

San Antonio Express-News (TX)

## Freshwater research also warns of dangers

**Author:** Carlos Guerra

**Section:** Metro and State News

**Published:** May 9, 2009

The recent rains were a wonderful respite from what is becoming one of our region's worst droughts. But we are still far short of the rainfall needed to make this an "average year." And let's not forget that during the record 1950s drought, there were 408,000 San Antonians while today, there are 1.4 million of us.

San Antonio and Austin, and the burbs around the two, continue to be among the nation's fastest-growing cities, with no slowing of growth in sight.

So if we must now limit our water consumption, we are likely to face even greater shortages in the near future.

So let's stop thinking of our water woes as a local concern, and let's not forget that we are not the only creatures that depend on the Edwards and Trinity Aquifers - and the San Antonio and Guadalupe Rivers they feed - for our very survival.

At Thursday's meeting of the South Central Texas Regional Water Planning Group, Texas A&M Regents Scholar R. Douglas Slack, led a group of scientists in presenting the report from their seven-year, \$2 million study of the links between freshwater inflows into San Antonio Bay, where the world's last "natural" whooping crane flock spends its winter.

The majestic 14- to 17-pound white birds stand five-feet tall and have a wingspan of seven to eight feet. They were quite plentiful until the 1890s, when habitat loss, hunters and specimen and eggshell collectors began decimating their populations.

By 1937, when President Franklin Delano Roosevelt ordered the establishment of today's Aransas National Wildlife Refuge, only 16 birds were annually migrating between the marshes near Austwelland the Northwest Territories, Canada.

All of today's whooping cranes, captive and wild, are descended from these.

Over two years, Slack and his colleagues observed a juvenile and three adult whoopers, recording their reactions to encroachment by humans, and monitored the salinity of water around the refuge's marshes and the abundance of blue crabs and wolf berries, the cranes' favorite foods. Building models from this data, they found that freshwater inflows greatly affect the abundance of both berries and crabs.

"But whooping cranes are predators," Slack said. "They will take advantage of what's available." After wiping out the berries, they will eat snails, clams, frogs, bugs and even snakes, he said.

"We tested from 20 percent reduction (of freshwater inflow) to 90 percent reduction, and there was still plenty of (food) energy for whooping cranes."

News reports of that finding pleased area developers, who must guarantee adequate water supplies before they can build, since it may signal the potential of drawing more aquifer and river water. But Slack also offered a caveat that has gotten precious little attention.

"But if you reduce the flow of these two rivers, it will be devastating over a long period of time," he said. "That's not good for the estuary. The nutrients (in freshwater) are necessary for the well-being of the entire estuary, for oysters, shrimp and fish."

cguerra@express-news.net