CHAPTER 8
ADMINISTRATIVE, REGULATORY, AND LEGISLATIVE RECOMMENDATIONS

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Texas Water Development Board

DRAFT CHAPTER 8 2023 REGIONAL FLOOD PLAN REGION 6 SAN JACINTO

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PREPARED FOR THE **SAN JACINTO REGIONAL FLOOD PLANNING GROUP**

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Task 8. Administration, Regulatory, and Legislative Recommendations

As part of the process of developing this plan, the San Jacinto RFPG is directed to develop and include recommendations for legislative, regulatory, and administrative improvements that they consider necessary to facilitate floodplain management and flood mitigation planning and implementation. The TWDB asks for:

- Legislative recommendations that they consider necessary to facilitate floodplain management and flood mitigation planning and implementation;
- Other regulatory or administrative recommendations that they consider necessary to facilitate floodplain management and flood mitigation planning and implementation;
- Any other recommendations that the RFPG believes are needed and desirable to achieve its regional flood mitigation and floodplain management goals; and
- Recommendations regarding potential, new revenue-raising opportunities, including potential new municipal drainage utilities or regional flood authorities, that could fund the development, operation, and maintenance of floodplain management or flood mitigation activities in the region.

These recommendations may address items that benefit and/or can be implemented at the local, regional, or state level. Recommendations, in general, are anticipated to be aimed at supporting flood risk reduction and supporting implementation of the regional flood plans, including exploring innovative ways of funding flood risk reduction activities. Recommendations include suggested changes to the flood planning process for the TWDB to consider when implementing the next cycle of regional and state flood planning.

Recommendations in this chapter were developed with input from various sources including RFPG meeting discussions and direct RFPG Technical Committee input. Recommendations were based on observations and lessons learned while developing this plan. These recommendations are categorized into three (3) major classifications based on the path that would be required to enact them: legislative, regulatory and administrative, and flood planning recommendations. It is recognized that legislative recommendations are the most difficult to enact but at the same time they are potentially the most impactful actions to flood risk reduction. The next classification, regulatory and administrative recommendations, can be enacted typically by state level agencies such as TxDOT and are considered to take somewhat less effort and time to enact while still providing very impactful improvements to flood risk policy across the state.

Recommendations regarding the last category, the flood planning process itself, were developed after review and of proposed project scoring guidelines and data requirements detailed in Exhibit C – Technical Guidelines for Regional Flood Planning (April 2021). The proposed project scoring system will be used by the TWDB to rank FMPs. Many of the recommendations in this category are focused on developing scoring criteria that are equitable to all community types and sizes. Scoring that automatically disadvantages a community due to their size or population, for example, should not be used.

Task 8.A. Legislative Recommendations

Recommendations in this section contain measures that would require action by the Texas Legislature. These actions involve updates to existing laws, authorities granted to counties and other entities, and new or additional funding appropriations. Table 1 below offers legislative recommendations and discussion that the RFPG considers necessary to further floodplain management and flood mitigation planning and implementation.

Table 1: Legislative Recommendations

	Recommendation	Discussion
1	Provide recurring biennial appropriations to the Flood Infrastructure Fund (FIF) for study, strategy, and project implementation.	Passed by the Legislature and approved by Texas voters through a constitutional amendment, the FIF program provides financial assistance in the form of loans and grants for flood control, flood mitigation, and drainage projects. The program provided an infusion of funding when passed into law in 2019 but additional funds were not added in the subsequent legislative session. Setting a regular appropriation of funds is necessary for helping communities to better plan for future applications and to encourage them to develop projects and mitigation measures for consideration.
2	Provide state incentives for establishment of dedicated drainage funding.	State law provides municipalities with the authority to establish local drainage utilities. Having a stable and predictable source of funding is conducive to both long-range planning and the timely development and implementation of flood risk reduction projects. Absent the creation of a drainage utility, local governments typically rely on federal partners to fund floodplain management and regulatory programs or utilize general tax revenues and/or municipal bonds secured and serviced with local tax revenues. The state should incentivize local communities to invest and plan for participation in, and funding of, dedicated drainage projects rather than rely solely on federal funding.
3	Provide counties with legislative authority to establish drainage utilities and assess drainage fees.	State law provides municipalities in Texas the authority to implement governing ordinances within their jurisdictions including the establishment of drainage utilities or the assessment of drainage fees. This same authority is not currently granted to unincorporated areas of counties. These funds create a direct and reliable source of revenue to assist in the implementation and long-term maintenance and repair of drainage and flood risk reduction projects. Without the establishment of a utility or fee, governing entities must typically rely federal partner funding, tapping into general funds, and/or issuing bonds. Any new drainage authority granted to unincorporated counties should not conflict with Municipal Utility Districts (MUDs) authority. The goals of the State Flood Plan would be fostered if counties with governance over unincorporated areas were granted the authority to establish drainage utilities or drainage fees.
4	Enact legislation updating the state building code to, at minimum, the 2015 or 2018 versions of International Building Code (IBC) and International Residential Code as State building standards. Updates should occur biennially during the regulator legislative session to comply with the current IBC and any future updates.	Without a mandatory state building code, local entities in Texas do not score competitively for some federal funding programs, such as FEMA's Building Resilient Infrastructure and Communities (BRIC) Grant. Updating building codes are also one of the most cost efficient and effective long-term mitigation measures that can be implemented.

Task 8.B. Regulatory & Administrative Recommendations

Some recommendations from the RFPG can be implemented under existing legislative action and can be enacted via existing authorities granted to state agencies. Table 2 below offers recommendations and discussion that the RFPG considers necessary to further floodplain management and flood mitigation planning and implementation that require regulatory and/or administrative action at the state level.

Table 2: Regulatory and Administrative Recommendations

	Recommendation	Discussion
5	The Texas Department of Transportation (TxDOT) should employ roadway design criteria to require all new and reconstructed state roadways to be designed and constructed, to the extent practicable, at elevations at or above the 1.0% annual chance water surface elevation if determined with Atlas-14 rainfall. The 0.2% elevation should be used if other rainfall source used to determine elevations. TxDOT should also consider future conditions, such as urbanization and climate variability, in its roadway design criteria for drainage and flood risk reduction.	TxDOT is not a participant in the NFIP and does not in all cases design roadways in a manner consistent with minimum NFIP requirements. It is recognized that, by their nature, it is often not feasible or practicable to design and construct roadways to provide a level of flood protection equivalent to or greater than the 1% annual chance (100-year) storm event. However, as a matter of policy and practice, TxDOT should strive to meet this standard, especially for critical infrastructure such as evacuation and emergency routes. By not acting on this recommendation, newly built transportation infrastructure could be at risk of extreme event flooding.
6	Recommend a statewide building standard of a minimum floor elevation shall have a finished floor elevation established at or waterproofed to the FEMA effective 0.2% annual chance flood elevation as shown on effective Flood Insurance Studies except in areas designated as coastal flood zones or at the 1% annual chance flood elevation where Atlas 14 has been used.	The TWDB should encourage and incentivize higher building standards than those minimally required by federal regulations. This is especially true on minimum BFEs where recent events of historic flooding and updated rainfall totals by the National Oceanic and Atmospheric Administration Atlas 14 have revealed how much BFEs can change over time. New studies occurring across the state now expect to see increases of BFEs once the new Atlas 14 data is incorporated into models and maps. Jurisdictions that have required a freeboard over the current BFE have mitigated the risk of these increasing BFEs.
7	Clarify the process and investment required to take Base Level Engineering (BLE) data to regulatory BLE information on a FIRM panel and alternatively, detailed study on a FIRM panel.	BLE is an efficient modeling and mapping approach that aims to provide technically credible flood hazard data at various geographic scales such as community, county, watershed, and/or state level. Currently the state and FEMA are heavily investing in BLE across the state and there is a need to clearly communicate to local jurisdictions how to make this data regulatory or, if desired, improve upon it to make it eligible for incorporation into a detailed study on a FIRM. The steps for both paths remain unclear to many local jurisdictions and this large investment could be further leveraged.
8	Establish and fund a levee safety program similar to the TCEQ dam safety program.	The TCEQ has a program that monitors and regulates certain dams across the state. The program periodically inspects dams that fall under this program and pose a high or significant hazard and makes recommendations and reports to dam owners to help them maintain safe facilities. Levees on the other hand do not have a similar safety program despite posing a significant risk during flooding events.

	Recommendation	Discussion
9	Develop model floodplain ordinances for General Law Cities (e.g., building codes, subdivision regulations).	General Law cities are smaller cities, generally under 5,000 people, which represent a large number of the communities throughout Texas. They have limited powers to regulate based on what state statutes direct or permit them to do. Typical ordinance language used by larger Home Rule Cities may not always be allowable for use in General Law cities. Model ordinances should be developed by the TWDB that consider the specific limitations of General Law cities.
10	Partner with Texas Floodplain Managers Association (TFMA) to promote public education and outreach about flood awareness and flood safety and provide outreach materials to communities. Partnership with Texas Association of Counties to include dedicated outreach to Floodplain Administrators without a technical flooding background (e.g., County Judges).	The TWDB should partner with floodplain management organizations such as TFMA to develop and promote public flood risk education and outreach materials. Public outreach that provides opportunities for flood risk education and awareness helps to support public safety and flood mitigation measures in a variety of ways. A well informed public can make better informed choices in their personal lives on issues that involve flood risk and also more likely to support public policies and mitigation measures to reduce that risk. These outreach materials and education can reach an even wider audience by partnering with organizations like Texas Association of Counties that have broader reaches to smaller communities and those that may not have dedicated Floodplain Administrators with technical backgrounds.
11	Provide support for ongoing education/training regarding floodplain management in the form of no or low cost online resources including training modules, webinars, and print resources. Target training for non-technical Floodplain Administrators (e.g., County Judges as FPA).	Floodplain Administrators, especially in smaller Texas communities, are often responsible for a much wider field of responsibilities than just floodplain management as often is the case with County Judges. Also these individuals may not have a technical background or be well versed in floodplain management practices. Providing support in the form of no or low cost educational training including webinars and print resources focused non-technical audiences would help to make effective floodplain management more prevalent across the state.
12	Develop state incentives for local governments to participate in the FEMA National Flood Insurance Program (NFIP) and Community Rating System (CRS) program.	The NFIP is a vital tool that works with communities required to adopt and enforce floodplain management regulations that help mitigate flooding effects. The CRS is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the NFIP. These programs are essential to achieving the goals of the State Flood Plan and State led incentives that encourage and assist communities in participation is recommended.
13	Develop a statewide database and tracking system to document flood-related fatalities that is publicly available. This could be an addition to the Flood Plan Data Hub to capture existing data from TxDOT, NOAA, or others.	Fatalities have historically occurred during extreme flood events throughout the state's and region's history. To limit these fatalities, a statewide database and tracking system with appropriate privacy restrictions could serve to aid in future project planning and regulatory decision making. Additionally, it could help with future outreach and education efforts that serve to break the cycle of actions during storm events that frequently lead to these outcomes. An example is the importance of not attempting to drive through flood waters. This effort could be an addition to the Flood Plan Data Hub to capture existing data from TxDOT, NOAA, or others.
14	Assist via funding smaller jurisdictions in preparing grant applications or make the application process easier. Provide training for Councils of Governments (COGs) to assist with funding process.	Developing applications for project funding can be a difficult task, especially for smaller jurisdictions with limited experience and access to funding to obtain expert assistance. Simplifying applications and making funding available specifically for application development would serve to make the process more accessible across the state and

	Recommendation	Discussion
		help close knowledge gaps. Additionally, developing resources at the COG level that would provide training to smaller communities regarding how to fully develop funding applications would provide further benefits and help to ensure opportunity to pursue funding to all.
15	Develop a model-based future conditions flood hazard data layer using BLE data and provide it for use by RFPGs and the technical consulting teams during the next flood planning cycle.	Guidance for the development of future conditions flood hazard data should be improved and standardized across flood planning regions. The state's and FEMA's investment in Base Level Engineering (BLE) data throughout the state along with existing FEMA RiskMAP data provide an opportunity for standard guidance to be developed for future condition flood hazard data that would be applicable eventually in most parts of the state.
16	Reduce or eliminate barriers that prevent jurisdictions from forming effective partnerships to provide regional flood mitigation solutions.	Flood risk does not recognize jurisdictional boundaries, yet many requirements of various flood mitigation programs have requirements that can often prevent multiple jurisdictions from working together. For example, if a primary sponsor meets all administrative requirements but additional jurisdictions do not this could jeopardize state funding eligibility. The process should still allow regional flooding solutions in this situation to remain eligible for state funding either through a waiver process or an update to current policy. Flood risk at level of focus of Regional Flood Planning rarely is inclusive to a single jurisdiction, therefore interjurisdictional collaboration should be encouraged, and policies updated to better allow.
17	Incentivize voluntary buyout programs, turning repetitively flooded properties/neighborhoods into green space, parkland, or any other flood risk mitigation measure as an alternative to large-scale construction projects.	Buyout programs have the distinction of being one of the only flood mitigation programs that leave no residual risk for the households they serve. Buyouts can also serve adjacent populations further by reclaiming environmentally beneficial floodplain land or providing a location for other community needs such as parkland. Many communities however are not supportive of buyouts, typically due to loss of tax revenue and other unintended consequences. Incentives should be developed to encourage this type of permanent flood mitigation and offset some of its consequences, especially in areas where structural mitigation projects cannot meaningfully reduce flood risk.
18	Provide training to state agencies, local governments, engineers, planners, and members of RFPGs in the use of natural floodplain preservation/conservation.	Natural floodplains provide flood risk reduction benefits by slowing runoff and storing flood water. They also provide other benefits of considerable economic, social, and environmental value that are often overlooked when local land-use decisions are made. Training and education opportunities would help policy makers to better understand the benefits of natural floodplains and conservation when making decisions regarding land use or mitigation projects.

Task 8.C. Flood Planning Recommendations

This section contains recommendations to the flood planning process for the TWDB to consider when implementing the next cycle of regional and state flood planning. These recommended actions were developed with input from the SJRFP and the Technical Team's analysis of proposed scoring criteria. Table 3 below contains recommendations to the Flood Planning process.

Table 3: Flood Planning Recommendations

	Recommendation	Discussion
19	Regional flood plans are required to provide an indication of whether a flood control solution meets an emergency need. Guidance should be provided on what constitutes an emergency need.	Regional flood plans are required to provide an indication of whether a flood control solution meets an emergency need however no further guidance or definitions are provided by the TWDB. Uncertainty remains on if emergency need may refer to infrastructure facing imminent failure and/or flood risk that poses hazards to emergency services. How individual Regional Flood Planning Groups determines if a project meets an emergency need is likely to vary greatly. To encourage consistency across all regional flood plans, further guidance, definition, and/or criteria should be provided on what constitutes an emergency need.
20	Scoring criteria and methodology for projects that benefit agricultural activities should be updated to allow for these types of projects to compete with urban focused projects.	The scoring or award of funding for projects that benefit agricultural activities based on a traditional benefit-cost ratio will not feasibly allow for these projects to compete against more urban projects with higher value infrastructure or damage. Protection of agricultural land use can also help to maintain their use as beneficial floodplains. Guidance should be developed and provided on a TWDB-preferred methodology to account for benefits to agricultural areas and activities and include consideration of agricultural benefits when ranking projects in the State Flood Plan.
21	Utilize project scoring that is equitable to project sponsors regardless of their size or population.	Scoring and awarding of projects should not be affected by a community's overall population or size. Certain proposed scoring guidelines include metrics that would automatically give larger communities the lowest score possible since it would divide the benefits by total population. Scoring metrics should not be included that automatically disadvantage project sponsors because they are large in area or population.
22	Utilize project scoring for nature-based solutions that give them a competitive chance compared to non nature-based projects.	The formula for scoring of nature-based solutions should not be based on nature-base project costs as a percentage of overall costs as nature-based projects are almost always more cost efficient than large, gray infrastructure projects. This disparity will also put them at a disadvantage. An alternative suggestion is to determine the overall value of the project and the way the project functions in terms of the nature-based aspects and their relationship to the value and function of the overall project. Specific examples could be helpful in describing the scoring (for instance, preservation of an existing natural stream and wetlands would score 10; a newly constructed retention pond with natural vegetation that functions like a natural area would score slightly less; etc.). Goal is to develop stand-alone metrics for nature-based projects.

	Recommendation	Discussion
23	Expand consideration and priority for FMEs that establish initial FEMA effective floodplains.	Development of high-quality FEMA floodplain maps is a key component in a successful flood mitigation strategy. It provides many tools used to regulate flood risk and typically grants local authorities additional authorities. One key feature is the automatic establishment of Base Flood Elevations (BFEs) which, in addition to reducing future flood risk, would allow communities to better consider floodplain management practices and identify FMPs.
24	Lessen requirements for a project to be considered a FMP.	The SJRFP pulled together many excellent projects that are ready for design and construction. Almost all of these projects were missing a benefit cost analysis (BCA) due to local preference to not disadvantage lower income communities. Even though models were available and all other criteria met such as meeting a no adverse impact requirement, these projects were all designated as FMEs. Consideration should be given to well developed projects that may be lacking single items that can be fulfilled early in the design process.

Implementation of these recommendations will help to support flood risk reduction and support implementation of the regional flood plans, including providing innovative ways of funding flood risk reduction activities.