

Flowing Rivers and Healthy Bays: New Legislation Will Protect Water for the Environment

What are 'environmental flows'?

Environmental flows are the amount of water necessary for a river, estuary or other freshwater system to maintain its health and productivity.

Why this law is unique

In Texas, like much of the West, the concept of leaving water for the environment has been controversial. Water left in a river to flow out into an estuary or the Gulf of Mexico was once commonly described as 'wasted.' Now we know better.

The new law is one of the most comprehensive in the nation, as it will set environmental flow standards for every major river system in the state. The law sets up a public process for soliciting input from scientists and stakeholders. The state will then adopt legal standards for each river and bay system.

If implemented well, this should set a national precedent showing how water resources can be managed rationally to meet human needs and protect the environment. The legislation grew out of negotiations between environmental groups and an association of water suppliers.

Why it matters to wildlife

This new law will benefit rivers and streams throughout the state, but its impact may be most pronounced along the coast.

Texas has seven major coastal estuaries, or bays, formed by freshwater from rivers mixing with the saltier water of the Gulf of Mexico. This mixture of salt and fresh water is vital for fish, shrimp, oysters, crabs and many species of birds. It is the engine behind the \$2 billion coastal recreational and commercial fishing economy.

The diversity of bird species found on the Texas coast is among the highest in the world. A birding destination near Matagorda Bay, for example, regularly tops the Audubon Society's prestigious Christmas Bird Count. The endangered whooping crane, which winters along San Antonio Bay near the mouth of the Guadalupe and San Antonio rivers, illustrates the importance of adequate flows (photo).

The issue is pressing

Texas is growing faster than any other state in the nation; the population may double by mid-century. Projections, such as the National Wildlife Federation's 2004 report *Bays in Peril*, indicate that many of the state's rivers and estuaries could end up deprived of adequate freshwater, particularly in drier years. However, there is still time to change course and to avoid serious long-term damage to Texas' rivers and estuaries.



USFWS



The last flock of wild, migrating whooping cranes winters along the Texas coast. Populations of its main food source, the blue crab, are correlated with the amount of freshwater flowing into the San Antonio Bay system. A new law creates a process to determine how much freshwater the bay needs to stay healthy.



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In 2001, the Rio Grande failed to reach the Gulf due to a combination of drought and overuse. Texas' population is expected to double by mid-century, threatening other Texas rivers with the same fate if nothing is done.



Determining how much water is needed

The new law establishes a process for determining how much water is needed and begins the process of securing the water for the environment.

Each area of the state will have a team of stakeholders from diverse interest groups and a science team made up solely of technical experts.

The science team will make recommendations for flow quantities based on what the best available science indicates the rivers and bays need. Then the stakeholder group will look at the science team recommendations and consider them in conjunction with water management policies to develop their own set of recommendations.

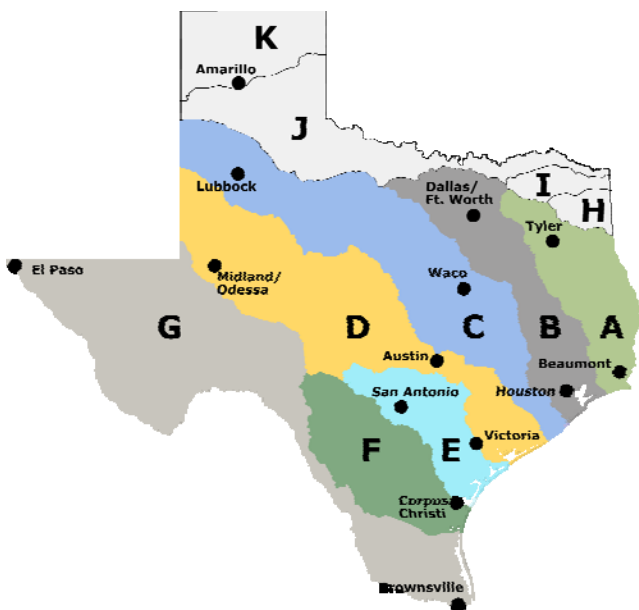
The Texas Commission on Environmental Quality will then consider both the science team recommendations and the stakeholder group recommendations, along with public input, and adopt formal environmental flow standards.

These standards will be the goals for the amount of flows in the river and into the associated bay system. The flow standards likely will use a building-block approach, with a minimum level of flows to be provided during droughts and additional flow levels to be provided during wetter periods.

Securing the water

When adopting the flow standards, the state environmental commission will also “set-aside” some of the water that is not already spoken for by existing permits.

In some river systems, however, there will be little water available for the environmental flow set-asides. In these cases, the stakeholder groups will make recommendations on how to make up the difference. This will likely include the dedication of urban return flows, incentives to use water more efficiently, and donations or voluntary purchases of existing water rights.



Basins starting the process July 2008

- A. Sabine & Neches rivers, Sabine Lake
- B. Trinity & San Jacinto rivers, Galveston Bay

Basins starting the process May 2009

- D. Colorado & Lavaca rivers, Matagorda & Lavaca bays
- E. Guadalupe, San Antonio, Mission, & Aransas rivers, Aransas & San Antonio bays

Basins starting the process May 2010

- C. Brazos River & estuary area
- F. Nueces River, Corpus Christi & Baffin bays
- G. Rio Grande & Lower Laguna Madre

Basins with dates to be determined

- H. Cypress River Basin
- I. Sulphur River Basin
- J. Red River Basin
- K. Canadian River Basin



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Commercial and recreational fishing along the Texas coast create \$2 billion of economic activity annually. Most of Texas' marine sportfish depend on the mix of salt and fresh water found in estuaries for at least one part of their life-cycle.



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The new law will set flow levels at various points in Texas' rivers, protecting water in the river as well as where the river finally flows into an estuary along the Gulf of Mexico. It is arguably the most comprehensive law of its kind in any state in the nation.

Please get involved! Go to our website www.texaswatermatters.org/flows.htm to learn about what's happening in your area, sign up to get updates as they happen, and to get involved with the stakeholder process. Questions? Call 512-476-9805 or email Jennifer Ellis at ellis@nwf.org.