

SB3 Outdoor Warning Siren Project Plan Template (County Submission Packet)

1. Project Overview (one- to three-page narrative)

This Project Plan is submitted pursuant to Senate Bill 3 (89th Legislature, 2nd Called Session) and related appropriations and guidance administered by the Texas Water Development Board (TWDB), as supplemented by Senate Bill 5 (89th Legislature, 2nd Called Session) and applicable Board materials.

PLANNING PROJECTS

For counties that have not yet planned their outdoor warning siren systems, this plan establishes the parameters of the Outdoor Warning Siren System for the applicant, including service area, proposed siren locations and related site control, recommended technology – including siren triggers, and project partners to support TWDB review and approval for advance funding and reimbursement purposes.

Please provide a one- to three-page overview of your project. The description should include:

- a summary of the proposed planning activities to develop the parameters of the flood warning siren system, including
 - the system components, including sirens, gauges, and other necessary equipment;
 - a description of the outdoor warning siren service area, including how it corresponds to the flash flood risk areas identified by the TWDB;
 - a summary of recommended partnerships and agreements related to the installation, operation, and maintenance of the flood warning siren system, as identified during the planning process; and
- a summary of partnerships between the project sponsor and other entities, such as municipalities, special purpose districts, and/or agencies established for the purpose of conducting the planning study.

POST-PLANNING PROJECTS

For counties that have undergone planning and are ready to begin developing or improving their outdoor warning siren systems, this plan establishes proposed siren locations, confirms local site control, and provides planning-level cost and schedule information to support TWDB review and approval for advance and reimbursement purposes.

Please provide a one- to three-page overview of your project. The description should include

- a summary of the flood warning siren system and its components, including sirens, gauges, and other equipment that make up the system;
- a summary of locations for siren installation and the rationale for how the final placement of the proposed siren locations were selected;
- the flood warning siren service areas, including all counties, municipalities, and special purpose districts within the service area; and
- a summary of any partnerships and agreements related to the installation, operation, and maintenance of the flood warning siren system, including who assumes ownership responsibility of each component in the system.

ALL PROJECTS: REPORTING REQUIREMENTS

Monthly progress reports, including monthly invoices, and a final report will be required as part of all project plans. The final report must include a countywide outdoor warning siren coverage and gap assessment using the current flash flood risk areas identified by the TWDB, whether provisional or final, applicable at the time of the report. For purposes of this assessment, audible coverage means the area in which the siren alert is at least 70 dB. The assessment must identify:

- existing sirens relied upon for SB 3 compliance, their audible coverage, and whether they meet the applicable Flash Flood Warning Siren Guide requirements;
- recommended or proposed sirens and audible coverage for Planning Projects and installed, replaced, or upgraded sirens and final audible coverage for Post-Planning Projects;
- flash flood risk areas remaining outside the audible coverage of a siren that meets the applicable Guide requirements;
- how the completed project relates to the County's full SB 3 outdoor warning siren need; and
- a planning-level estimate of the additional sirens and funding needed to address remaining gaps, including known constraints, funding shortfalls, and any identified future approach.

Planning-level quantities and costs may be presented as ranges based on the best information available. Vendor quotes are not required. The countywide coverage and gap assessment must be submitted in PDF and GIS formats and must identify the applicable TWDB map name or version, date, and status as provisional or final.

2. Siren Location Information

NOTE: This section does not apply to PLANNING PROJECTS, as siren locations are identified during the planning process.

Provide one row for each proposed outdoor warning siren as well as other components funded by this grant. Note that the TWDB understands that modifications to exact locations may be necessary. Justification must be provided to the TWDB for such changes.

Siren ID (County Decides)	Latitude (DD.ddddd)	Longitude (DD.ddddd)	New or Replacement or Upgrade?	Notes

3. Service Area and Equipment Location Map

NOTE: This section does not apply to PLANNING PROJECTS, as siren locations are identified during the planning process.

Attach an area map showing the relative location of all proposed sirens as well as other necessary project components funded through this grant. The map should also include the service area of the project, including the audible coverage area of each siren. Including two maps, one reflecting the full-service area and one reflecting equipment locations, is acceptable. Maps must be presented in PDF and

GIS format. GIS files and supporting data should be submitted as part of the project plan. The map is not required to include engineering design.

The final report must include updated PDF and GIS maps showing the applicable TWDB flash flood risk areas, existing sirens relied upon for SB3 compliance, recommended or project-funded sirens, corresponding audible coverage, and remaining coverage gaps, as required by Section 1.

(For a map template, see the example map provided in the Flash Flood Warning Siren Guide.)

4. Site Control & Access Certification

NOTE: Either the County or an entity that the County has contracted with may complete this section. Additionally, this section does not apply to PLANNING PROJECTS, as site control and access are identified during the planning process.

The County, or its authorized representative, certifies that:

☐ Option A: it has sufficient legal authority, permission, or ownership interest to install, operate, access, and maintain each proposed siren location identified in this Project Plan, including reasonable ingress and egress for installation and ongoing maintenance, or has contracted with another entity to install, operate, access, and maintain each proposed siren location identified in this Project Plan. The County, or its authorized representative, also certifies that for any development that occurs in the floodplain, all necessary permits have been obtained, including floodplain permits. The County, or its authorized representative, also certifies that all other necessary permits have been obtained and that all applicable regulations have been complied with as part of this project; or

☐ Option B: it is in the process of acquiring all legal authority, permission, or ownership interest to install, operate, access, and maintain each proposed siren location identified in this Project Plan, including reasonable ingress and egress for installation and ongoing maintenance, or is in the process of contracting with another entity to install, operate, access, and maintain each proposed siren location identified in this Project Plan. The anticipated date of full acquisition is: _____. The County, or its authorized representative, also certifies that for any development that occurs in the floodplain, the necessary permits will be obtained, including floodplain permits. The County, or its authorized representative, also certifies that any other necessary permits will be obtained and that all applicable regulations will be complied with as part of this project. The anticipated date by which all necessary permits will be acquired is: _____. **All access rights and permits must be acquired in time to meet the applicable deadlines for release of funds. The County must include updates on acquisition and permits in its monthly progress reports.**

The County assumes full responsibility for operation and maintenance of all sirens installed under this project or has contracted with another entity for operation and maintenance of all sirens installed under this project.

County Authorized Representative:

Name: _____

Title: _____

Signature/Date: _____

5. Requirements Compliance

NOTE: Either the County or an entity that the County has contracted with may complete this section.

Counties are required to certify that their outdoor warning siren systems will meet each of the minimum requirements specified below from the September 2026 Flash Flood Warning Siren Guide, Version 1.1. By initialing next to each of the requirements below, the authorized representative is certifying that the requirement is understood and will be met as part of this project plan.

#	Requirement	Initial
2.1	Communities must identify a primary and backup administrator responsible for their siren system with full oversight and awareness of the system and associated activities.	
2.2	Joint siren operations between municipalities, counties, and/or other government agencies must include a signed and/or adopted Memorandum of Understanding or similar written agreement with documented roles and responsibilities.	
3.1	Communities must follow and document a process for siren site selection.	
3.2	Sirens must produce an audible alert of no more than 123 dB(C) at a distance of 100 feet from the siren. The siren's coverage area is defined as the area in which the audible alert is at least 70 dB. Sirens should be sited to avoid exposing anyone to sound levels exceeding 123 dB(C); otherwise, warning signage must be posted within the affected noise contour.	
3.3	Sirens must have the following: • Both local and remote manual overrides for triggering the siren. • A primary power source capable of operating the siren continuously and reliably. • A backup power source different than the primary power source that is sufficient to operate the siren as designed in the absence of the primary power source (as detailed further below). • Automatic transition between primary and backup power in the event of failure. The backup power source must provide sufficient power for: • 24 hours of standby. ◦ "Standby" refers to the operation state where the system is waiting for a trigger signal and is capable of alert when a trigger signal is received. • 30 minutes of alerting. ◦ This requirement has been modified from the FEMA standard of 15 minutes to provide for a series of 10, three-minute audible alerts. Batteries used for power supply must: • Be automatically and fully recharged to at least 80 percent of maximum rated capacity from the fully discharged state in 24 hours or less. • Be a low-maintenance design with a vendor-specified lifespan of at least five years. Note that this value has been modified from the FEMA standard of three years based on industry experience and advancements in battery technology.	
3.4	Sirens must have a backup communications method that is sufficient to operate the siren as designed in the absence of the primary communication method. The siren must provide automatic transition between primary and backup communication methods in the event of failure.	
3.5	When used as a siren activation trigger, gauges must use at least one form of telemetry capable of transmitting data to a central location at a minimum of every 15 minutes.	
3.6	Sirens must be tested immediately after installation and the results must be documented.	

3.7	Sirens must include at least one stream gauge as an activation trigger. One gauge may serve as a trigger for multiple sirens.	
3.8	All siren electronic components necessary for remote activation and operation must be elevated to or above the 500-year, 24-hour maximum water surface elevation. A separate local manual activation device may be located below this elevation if the manufacturer or provider confirms that its inundation or failure will not impair remote siren operation.	
4.1	An operations plan must be assessed annually and include, at minimum, • Roles and responsibilities, including who is responsible for authorizing activation; • Detection protocols (i.e., trigger(s), threshold(s), etc.); • Activation protocols (i.e., how and when a siren is activated); • Notification protocols for officials, emergency managers, and the general public; • Testing protocols; and • A false alarm policy.	
4.2	Sirens must be tested daily using silent tests and monthly using audible activation to verify sirens are receiving communications and are operational. Primary and backup systems must be tested. The monthly audible activation can be cancelled if severe weather is present or forecasted. All tests must be conducted on a fixed, documented schedule, and test results must be documented. If a test fails, corrective action(s) must be initiated within 72 hours and retesting performed after corrective action(s) are completed. Corrective action(s) and retesting must be documented.	
4.3	A siren must produce clear, audible alert tone(s) with a minimum activation duration of three minutes per alert repeated at regular intervals.	
4.4	The siren system must be integrated with public messaging systems.	
5.1	The siren must be inspected annually following vendor guidelines. Inspection documentation must include, at a minimum, • Inspection findings and any corrective actions required, • Prior year maintenance records, and • Maintenance and inspection documentation for gauges used as activation triggers	
6.1	Communities must conduct public education and outreach to inform populations served by sirens about the system's purpose, testing schedule, alert tones and/or voice messages, and actions to take if activated.	

Requirements for compliance are also available at <https://www.twdb.texas.gov/about/sb3/index.asp>.

Disclaimer:

The Texas Water Development Board (TWDB) does not perform engineering or technical reviews of siren specifications, power sources, or communication methods. The applicant (County) is solely responsible for ensuring that all equipment and installation meet applicable engineering standards, local codes, and operational requirements.

6. Project Budget (Estimated)

Note: PLANNING PROJECTS are generally anticipated to use tasks 1, 2, and 10. For all projects, Task 10 includes the final report and countywide coverage and gap assessment described under All Project Reporting Requirements. Additionally, as part of the final report for PLANNING PROJECTS, please include a narrative description of how the budget amounts for the project recommended in your plan were estimated. Please follow the task structure below and include quantities and unit costs to support the narrative when possible. Vendor quotes are not required.

TASK NO.	TASK DESCRIPTION	BUDGET (\$)
1	Project Management	0.00
2	Initial Project Activities (incl. Planning)	0.00
3	Site Survey & Identification of Utility Conflicts	0.00
4	Hardware and Construction Materials	0.00
5	Installation/Construction	0.00
6	Software and Communications Configuration	0.00
7	Testing and Monitoring	0.00
8	System Inspection	0.00
9	Education and Training	0.00
10	Final Report to TWDB	0.00
	TOTAL	\$0,000.00

Note that cumulative amounts by county over \$1,000,000 are subject to the approval of the TWDB Executive Administrator and would be documented in an amendment to the original grant agreement. Amounts over \$1,250,000 are subject to the approval of the TWDB governing Board in a Board meeting and would also be documented in an amendment to the original agreement.

Please include a narrative description of how the budget amounts were estimated. Include quantities and unit costs to support the narrative. Vendor quotes are not required.

7. Project Schedule (Estimated)

NOTE: PLANNING PROJECTS are generally anticipated to use phases 1, 2, and 7. POST-PLANNING PROJECTS are not anticipated to use phase 2.

Phase	Milestone	Estimated date
1	Project start	
2	Planning and design	
3	Procurement complete	
4	Right of way and necessary permits obtained	
5	Installation complete	
6	Operational / testing complete	
7	Final report and certification	

8. Advance Request (If applicable, up to 25% of the Project Plan)

Amount requested	
Percent of total project estimate	

9. Primary Project Contact

Name:	
Title:	
Phone:	
Email:	

10. Signature of County Representative

Note: This section must be completed by the County.

The project plan template must be signed and submitted by an official representative of the County who is authorized to submit this plan on behalf of the County. This signature affirms that the information provided is accurate to the best of their knowledge at the time of signing and acknowledges that the plan may be updated as necessary.

County Representative:	_____
Name:	_____
Title:	_____
Signature/Date:	_____