local residents – hurricane, flood, industrial  A: <b>Create inclusive risk communications plans</b> to develop and deliver the right message to local community interests; explain risks, identify options for reducing risk; engage individual citizens, trusted sources and non-profit organizations to develop messages and products, using multiple, redundant and accessible ways to communicate.</p>
<p>Match dollars, esp. for rural areas, and LMI Consideration</p>	<p>None provided in survey</p>	<p>A: <b>Advocate waiving or further relaxing the matching requirements</b> of federal grants for recovery projects in communities directly hit by a disaster.  A: <b>Advocate lowering LMI requirements</b> in communities that have skewed data</p>