

# COURSE CORRECTION

## How Texas Can Unlock the Unrealized Potential of Senate Bill 3 For Achieving Meaningful Environmental Flow Protection

**T**exas is a state with a wealth of natural beauty, including a remarkable bounty of flowing streams and rivers and productive bays and estuaries along the coast. The health of those streams, rivers, and estuaries is at serious risk from flow depletion in the absence of effective flow protections. Recognizing that risk, the Texas Legislature, in 2007, enacted potentially far-reaching legislation (Senate Bill 3) providing for protection of environmental flows in Texas rivers and streams (instream flows) and into bays and estuaries (freshwater inflows). The first environmental flow standards were adopted in 2011 and the ten-year review period for those initial standards provided for in SB 3 is now upon us.

In anticipation of that review process and the consideration of potential revisions to those standards, this summary provides a snapshot of the state of SB 3 implementation 14 years after passage and offers recommendations for steps to be taken by TCEQ and by the Texas Legislature to address shortcomings in implementation and seize the unrealized potential of that legislative effort.

SB 3 established, among other things, a process for adopting environmental flow standards to inform flow-protection provisions for new water rights and affirmative strategies designed to help convert some existing perpetual water rights to flow protection purposes. SB 3 also directed that, where available, unappropriated water—state-owned surface water that has not previously been authorized for diversion and consumption for another use—should be set-aside, in the maximum amounts reasonable, for flow protection and not be available for issuance of permits for competing uses. That

legislation directed an extensive science and stakeholder input process to provide input to the Texas Commission on Environmental Quality (TCEQ), the agency charged with implementing most of those efforts, and mandated a comprehensive adaptive management process to ensure periodic reconsideration and, as appropriate, adjustment of those flow-protection efforts.

***"The first environmental flow standards were adopted in 2011: the SB 3 mandated ten-year review period for those standards is now upon us."***

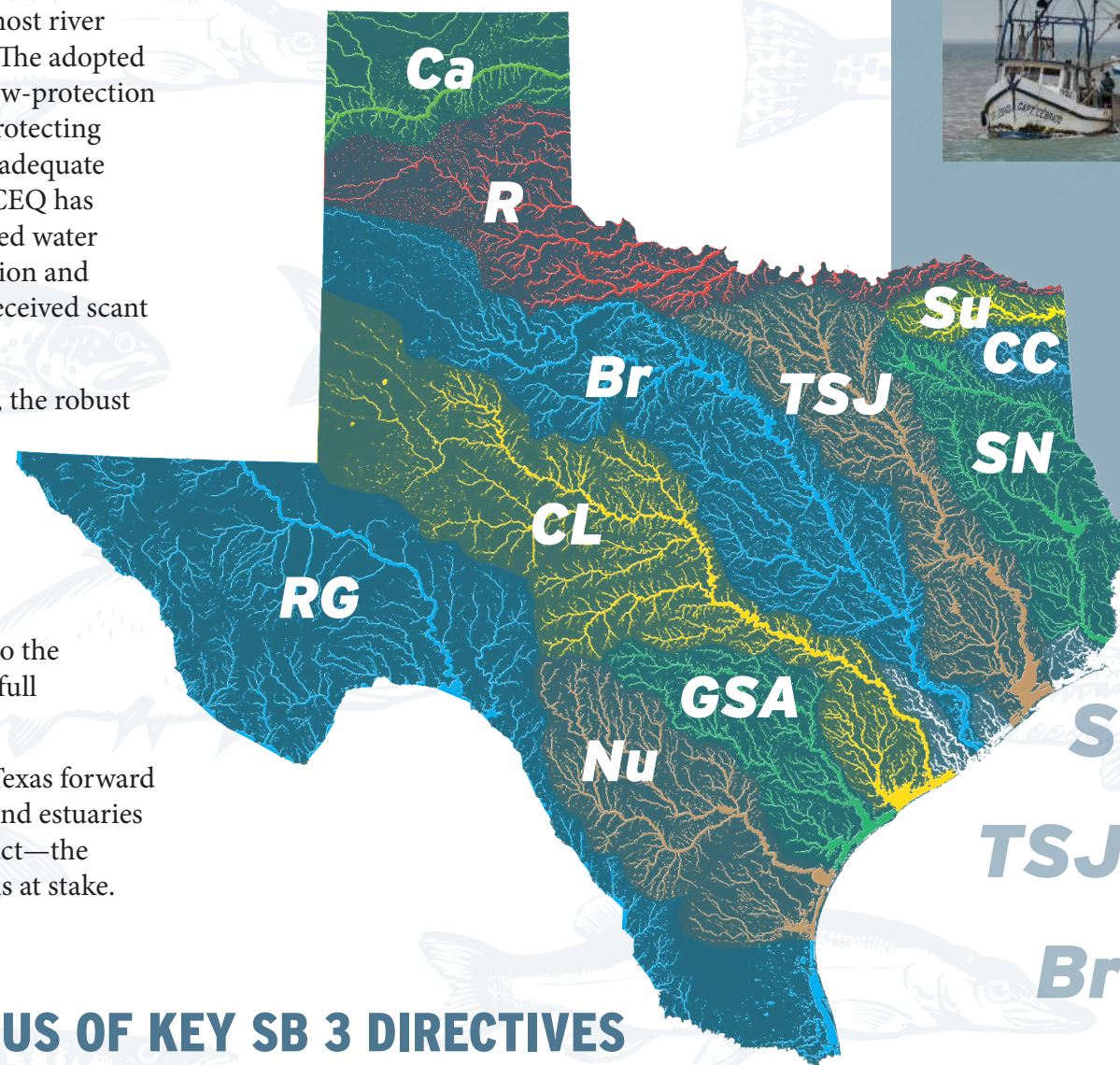


Initial flow standards have been adopted for most river basins in Texas, but those efforts have stalled. The adopted standards, while generally improving upon flow-protection approaches used since 1985, fall far short of protecting the levels of flow scientists identified as being adequate to protect a sound ecological environment. TCEQ has not established any set-asides of unappropriated water for flow protection. The process for identification and implementation of affirmative strategies has received scant attention.

Although the shortcomings are disappointing, the robust adaptive management process contemplated in SB 3 provides ample opportunity to overcome those shortcomings, particularly with some legislative refinements. The recommendations outlined on page 4 provide a roadmap for seizing that opportunity. See [texaslivingwaters.org/sb3](https://texaslivingwaters.org/sb3) for a deeper dive into the current state of SB 3 implementation and our full roadmap for getting it back on track.

SB 3 holds tremendous potential for moving Texas forward in ensuring healthy streams, rivers, and bays and estuaries for future generations of Texans. It is time to act—the natural heritage of current and future Texans is at stake.

| Key SB 3 Directive   | Implementation Status as of 2021  |
|--|---|
| <p><b>Development and Adoption of Environmental Flow Standards</b></p>   | <p>~ <b>Partial.</b></p> <p>Flow standards adopted for most areas. Standards less protective than needed.</p>   |
| <p><b>Set-Asides</b></p> <p>State-owned surface water not previously authorized for other use should be set-aside for flow protection.</p> | <p>✗ <b>No action.</b></p>  |
| <p><b>Affirmative Strategies</b></p> <p>Strategies to help convert some existing perpetual water rights to flow protection purposes.</p>   | <p>✗ <b>Limited to no action.</b></p> <p>Some strategy targets established for inflows to some bays. No significant action to implement strategies.</p> |
| <p><b>Adaptive Management Process</b></p> <p>Periodic reconsideration and adjustment of flow-protection efforts on a 10 year cycle.</p>    | <p>~ <b>Reviews of flow standards to begin no later than 2021.</b></p> <p>Review process, which is undefined and unfunded, has not begun.</p>           |



|                   |  | ✓ = fully implemented  | ✓ = partially implemented | ✓ — = limited implementation | ✗ = no action        |  |
|-------------------|--|--|---------------------------|------------------------------|----------------------|--|
| <b>SN</b>         | SABINE-NECHES RIVER BASIN AND SABINE LAKE  | Adopted: 2011  |                           | Review Due: 2021             |                      |  |
|                   |  | ✗ Ongoing BBASC* meetings  | ✗ Strategy targets        | ✗ Set Asides                 | ✓ — Protection level |  |
| <b>TSJ</b>        | TRINITY-SAN JACINTO RIVER BASIN AND GALVESTON BAY  | Adopted: 2011  |                           | Review Due: 2021             |                      |  |
|                   |  | ✓ Ongoing BBASC meetings   | ✗ Strategy targets        | ✗ Set Asides                 | ✓ — Protection level |  |
| <b>Br</b>         | BRAZOS RIVER BASIN AND ASSOCIATED ESTUARY SYSTEM   | Adopted: 2014  |                           | Review Due: 2024             |                      |  |
|                   |  | ✓ Ongoing BBASC meetings   | ✗ Strategy targets        | ✗ Set Asides                 | ✓ Protection level   |  |
| <b>CL</b>         | COLORADO-LAVACA RIVER BASIN, MATAGORDA AND LAVACA BAYS   | Adopted: 2012  |                           | Review Due: 2022             |                      |  |
|                   |  | ✓ Ongoing BBASC meetings   | ✓ Strategy targets        | ✗ Set Asides                 | ✓ Protection level   |  |
| <b>GSA</b>        | GUADALUPE, SAN ANTONIO, MISSION, AND ARANSAS BASINS AND MISSION, COPANO, ARANSAS, AND SAN ANTONIO BAYS | Adopted: 2012  |                           | Review Due: 2022             |                      |  |
|                   |  | ✓ Ongoing BBASC meetings   | ✓ Strategy targets        | ✗ Set Asides                 | ✓ Protection level   |  |
| <b>Nu</b>         | NUECES RIVER BASIN AND CORPUS CHRISTI AND BAFFIN BAYS  | Adopted: 2014  |                           | Review Due: 2024             |                      |  |
|                   |  | ✓ Ongoing BBASC meetings   | ✓ Strategy targets        | ✗ Set Asides                 | ✓ — Protection level |  |
| <b>RG</b>         | LOWER LAGUNA MADRE ESTUARY AND RIO GRANDE RIVER BASIN AND ASSOCIATED ESTUARY SYSTEM                    | Adopted: 2014  |                           | Review Due: 2024             |                      |  |
|                   |  | ✗ Ongoing BBASC meetings   | ✗ Strategy targets        | ✗ Set Asides                 | ✓ Protection level   |  |
| <b>Ca R Su CC</b> | CANADIAN, RED, SULPHUR, CYPRESS CREEK RIVER BASINS AND VARIOUS COASTAL BASINS                          | No BBASC named and no flow standards yet adopted for these basins. |                           |                              |                      |  |

\*Bay and Basin Area Stakeholder Committees (BBASC) were charged by SB 3 to appoint science teams, develop flow standards and strategies, and develop plans for periodic review of all components at least once every 10 years.

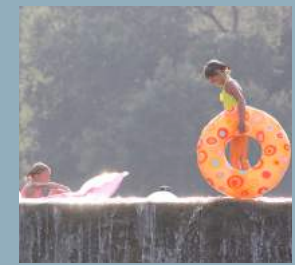
## Fishing

Commercial and recreational fishing along the Texas Coast are both threatened by the longterm reduction of freshwater inflows.




## Whooping Cranes

Inflows from the Guadalupe and San Antonio Rivers support the only wintering home for the tallest bird in North America (which remains highly endangered).



## Recreation

Swimming, kayaking, and fishing are beloved Texas pastimes and large economic drivers that depend on the healthy flow of water throughout the state's streams and rivers.



## Oysters

Oysters have traditionally thrived in Texas bays and estuaries where they provide multiple benefits. Prolonged periods of low freshwater inflows put oysters at risk.



## Mussels

Texas rivers are home to more than 50 species of freshwater mussels. A foundational layer of the food pyramid, mussels are vulnerable to highly altered flow regimes and many species in Texas are now in rapid decline.



# RECOMMENDATIONS FOR TCEQ PROCESS

## 1. Adopt set-asides where possible and at maximum level reasonable

TCEQ should, as part of the SB 3 adaptive management process, adopt set-asides where unappropriated water is available and in amounts that represent the maximum reasonable levels in order to protect flow events that are critical to protection of a sound ecological environment.

## 2. Establish strategy targets for all basins, including for instream flow components

TCEQ should revise existing environmental flow standards and incorporate a full suite of strategy targets, for instream flows and freshwater inflows, defining flow levels adequate to support a sound ecological environment to help inform implementation of affirmative strategies for flow protection and consideration of environmental flow needs in the state's water planning process.

## 3. Revise flow standards to incorporate additional protection approaches beyond pass-through requirements

TCEQ should revise existing environmental flow standards to incorporate reasonable requirements for permit provisions in addition to pass-through requirements, using mechanisms such as releases from storage and quantified levels of return flows, in new permits to help support a sound ecological environment in the state's streams, rivers, and bays and estuaries.

## 4. Improve freshwater inflow protections including by ensuring meaningful implementation approaches for the mandated reopener mechanism for freshwater inflow protections

TCEQ should revise its approach for implementing freshwater inflow protections by ensuring that all new permits include quantified freshwater inflow requirements sufficient to allow calculation of annualized totals. Regardless of whether those inflow requirements are directly applied in governing permit operations on a real-time basis, the revised approach should ensure that the reopener provision can be effectively implemented to increase freshwater inflow protections when determined appropriate.

## 5. Move away from simplistic subsistence/baseflow instream flow protection approaches and from relying on an unduly limited number of compliance points

TCEQ should revise its flow standards to incorporate, for all basins, multiple-level base flow requirements for instream flow protection with reasonable hydrological-condition criteria for determining which base-flow level applies and when subsistence level protections are in effect. TCEQ also should revise the flow standards, or its implementation approach, to incorporate additional compliance points to protect flow in significant tributary streams and to minimize travel-time complications for implementing pulse flow requirements and approaches such as the 50 percent rule.

# RECOMMENDATIONS FOR OVERALL PROCESS

## 1. Initiate a new approach to develop and implement recommendations for flow protection through improved management and conversion of existing permits to flow protection.

The Legislature should re-energize the Environmental Flows Advisory Group, including by establishing a Texas Environmental Flows Transaction Experts Committee to provide specific recommendations to the Advisory Group. That new committee should be funded and tasked with developing specific proposals for facilitating and incentivizing environmental flow transactions and for improving water rights management to facilitate environmental flow protection.

## 2. Revitalize scientific and stakeholder input processes to inform adaptive management component of SB 3

The Legislature should recognize the critical need for continued engagement of the Texas Environmental Flows Science Advisory Committee, Bay and Basin Area Stakeholder Committees, and Bay and Basin Expert Science Teams in the ongoing adaptive management components of SB 3. Those groups should be explicitly continued in existence beyond the time when initial flow standards are adopted for all basins, with a clearly defined ongoing role in the process for revision of flow standards and work plans, including consideration of affirmative strategies, and provided with reasonable funding to support that critical work.

## 3. Proactively incorporate consideration of environmental flow needs into water planning

The Legislature should strengthen its directives for the state's water planning process to ensure more comprehensive consideration of environmental flow needs. Regional water plans should be expressly required to evaluate the potential for implementation of affirmative strategies to help meet comprehensive environmental-flow strategy targets.

## TO DIVE DEEPER INTO THE PROBLEMS AND POTENTIAL OF SB 3 READ OUR FULL REPORT AT [TEXASLIVINGWATERS.ORG/SB3](https://TEXASLIVINGWATERS.ORG/SB3)



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