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## STATE CAPITOL REPORT

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### Moving (Ever So Slowly) to Protect Texas Rivers and Bays

In 2007 the Texas Legislature passed landmark legislation – identical bills SB 3 and HB 3 – that established a complex but significant process for identifying “environmental flow” needs in Texas river basins and their associated coastal bays. “Environmental flows” refer to instream water flows in rivers and their tributaries as well as freshwater inflows into coastal bays and estuaries.

The river flows are necessary to maintain habitat for aquatic organisms (such as fish, of course) in the stream as well as animals that live within the riparian areas adjacent to the stream. The timing, frequency, and volume of freshwater inflows into coastal bays and estuaries is important in maintaining the proper balance between freshwater and the salty waters from the Gulf of Mexico, a balance necessary for the survival of shrimp, oysters, and other species that are critical to the coastal environment and economy. The directive of the Legislature was to identify the flows necessary in the state’s respective river basins and bays that are necessary to maintain “a sound ecological environment.”

#### Going Down the Coast

The new law enacted in 2007 set in motion a staggered process for identifying those environmental flow needs and setting standards for them. The process was structured to tackle two or three “bay/basin areas” at a time – starting first with the Sabine & Neches River Basins and Sabine Lake as one bay/basin area and the Trinity & San Jacinto River Basins and Galveston Bay as the other in the first round.

To make a long story as short and simple as possible, a state Environmental Flows Advisory Group of legislators and state agency representatives was tasked with establishing a stakeholder committee of diverse interests for each bay/basin area. The stakeholder committee in each area was then charged with appointing an expert science team for their area to assess current available science and recommend environmental flow “regimes” for that area.

The stakeholder committee was then to take those scientific recommendations, possibly modify them to reflect social and

*see Flows, page 2*

**Flows**, *continued from page 1*

economic concerns, and then recommend environmental flow standards for its area to the Texas Commission on Environmental Quality (TCEQ), which would ultimately adopt the official standards (TCEQ would also receive the expert science team recommendations directly). Strategies would then be devised to try to meet those standards where possible – in some cases potentially a “mission impossible” due to restrictions on affecting existing water rights that had been issued in the respective river basin.

From an environmental perspective the experiences in the first two bay/basin areas addressed under the law were – shall we say – less than optimal. Without going into detail here, let’s just say that the recommendations to TCEQ from the stakeholder committee in the Sabine initially was to not adopt any environmental flow standards, and the stakeholder committee for the Trinity and San Jacinto could not reach a consensus on recommended standards (and neither had their science team). The predictable result was that TCEQ adopted inadequate standards for both of those bay/basin areas.

**New Optimism**

The good news, however, is that there is the prospect that better environmental flow standards will be forthcoming in the next two bay/basin areas undergoing the process – the Guadalupe Basin and San Antonio Bay, and

the Colorado Basin and Matagorda Bay (these are the short names). This issue of the *State Capitol Report* describes the outcome of the science team and stakeholder deliberations on environmental flow recommendations for those respective bay/basin areas. In one instance there was a consensus on proposed environmental flow standards, and in the other situation an overwhelming majority of support.

The ultimate outcome in these two situations rests, however, with TCEQ, which has already held a public meeting on the recommendations. The TCEQ staff will propose the draft standards in February for these two bay/basin areas. Then there will be a public review and comment period, including a public hearing probably on April 3. The current schedule is for the TCEQ Commissioners to adopt the standards in July and have them take effect in August. Stay tuned for further information and requests for public comments.

**For More Information**

If you want more background on the Texas environmental flows process and want to stay updated on how it’s proceeding, go to the TCEQ website. BUT don’t expect to find the information easily. You can’t go to the TCEQ home page or the TCEQ water page and find “Environmental Flows!”

Here’s the link you need:

[http://www.tceq.texas.gov/permitting/water\\_rights/eflows](http://www.tceq.texas.gov/permitting/water_rights/eflows)

# Environmental Flows for the Guadalupe Basin & San Antonio Bay

By Tyson Broad, Research Associate, Lone Star Chapter

The debate over water resources in the San Antonio and South Central Texas region has a long history of conflict. Over the last few years, however, stakeholders in the region have discovered that a spirit of collaboration can potentially solve some of these long-standing issues, including the allocation of flows for the environment.

When the Environmental Flows Advisory Group appointed members to the environmental flows Stakeholder Committee for the Guadalupe and San Antonio Bay/Basin area in the fall of 2009, many of the named stakeholders had been working together for over two years to resolve water-use issues related to the Edwards Aquifer. Over the next two years, the same spirit of collaboration amongst stakeholders resulted in development of creative solutions for addressing some of the region's environmental flow challenges.

## **Task One: Name an Expert Science Team**

Early on the Stakeholder Committee adopted the moniker GSA BBASC (Guadalupe-San Antonio Basin and Bay Area Stakeholder Committee) as a substitute for the impossible official title: Guadalupe, San Antonio, Mission, & Aransas Rivers/Mission, Copano, Aransas, & San Antonio Bays Area Basin and Bay Area Stakeholders Committee. The GSA BBASC

then set out to accomplish their first official task: the appointment of a Basin and Bay Expert Science Team (BBEST) whose charge was to develop science-based environmental flow recommendations—how much water needs to remain flowing in the rivers and into the bays to protect a sound ecological environment.

Over the course of the following year, while the Expert Science Team worked to develop their environmental flow recommendations, the BBASC met monthly to increase understanding of water use in the basin, learn the components of a healthy environmental flow regime, and become better acquainted with other members of the Committee. Once the BBEST completed their efforts in March of this year, the Bay/Basin Stakeholder Committee was ready to initiate its second task: balancing the water needs of the environment with human needs for water.

## **Task Two: The Balancing Act**

The Stakeholder Committee began balancing environmental and human water needs by evaluating how much a proposed water project would be impacted if the environmental flow recommendations from the BBEST were fully adopted. Such impacts to the proposed Guadalupe Blanco River

**Guadalupe & San Antonio**, *continued from page 3*  
Authority (GBRA) Mid-Basin Project water supply project, located on the Guadalupe River near Gonzales, were used as a touchstone. (This project is one of the major new water supply projects planned for in the region. The project has not yet been permitted by the Texas Commission on Environmental Quality (TCEQ), and will be subject to the new environmental flow protection standards coming out of this process.)

The evaluation of the BBEST's environmental flow recommendations showed the yield of this 25,000 acre-foot off-channel reservoir would have been reduced to about 13,000 acre-feet if those environmental flow recommendations were the standards applied to the project. Yet through the arduous process of balancing, the BBASC eventually developed a flow regime recommendation that increased the yield of the project to nearly 23,000 acre-feet, while retaining the most critical elements of environmental flow protection.

### **Addressing Existing Water Rights**

The findings in the BBEST environmental flows report highlighted an issue that Sierra Club and the Texas Living Waters Project have been raising since the "Bays in Peril" report was released by the Project in 2004. The biggest threat to Texas coastal bays in the future will be the prospect that all existing water rights will be fully used by the holders of those rights – in other words, that the cities and other entities

holding those rights will withdraw all the water they are entitled to and not return any of that water to the stream.

That would result in insufficient amounts of water being delivered to bays and estuaries. In the Guadalupe-San Antonio Basin, for example, only 30 percent of the permitted amount of water rights is currently being used.

Though the BBASC recommendations can only impact new water rights, the Committee developed some creative solutions to begin addressing the potential impact of full water rights utilization. As part of the agreement among stakeholders that allows more water to be available for water supply projects such as the Mid-Basin project, the BBASC voted to require most future permits in the basin dedicate 10 percent of their permitted water to flows to the bays and estuaries.

The Committee, using analyses provided by National Wildlife Federation, created a list of strategies that could be implemented to meet the environmental dedication requirement. Strategies to consider for providing additional water to the bays include:

- Dedication of wastewater return flows
- Conversion or dedication of underutilized water rights
- Increasing the storage capacity of off-channel reservoirs for releasing water to the bays when most critically needed
- Dedication of conserved water

## Environmental Flows in the Colorado & Lavaca River Basins and their Associated Bays and Estuaries

By Jennifer Walker, Water Resources Specialist, Lone Star Chapter

In October 2009, the state's Environmental Flows Advisory Group appointed a diverse group of stakeholders representing different interests to serve as members of the stakeholder committee for the Colorado & Lavaca Rivers and Matagorda & Lavaca Bays (BBASC). These stakeholders were charged with developing a consensus-based recommendation for environmental flow standards for the river and bays they represented.

The first task of the BBASC was to appoint a Basin and Bay Expert Science Team (BBEST). The BBEST is a group of scientists and engineers charged with developing an environmental flow regime recommendation that will be adequate to support a sound ecological environment. The BBEST was tasked to consider the best available science in developing those recommendations, without consideration of factors. The BBEST completed its charge by March 2011 and provided the BBASC with a consensus report.

### The Stakeholder Process

The BBASC then had six months, from March 1, 2011 to September 1, 2011, to consider the BBEST recommendations while also considering competing water needs, both present and future to develop a consensus-

based recommendations for environmental flow standards and for strategies to meet those standards. The BBASC developed the following goal statement to guide the group's deliberative process:

“Develop implementable recommendations that provide for a sound ecological environment in the basins, including the rivers, bays and estuaries, balanced with sufficient water for other beneficial uses and which include an adaptive management process that provides for future sustainability.”

Using Water Availability Modeling (WAM) analysis results to inform decision-making for each site within the river basins and bays, the Committee examined unappropriated flows at sites along the river identified by the BBEST, regulated flows at other locations, and the hypothetical situations with new water supply projects. This activity satisfied the requirement that the Committee examine impacts of the proposed environmental flow regime on water supply projects.

The Committee adopted environmental flow standards that include recommendations both for instream flows (the water that flows in rivers and streams) and freshwater inflows

**Guadalupe & San Antonio**, *continued from page 4*

## Moving Solutions Forward

Creative solutions for addressing water resource issues have been implemented in other states, but this is a first for Texas. Unfortunately, adoption and implementation of these solutions is not guaranteed.

The environmental flows process, as defined by Senate Bill 3, is to be one of decision-making by consensus. Most members of the BBASC diligently worked towards this goal, with one very notable exception. The strategy of the Guadalupe-Blanco River Authority (GBRA), holder of the lion's share of existing water rights and applicant for additional new water rights, was to block consensus. Why?

In the environmental flows process for the Trinity-San Jacinto Bay/Basin areas, stakeholders were unable to reach consensus. Given this lack of consensus, TCEQ was provided leeway to adopt rules for an environmental flow regime

that were less protective of the environment. Despite numerous concessions made by GSA stakeholders to balance environmental and human water needs and get GBRA to come into consensus, GBRA pursued the strategy of non-consensus throughout the environmental flows process, having seen the result of this strategy in the East Texas basins. In the end, GBRA, along with New Braunfels Utility (a customer of GBRA) and the City of Victoria voted against the BBASC recommendation.

The lack of unanimity in the BBASC recommendations may offer TCEQ the opportunity to adopt less protective rules. However, the GSA BBASC recommendations show strong support from a wide variety of stakeholders.

## Critical Next Steps

The water issues of San Antonio and South Central Texas are often contentious. Yet in this instance, a diverse group of stakeholders came together to develop balanced and creative solutions for addressing some of the problems in the region. It will be important for TCEQ commissioners and legislators to hear public support for the environmental flow recommendations that came out of the BBASC, despite GBRA's lobbying efforts to adopt weaker standards. Anything less will be a setback for the much needed and long overdue environmental flow protections for the region.



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**Colorado & Lavaca**, *continued from page 4*

(water that flows from rivers into bays and estuaries). The BBASC examined several flow components in their deliberations and made recommendations for environmental flows standards for riverine subsistence flows, base flows, pulse flows, and bay freshwater inflow standards. The Committee also considered overbank flows and channel maintenance flows but did not include recommendations for incorporating those components into the standards. The Committee also developed specific recommendations for the use of hydrologic indicators to be used in the implementation of the multiple levels of base flows that were recommended.

The BBASC was able to develop a consensus set of recommendations for the Colorado and Lavaca Rivers and Matagorda and Lavaca Bays. In the spirit of consensus decision making and balancing competing interests there were compromises along the way, but in the end the BBASC agreed to the full set of recommendations.

**Looking to the Future**

Throughout the process it was apparent that in many cases there was not sufficient water available either now or in the future to meet the environmental flow recommendation that the Committee recommended. The Committee recommended strategies to “close the gap” between what is needed to meet their environmental flow recommendations and how

much water is available now or in the future.

The Committee identified both voluntary and regulatory strategies that can be implemented in order to provide water for environmental flows. A sampling of the recommended strategies that are applicable on a basin-wide scale are donation, purchase or lease of existing water rights, conservation, and exploring alternative water supplies. Other site specific recommendations were included as well.

The BBASC also is charged with developing a work plan establishing a periodic review and refinement of the BBEST recommendations, the standards adopted by TCEQ, and the strategies identified for meeting those standards. That review is to occur no less frequently than once every ten years. The work plan also is to include monitoring, studies, and other activities designed to provide for an adaptive management approach to environmental flow protection. The BBASC is currently developing their work plan.

The Environmental Flows Recommendation Report may be accessed on the TCEQ website: [http://www.tceq.state.tx.us/assets/public/permitting/watersupply/water\\_rights/eflows/collavbbascreport\\_82011.pdf](http://www.tceq.state.tx.us/assets/public/permitting/watersupply/water_rights/eflows/collavbbascreport_82011.pdf)

*(Note: This article utilizes information provided in the C/L BBASC Environmental Flows Recommendation Report.)*



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<b>INSIDE:</b>	
Texas Rivers	Page 1
Guadalupe & San Antonio	Page 3
Colorado & Lavaca	Page 5

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