

Blockage of Rio Grande's flow to Gulf could have harmful effects, some fear

By JAMES PINKERTON

May 13, 2001

Copyright 2001 Houston Chronicle

BOCA CHICA BEACH -- When the mouth of the Rio Grande silted up in early February, state water officials predicted the river would soon flow again to the Gulf of Mexico.

Today, the dried-up river bed remains a symbol of a border region undergoing rapid population growth and a diminishing water supply. Five years of drought, reduced flows in the river from upstream reservoirs, and blockages caused by growths of non-native aquatic weeds have combined to stop the Rio Grande short of the sea, experts say.

"It's a disaster in the making," warns Mary Lou Campbell, conservation chairwoman of the Sierra Club chapter in the Rio Grande Valley. Campbell notes there has already been a fish kill upstream of the mouth, near Brownsville.

In the three months since the mouth closed up, the Rio Grande has receded some 480 feet from the seashore. A driftwood log and some orange plastic construction fencing have been installed as a partial barrier, a reminder that the sandy riverbed is an international boundary.

These days, U.S. Border Patrol agents park their distinctive green-and-white sport utility vehicles on what was the Texas side of the mouth, and use binoculars to scan the Mexican side. Occasionally, the agents jump out and wave back people who attempt to walk or drive across the border.

Cameron County officials jokingly refer to the mouth as "our newest international bridge."

Marine biologists and environmentalists are concerned the river's sudden separation from the sea could alter its ecology, and perhaps harm the many species that live in or near it.

Randy Blankenship, a coastal fisheries biologist for Texas Parks and Wildlife, said the miles of twisting river above the mouth -- which normally receive tidal flows from the Gulf -- are an important nursery for marine species that thrive in both fresh and saltwater.

"It creates an estuary that is very productive for many species of invertebrates and fin fish that are important commercially, as well as recreationally," he said.

The Rio Grande produces white shrimp and blue crabs, as well as sheephead, black drum, snook and several varieties of mullet that are staples in the diets of trout and redfish, Blankenship said.

But this year any winter or spring spawns are landlocked and have been lost, he said.

State water officials assign most of the blame to fast-growing hydrilla and water hyacinth, non-native aquatic plants that have clogged the river in many areas.

There are reasons to believe the river may be grand again one day soon.

Carlos Rubinstein, water master with the Texas Natural Resource Conservation Commission, said runoff from brief rainstorms in late April poured into the Rio Grande and may help it break through to the Gulf. Before the rains, water was flowing from 40 to 100 cubic feet per second past a water gauge below Brownsville. It has increased to 300 cfs.

"That should help out," Rubinstein said.

May and June rains deliver the most moisture to the Valley, he said.

And Rubinstein said natural events, including the drought and water weeds, created the problem, and only nature can provide a fix.

"We need to keep sight of the fact that what we're seeing at the mouth of the river today is due to reduced flows from various causes -- the drought, lack of water inflows to the river, and most pervasively, the weeds," he said.

State biologists are preparing to see if a plan to turn loose 20,000 hydrilla-munching, exotic carp into the river is safe.

Earl Chilton, a Texas Parks and Wildlife aquatic expert, said the department has signed a \$43,000 research contract with Southwest Texas State University to release 25 sterile white Amur carp into the Rio Grande. The fish will have radio and ultrasonic transmitters surgically implanted so researchers can track their movement, and ensure they don't migrate from the Rio Grande into other waterways and bays, Chilton said.

If the carp don't wonder off, eventually 20,000 will be introduced into the Rio Grande river from McAllen to Brownsville to control the hydrilla.

Rubinstein's job as watermaster is to order the release of water from the Falcon Dam -- on the Rio Grande above Roma -- at the request of towns, industries and farmers downstream who have purchased water rights.

All of the water rights are taken, and Rubinstein can't just release water to fill up the river.

"There is no surplus water," Rubinstein said. "The water that is within the (reservoir) system is allocated to the water-right holders, and the release from the dams are made specifically to meet the needs and demands of the water-right holders."

Many people feel the remedy will take the form of a hurricane or tropical storm system. After all, a 1954 hurricane filled the newly-completed Falcon Dam reservoir in two weeks, a process that was expected to take five years.

"I'm anxious to see it flow again," said Jimmy Paz, manager of the Sabal Palm Audubon Sanctuary on the banks of the river below Brownsville. "What we need is a great big hurricane that will dump a lot of rain, 30 or 40 inches, up above the dam."

The drought and the lack of water in the reservoirs has prompted talk of weaning the fast-growing Valley from using river water for drinking.

"What we need to do is be much more innovative in our use of water," said Campbell, the Sierra Club official who is also a member of a state water planning board.

"We need to be much more careful about the use-conservation measure and make every drop count and also look at desalination of seawater and ground water," she said.

Blankenship, the marine biologist, says the health of the Rio Grande, and the species that live in it, must be factored into the Valley's water-use equation.

"It really comes down to how high a priority do we place on keeping our bays and estuaries healthy," he said. "Fresh water flows are required to keep them healthy, and the flows are necessary to keep the mouth open."