

### 3. The GBRA-TAP Agreement Update

In 2011, The Aransas Project (TAP) filed a federal lawsuit against the Texas Commission on Environmental Quality (TCEQ) Commissioners over the death of 23 endangered whooping cranes. The suit, *TAP vs. Shaw*, sought to require the TCEQ to develop a habitat conservation plan (HCP) to address the potential harm that occurred to the whooping cranes from a decrease in water inflows to the bay in 2011. This suit was decided by federal judge Janis Jack in favor of TAP in 2014 but in 2015 was overturned by the 5<sup>th</sup> Circuit Court of Appeals. After the U.S. Supreme Court refused to hear the case, an improbable agreement was reached between TAP and the Guadalupe-Blanco River Authority (GBRA). The first agreement was signed by Bill West, the General Manager at the time, and me, and a second agreement was subsequently signed between me and the new general manager, Kevin Patteson.

I am pleased to report that this agreement appears to be leading to significant long-term positive developments in the Guadalupe River watershed and San Antonio Bay. Perhaps most significantly, GBRA has recently hired Nathan Pence to lead our joint efforts to address some important long-term management issues raised by these agreements as well as to work on GBRA watershed-wide stewardship issues. Nathan comes to GBRA from the Edwards Aquifer Authority where he was responsible for implementing the Habitat Conservation Plan (HCP) established to manage and protect the endangered species at the Comal and San Marcos springs. Nathan's hiring is a very positive step that follows the completion of an implementation study prepared by Ross Strategic for GBRA and TAP under funding from the Cynthia and George Mitchell Foundation.

The GBRA-TAP agreement is focused on several issues that either led to or were implicit in the initial dispute in federal court including (1) freshwater inflow for San Antonio Bay, (2) water flows through and habitat within the Guadalupe Delta, (3) habitat expansion for the whooping crane flock and (4) long-term measures to increase water flow in the Guadalupe River through prairie restoration. These issues are discussed sequentially.

Freshwater inflow to San Antonio Bay was the key focal point of the litigation federal court filing and remains the central but not sole issue going forward. Freshwater inflow is the life-blood of an estuary like San Antonio Bay and is essential in the life cycle of blue crabs, the key food source for whooping cranes, as well as virtually all fish life in the bay. Without freshwater inflow, we would have no coastal recreational and commercial fishing. It is simply essential, yet in very short supply, as the Guadalupe and every other Texas river are simply overallocated to users during times of drought. Here, the key issue to be attacked is insuring that there is a certain amount of freshwater that will get to the bay during times of drought. Nueces Bay was killed because insufficient freshwater inflows got past Choke Canyon Reservoir and Lake Corpus Christi. We must keep that from happening to other estuaries, starting with San Antonio Bay, and the key here is to define and maintain a “refugia”, a refuge that will be maintained and protected during drought times. How much water that will require and when that water needs to be delivered will be determined moving forward.

Work is also being undertaken on the expansion of the whooping crane flock to bays in addition to San Antonio, Espiritu Santo, Mesquite, Carlos, Aransas and St. Charles where crane territories currently exist. The long-term goal for the last remaining wild flock of

whooping cranes is to expand their numbers, and if this is successful, then this wild flock will require new wintering habitat and territories. Crane numbers are up since the deaths in 2008-2009, and cranes have been observed in several locations including the northern and western portions of Copano Bay, near Port Aransas on Mustang Island and on Matagorda Bay at Powderhorn Lake and Oyster Lake (east of Tres Palacios Bay). The concept here is to identify key areas for expansion and to work with landowners and the U.S. Fish and Wildlife Service to create safe harbor agreements whereby the landowners agree to enhance crane habitat but are exempt from prohibitions that otherwise might attach under the Endangered Species Act. Such agreements are a win for both landowners and conservation, and there is a possibility that landowners can be paid for this expansion by windfarm developers in the Midwest who need to obtain permits under Section 10 of the ESA to prevent them from being liable for the unintended death of an endangered whooping crane. This possibility could be addressed by the Texas Coastal Exchange as discussed in Section 5 of this report.

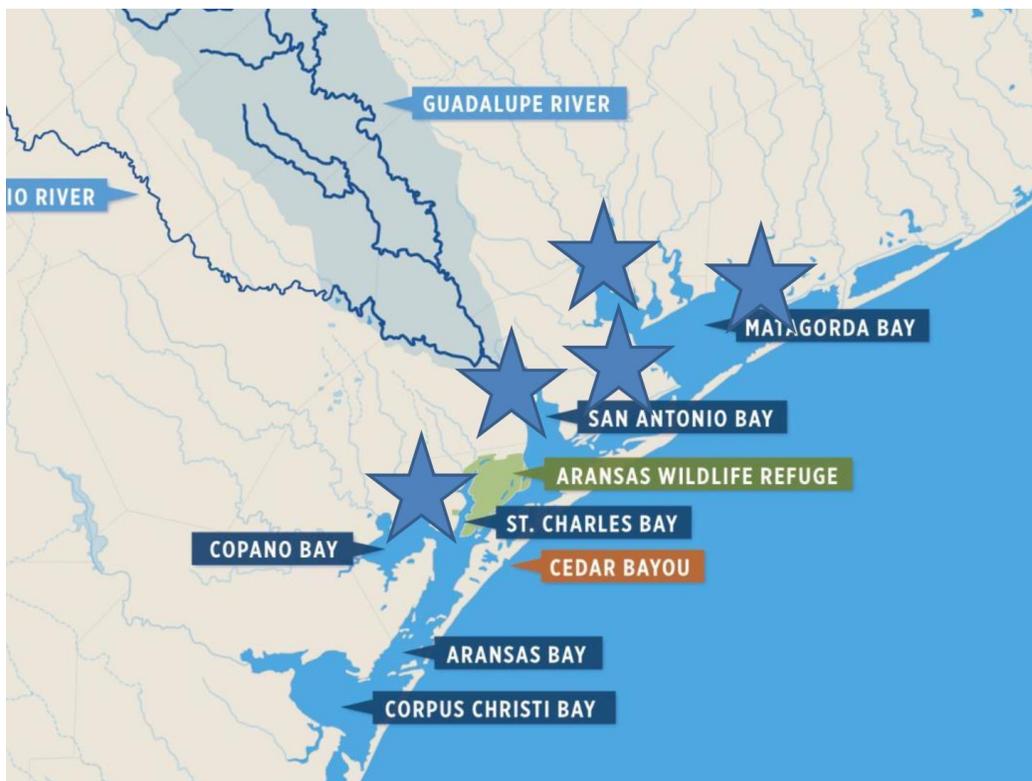


Figure 3. Stars indicate areas where whooping crane usage has been observed and/or is suitable for expanded usage by these cranes, including Copano Bay, the Guadalupe Delta, Powderhorn Lake, Lavaca Bay and Oyster Lake.

A third area of interest is the Guadalupe Delta, the place where the freshwater enters the bay. This area is critical to the health of the bay but is a maze of multiple hyacinth-clogged channels along with multiple permitted water withdrawals and a salt water barrier just up from the Highway 35 bridge. Computer modelers must estimate how much water flows into the bay due to the location of flow gauges upstream rather than within the delta which is affected by tidal exchange. Further, the habitat within the delta is and will continue to change due to sea level rise over time. We need to understand this area more, both for its habitat potential as well as to ensure that the water hopefully allocated to the bay in the future does, in fact, enter the bay.

Fourth, research indicates that changes in land management practices within the Guadalupe River watershed may increase the flow of water during droughts and reduce flooding at Victoria and other downstream urban areas. Specifically, the restoration of natural prairie grasslands is getting attention due to this issue as well as the ability of natural prairie soils to sequester large amounts of carbon dioxide. Anecdotal evidence and some research suggest that management practices such as adaptive multi-paddock (AMP grazing) can increase ranching profitability while restoring native prairies, also increasing carbon sequestration in the soil and the inflow of rainfall into the soils, decreasing runoff during storms and enhancing seeps and springs that provide the base flow for our rivers. The work under

the GBRA-TAP agreement is tied into the Texas Coastal Exchange concept being developed at the SSPEED Center at Rice University and is the subject of section 5 of this update.

Nathan started working in August 2018 and has hit the ground running, talking and meeting with stakeholders, researchers and agency personnel throughout the watershed and trying to get a handle on these tricky issues. Nathan's plan is to present information about numerous environmental programs, including the GBRA-TAP agreement, at a GBRA Board meeting in early 2019. This information will be a first step in establishing implementation strategies to address the four elements of the TAP agreement. Nathan has discussed these environmental issues and some potential implementation strategies with me; given some time, I'm confident that the GBRA TAP agreement will result in a better San Antonio Bay for the whoopers. Nathan has also agreed to a meet and greet with Stakeholders, so please stay tuned for that meeting announcement.