

TWDB Table 11
Flood Mitigation and Floodplain Management Goals (Draft August 15, 2025)

Goal ID	Goal	Progress Towards Achieving Goals from the Previous 2023 Cycle	Term of Goal	Target Year	Overarching Goal
13000001	Improve Safety at Low Water Crossings through Structural Improvements or Warning Systems				
13000002	Conduct an inventory of low-water crossings (LWCs), characterize risk, and rank LWCs to prioritize those with high risk. Prepare a large-scale public outreach campaign to include "Turn Around Don't Drown" signage at LWCs or roadways aimed at reducing loss of life. Identify top 30% of high-risk, LWCs and prepare recommendations for mitigation or warning systems. Prior to confirming high risk LWCs, hold a regional meeting with floodplain managers to confirm LWCs with high risk of injury or death during flood, which could include pedestrian bridges and bikepaths as critical for the City of Kingsville.	The NRA submitted an FIF application to the TWDB on July 2, 2025 to conduct an inventory of LWCs in the Nueces Basin, characterize flood risk at each LWC, and prioritize developing Flood Mitigation Projects (FMPs) for LWCs with high risk. Potential benefits realized from this project will be reduced risk of flooding at LWCs and improved access to critical infrastructure during flood events.	Short Term (10 year)	2038	Protect against the loss of life
13000003	Identify and evaluate 80% of high-risk LWC identified in the Nueces Basin.		Long Term (30 year)	2058	Protect against the loss of life
13000004	Rehabilitation, Removal or Replacement of Deficient High Hazard Dams as Identified by TCEQ Dam Safety Regulation Program				
13000005	Conduct a comprehensive study to identify all deficient high-hazard dams in the 31-county region. Define need and prepare a plan that identifies proactive steps towards removal and/or rehabilitation of high-hazard dams, including compiling a list of funding programs and qualifications.	The NRA submitted an FIF application to the TWDB on July 2, 2025 to conduct a high hazard dam identification and risk assessment project in the Nueces Basin. This project involves assessment of risks at up to 34 high and potentially significant hazard state-regulated dams within the Nueces River Basin. Failure or overtopping of these structures could lead to flood risk in downstream areas and potentially place water supplies (in both upstream and downstream areas) at risk in select locations. Flood risk associated with these structures will be estimated by reviewing existing breach and/or capacity analyses or performing rapid assessments of the breach inundation area and/or spillway capacity. The risk of structural failure will be considered by performing screening level risk assessments using industry standards similar to those applied by NRCS. The project , characterize flood risk at each LWC, and prioritize developing Flood Mitigation Projects (FMPs) for LWCs with high risk. Potential benefits realized from this project will be reduced risk of flooding at LWCs and improved access to critical infrastructure during flood events.	Short Term (10 year)	2038	Protect against the loss of life
13000006	Address 50% of the deficient high-hazard dams in the Nueces Basin, which may include removal or rehabilitation.		Long Term (30 year)	2058	Protect against the loss of life

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13000007	Improve regional coordination , data collection/sharing of flood events and impacts, and implement flood warning systems				
13000008	Develop (or expand) a successful flood management program on a regional scale to cover 30% of the high hazard risk areas identified in the 2023 plan. Identify flash flood risk areas, and areas with higher risk of life/catastrophic loss during flooding including campgrounds and high tourism areas. Hold annual workgroup sessions with county/city stakeholders with common flood issues to develop Flood-focused Emergency Action Plans and develop local and regional-scale public outreach program to include "Turn Around Don't Drown" campaigns aimed at reducing loss of life . Consider National Incident Management Protocol (Incident Command Center) as a FEMA resource for scalable responses for multi-jurisdictional floods.	<p>The NRA submitted an FIF application to the TWDB on July 2, 2025 to develop a framework for implementing flood early warning systems (FEWS) for the Nueces Basin. The study evaluates the feasibility of implementing a flood early warning system (FEWS) for the Nueces River Basin (NRB) with Phase 1 including implementing a FEWS based on current infrastructure and monitoring systems already in place and Phase 2 with forecast-based systems and/or deployment of additional gages/models. Implementing a flood warning system in the basin has the potential to reduce the risk of future loss of life by providing flood hazard prediction information in advance of the impacts of a storm event.</p> <p>All 5 NRA FIF projects applied for on July 2, 2025 are designed with region and county outreach milestones to improve regional coordination and data collection/sharing.</p>	Short Term (10 year)	2038	Protect against the loss of life
13000009	Develop (or expand) a successful flood management program on a regional-scale to cover 95% of the high hazard risk areas identified in the 2023 plan and future flood planning cycles.		Long Term (30 year)	2058	Protect against the loss of life

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13000010	Perform flood mapping evaluations and update floodplain maps and flood hazard data.				
13000011	<p>Improve Base Level Engineering (BLE) maps to Class C throughout the basin, with targeted Class D and E models in high-risk areas (See Note below). Identify structures and buildings in high flood risk NFHL-Detailed Study Areas with elevations less than 1 foot above base flood elevation (BFE). Distinguish flash flood areas differently than traditional floodplain areas, due to abrupt and swift response to precipitation events which causes an elevated risk to life. Identify other non-structure related high risk areas, such as campground areas and flash flood-prone areas frequented by tourists.</p> <p>Note: FEMA modeling classifications referenced throughout this project are outlined in Guidance for Flood Risk Analysis and Mapping General Hydraulics Considerations (November 2024) and are summarized as follows:</p> <p>Class C Modeling: This represents non-regulatory, planning-level flood analyses. It involves medium resolution 2D grids with and simplified structure representation. It is suitable for watershed wide floodplain delineation in rural or low-density suburban areas</p> <p>Class D/E Modeling: Class D/E modeling represent higher-detail hydraulic modeling appropriate for regulatory studies and areas with development. These models include fine-resolution 2D meshes, detailed structure representation using field data or as-built plans. Class D/E modeling enables detailed evaluation of infrastructure impacts, mitigation alternatives, and urban flood risk.</p>	<p>In 2024, the TWDB completed 2D- BLE mapping for the West Nueces (HUC 12110102), Upper Frio (HUC 12110106), Turkey Creek (HUC 12110104), Upper Nueces (HUC 12110103), and Middle Nueces (HUC 12110105) representing nearly 50% of the basin that did not have accurate mapping. https://www.arcgis.com/apps/dashboards/45d3284db7e64694bdcece58c6de39fc Additionally, in 2024, the USACE completed InFRM HEC-HMS modeling for the Nueces Basin that included hydrology update for the entire Nueces Basin and detailed hydraulic modeling of two areas (Turkey Creek and Nueces near Asherton).</p> <p>The NRA submitted an FIF application to the TWDB on July 2, 2025 to conduct floodplain map updates through the Nueces Basin. The 2023 Plan identified at least 8 counties in Region 13 with inaccurate or old maps prior to 2010. At least 8 other counties have areas with mapping based on old rainfall data that differs from new rainfall data by more than 30%. The study seeks to develop enhanced hydrologic and hydraulic models, update flood inundation mapping for select events, identify areas of high flood risk, and evaluate alternatives to reduce flood risk. and utilize the InFRM HEC-HMS model to cover the extents of the basin as described in the Region-13 Flood Plan. The basin includes the 20 HUC8 watersheds and extends from the headwaters of the Nueces River to the Gulf. The project will enhance the prior BLE study for the Nueces River Basin by upgrading existing Class B models to Class C throughout the basin, with targeted Class D and E models in high-risk areas.</p>	Short Term (10 year)	2038	Property Damage
13000012	Develop accurate maps to NFHL-level accuracy for 100% of the basin. Identify structures and buildings in the NFHL-Detailed Study Areas with elevations less than 1 foot above BFE.		Long Term (30 year)	2058	Property Damage

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13000013	Reduce the number of structures within NFHL-Detailed Study Area and Existing Floodplain with 1% and 10% annual chance flood risk.				
13000014	Identify structures within the existing floodplain with 1% and 10% annual chance flood risk for 40% of the basin. Prepare a list of high-hazard buildings based on function, critical function, repetitive loss, or other community-related importance, summarize, and distribute results to affected floodplain management entities. Identify and advocate for programs to reduce structures with finished floor elevations less than 1' above BFE, with a goal of working with local stakeholders to address 5% existing structures with elevations lower than 1' above BFE and developing ordinances to prohibit new construction within 1' above BFE.	<p>The current regional flood plan includes an analysis of all the structures that are in the existing flood hazard. These structures are from the TWDB structures building footprints with some being unidentified. To show progress towards the 2033 and 2053 goals we will compare the unidentified structures between cycle 1 and cycle 2.</p> <p>From the existing project feature class that includes projects that are currently ongoing or funded, there are some FMP projects. These projects include FMPs from FIF and GLO. Tracked progress will be documented by collecting information from these various entities on the projects that are currently ongoing.</p>	Short Term (10 year)	2038	Property Damage
13000015	Identify structures within existing floodplain with 1% and 10% annual chance flood risk for 100% of the basin, including areas that have been updated with more accurate mapping. Prepare a list of high-hazard buildings based on function, critical function, repetitive loss, or other community-related importance, summarize, and distribute results to affected floodplain management entities. Working with counties and local communities, reduce the number of high-hazard structures within the 1% and 10% existing floodplain by 20%.		Long Term (30 year)	2058	Property Damage

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Goal ID	Goal	Progress Towards Achieving Goals from the Previous 2023 Cycle	Term of Goal	Target Year	Overarching Goal
13000016	Prepare minimum flood management standards , including identifying operations and maintenance best practices to maintain drainage structures including remove gravel and sediment deposition to mitigate future flooding impacts.				
13000017	Provide minimum flood standard recommendation(s) adopted by the NRPFG to floodplain administrators and community leaders, to include: Finished floor of structures are to be constructed a minimum of 1 foot above BFE 100-year or based on local ordinances, whichever is more stringent. The NRPFG strongly encourages cities and counties in the Nueces Basin to actively consider minimum 2 feet above base flood elevations, as some counties in the region have adopted . The standards are based on available data, to be updated with Atlas 14 and/or TWDB BLE data when available. Achieve 50% voluntary adoption of the RFPG minimum standards by counties/ cities. Define and recommend additional minimum flood standards for regional support towards implementation, as study results become available. Increase the number of communities adopting higher standards beyond NFIP requirements to 50% of counties and 30% of communities (current is 26% counties and 17% communities). Provide advocacy on the regional and state level to ensure that all communities across the region share a base-level of floodplain management support by 2030.	The Regional Flood Plan required Table 6 - Existing Floodplain Management Practices includes information collected from FEMA and TFMA regarding flood regulatory information pertaining to the adoption of minimum NFIP standards and higher standards. To show progress towards the 2033 and 2053 goals we will compare the documented Table 6 data between cycle 1 and cycle 2.	Short Term (10 year)	2038	Floodplain Management
13000018	Achieve 90% voluntary adoption of RFPG minimum standards by counties/cities, including additional minimum flood standards defined during studies conducted through 2038 (10 year). Increase the number of communities adopting higher standards beyond NFIP requirements to 90% of counties and communities.		Long Term (30 year)	2058	Floodplain Management
13000019	Increase nature-based practices through land conservation and restoration programs and participation in landowner incentive programs to encourage voluntary land stewardship practices to manage floodwaters, slow runoff and dissipate flood energy to include riparian, wetland, forest, upland, and other habitat protection programs.				
13000020	Identify existing areas noted for conservation, restoration, and/or habitat protection, and develop a strategy for expanding these programs and/or identifying high success areas for riparian/wetland/forest conservation, restoration, and upland protection programs to enhance flood mitigation benefits. Identify preferred areas in Nueces Basin to expand federal and state land protection programs, and other programs that provide incentives for voluntary land conservation and restoration. Preserve 10% of undeveloped riparian corridor mileage and protect 5% of acreage within the 100-year floodplain through voluntary, local, state, or federal land conservation programs.	The NRA, in partnership with the Nature Conservancy, submitted an FIF application to the TWDB on July 2, 2025 to scale up nature based solutions through the Nueces Basin. Through the development of a basin-wide prioritized portfolio of NbS, the project will meet the following objectives: <ul style="list-style-type: none">Identify high-impact, site specific opportunities for nature-based flood mitigation that align with NbS flood mitigation projects and strategies that consider both risk reduction and ecological benefits in targeted areas of the Nueces River Basin (NRB) Regional Planning Area. both ecological priorities and community needs across the Nueces Basin;Establish a replicable framework for evaluating, ranking, and advancing NbS projects based on flood risk reduction potential, ecological benefits, feasibility, and community buy-in; andStrengthen local implementation capacity through technical assistance, training, and tools that enable the communities to move NbS projects from concept to action.	Short Term (10 year)	2038	Floodplain Management
13000021	Work with local leadership to implement nature-based riparian, wetland, and upland conservation and/or restoration programs for 20% of high success areas. Preserve 15% of undeveloped riparian corridor mileage and protect 10% of acreage within the 100-year floodplain through voluntary, local, state, or federal land conservation programs.		Long Term (30 year)	2058	Floodplain Management

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Goal ID	Goal	Progress Towards Achieving Goals from the Previous 2023 Cycle	Term of Goal	Target Year	Overarching Goal
13000022	Develop public information campaign to increase community knowledge of rules and regulations, flood-prone areas, and importance of protecting floodplains from encroachment				
13000023	Identify local, subregional workgroups aligned with flooding issues. Develop public information campaign templates with relevant flood-related communications for 20% of the Nueces Region. Prepare three pieces of public-facing information to use for local newspapers, Facebook and Instagram posts/reels showing information in short bursts.	Receive input from Region 13 RFPG members on progress since the 2023 Plan, including successful public information campaigns that have been launched.	Short Term (10 year)	2038	Floodplain Management
13000024	Develop public information plan campaigns with relevant flood-related communications for 80% of the Nueces Region area.		Long Term (30 year)	2058	Floodplain Management
13000025	Increase dedicated funding sources to provide maintenance of drainage and culvert systems (both structural and non-structural solutions) to divert flood flows and identify structural improvements causing flooding issues to remove/rectify.	Receive input from the Region 13 RFPG members on progress since the 2023 plan, and measurable actions of the goal.			
13000026	Increase dedicated funding sources, including state-funding opportunities to support operations and maintenance (O&M). Identify communities that lack resources to maintain drainage and culvert systems, and prepare funding strategy towards addressing 5% of the communities and 10% counties in the Nueces Region.		Short Term (10 year)	2038	Funding
13000027	Develop dedicated funding sources, including state-funding opportunities. Expand funding strategy towards addressing O&M for 40% of affected communities and 80% affected counties in the Nueces Region.		Long Term (30 year)	2058	Funding

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13000028	Identify funding , resources, and technical training for floodplain districts, managers, administrators or designees to enhance technical capacity for identifying floodplain projects, community outreach, and permitting support to verify new projects meet floodplain development requirements.	Receive input from the Region 13 RFPG members on progress since the 2023 plan, and measurable actions of the goal.			
13000029	Identify dedicated funding sources, including state-funding opportunities with a goal of sharing with 10% of the communities and 20% counties in the Nueces Region. Develop a forum type strategy on the Nueces River Authority website for sharing information and public engagement on flood-related issues, including a list of flood mitigation funding programs and potential opportunities for communities to participate in programs to support flood risk reduction programs (such as the Federal Emergency Management Agency’s (FEMA) Community Rating System) to serve as a template for rural and underserved communities.		Short Term (10 year)	2038	Funding
13000030	Develop dedicated funding sources, including state-funding opportunities with a goal of sharing with 60% of the communities and 70% counties in the Nueces Region.		Long Term (30 year)	2058	Funding