2009 Basin Highlights Report for the Rio Grande Basin Executive Summary

International Boundary and Water Commission, U.S. Section, Texas Clean Rivers Program (USIBWC CRP), May 2009

This is the Executive Summary of the 2009 Basin Highlights Report for the Rio Grande Basin in Texas. The full report can be found at http://www.ibwc.state.gov/CRP/Publications.html

This Year's Highlights

Presidio Flood – September 2008's floods in Presidio/Ojinaga area caused peak flows over 51,000 cubic feet per second. Despite the damage caused by the flood, the high fast flows benefited the ecosystem by flushing accumulated sediment and exotic plants.

Hurricanes – Hurricanes Dolly in July, Gustav in August, and Ike in September brought heavy rains and strong winds throughout the Lower Rio Grande Valley.

Border Wall – This year the Department of Homeland Security (DHS) planned and constructed hundreds of miles of border fences along the Rio Grande.

IBWC Minute 313 – In February of 2008, IBWC approved Minute 313, in which both Mexican and U.S. Sections agreed on the terms of maintenance of the channel in the reach of the river from El Paso to Fort Quitman.

Photo Credit: J. Bennett

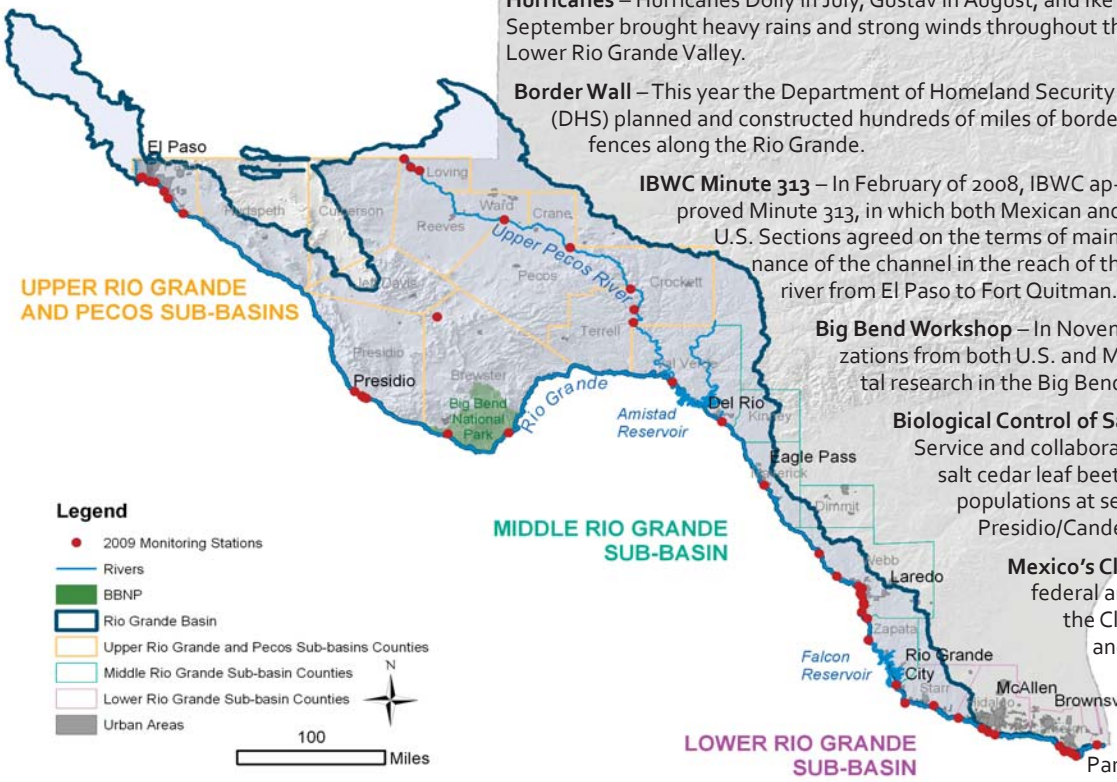
The Ojinaga wastewater plant lagoons under water in the September 2008 flood.

Big Bend Workshop – In November 2008 participants from 25 organizations from both U.S. and Mexico gathered to discuss environmental research in the Big Bend reach of the river.

Biological Control of Salt cedar – USDA Agricultural Research Service and collaborating organizations have released salt cedar leaf beetles to control the invasive salt cedar populations at several sites near the Rio Grande in the Presidio/Candelaria area.

Mexico's Clean Basin Program – Various Mexican federal and state agencies have united to form the Clean Basin Program for the Rio Grande and Rio Conchos basin in Mexico.

Silvery Minnow Release in Big Bend – In December 2008, US Fish and Wildlife Service and the National Park Service released half a million Rio Grande silvery minnows into the river in Big Bend to attempt to recover the native fish population.



TCEQ Border Initiative – The Texas Commission on Environmental Quality (TCEQ) has developed a comprehensive plan that sets priorities for cooperation (local, state, national and international) to deal with border issues.

Binational Water Quality Initiative – TCEQ and EPA are leading a collaborative binational effort to address impairments in the river, focusing on bacteria in the Lower Rio Grande.

Binational Water Quality Database – IBWC with USGS and Mexico is creating a binational water quality database that will provide data from both US and Mexico.

Rio Grande Research Database – USIBWC CRP is creating a database of current and previous literature for research projects occurring in the Rio Grande Basin and will be available online.

Photo Credit: Raymond Skiles, U.S. Fish and Wildlife Service

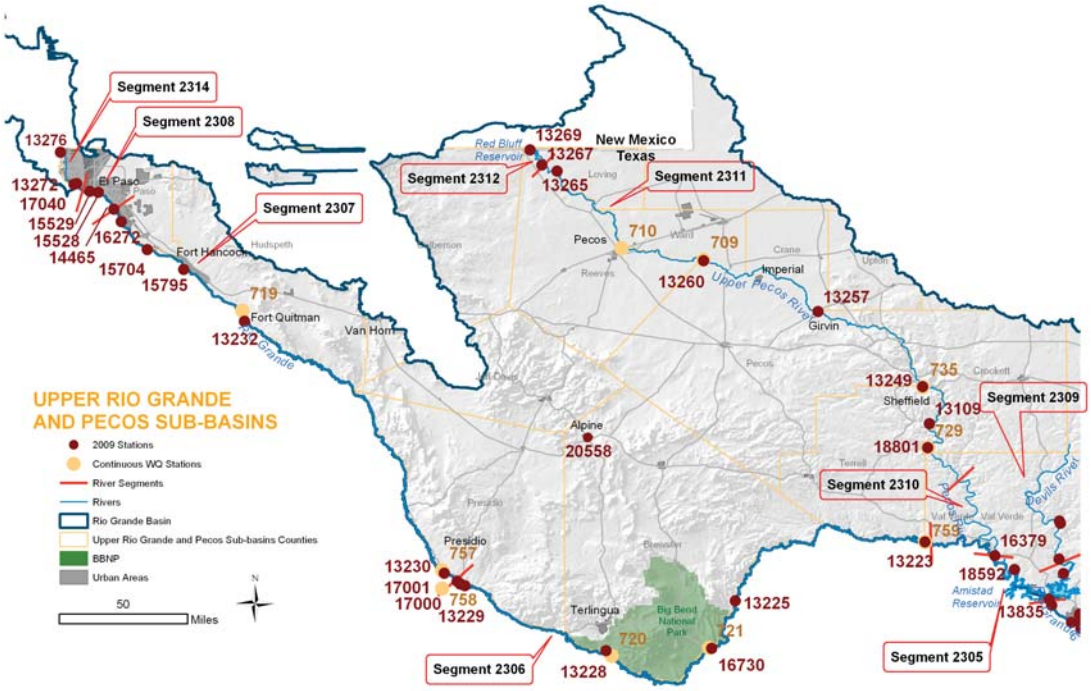
Volunteers assist Fish and Wildlife Service and National Park Service staff with the release of silvery minnows into the river, December 2008.

Getting Involved

- The Basin Advisory Meetings gather private citizens, government agency reps, and academia to ask questions and provide input/information for the Clean Rivers Program to ensure community concerns are addressed. To participate, visit http://www.ibwc.gov/CRP/participation.htm
- In 2009, USIBWC CRP funded several local projects affecting Rio Grande water quality, including research activities and community river cleanups.
- The Texas Stream Team is a network of training volunteers who monitor the river. To get involved, visit http://txstreamteam.rivers.txstate.edu
- The USIBWC CRP website contains water quality data, publications, links, information on public participation, a calendar of current activities, and more.

  http://www.ibwc.gov/CRP/index.htm

Upper Rio Grande Sub-Basin Summary



How can we tell the quality of water?

pH – measure of acidity of water.

Conductivity – an indicator of salt in the water.

Dissolved Oxygen – oxygen in the water

Solids (calcium, magnesium, potassium, chlorides, etc) – indicate high salt

Nutrients – nitrogen compounds, ammonia, and phosphorus

Chlorophyll-a – indicator of excessive algae and high nutrients

Metals – aluminum, arsenic, copper, lead mercury, etc

Organics – herbicides, pesticides, and industrial compounds.

All of the above water quality parameters can cause detrimental affects on the health of aquatic life.

Upper Rio Grande Projects

- Researchers at Big Bend and collaborating organizations are working on several water quality-related projects in the Big Bend area, including tracking sources of nutrients and salinity, understanding water resources in the Lower Canyons, river restoration, and installing continuous water quality equipment.
- USIBWC CRP and other organizations are working on monitoring programs in southern New Mexico below Las Cruces and El Paso area in Texas to address bacteria.
- 23 organics chemicals in sediment have been tested at six stations in the Upper Rio Grande, only detecting DDE upstream of Fort Hancock in February of 2008.

How is the water quality?

The biggest water quality issues in the Upper Rio Grande are bacteria and salinity. The Quality of water changes based on location. Segment 2314 (upstream of International Dam) is impaired due to high bacteria. In El Paso, the river is lined (Segment 2308 Below International Dam) and the water quality standards are lower, although this segment has concerns for nutrients. Below the cemented channel (Segment 2307 Below Riverside Diversion Dam, which includes El Paso's lower valley down to Presidio, TX) has bacteria, salinity, and nutrient problems and the segment is impaired for bacteria, chloride, and total dissolved solids, with concerns for nutrients, chlorophyll-a and depressed dissolved oxygen. Segment 2306, which stretches from the Rio Conchos in Presidio/ Ojinaga through Big Bend and ends at Amistad International Reservoir, is impaired for bacteria with concerns for nutrients and chlorophyll-a. The Upper Rio Grande also includes Amistad International Reservoir (Segment 2305), which only has a concern for nitrate, and the Devils River (Segment 2309), which has nearly pristine waters that meet all water quality standards and provides excellent water to Amistad Reservoir.

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For a full version of the 2009 Basin Highlights Report or more information,

visit http://www.ibwc.gov/CRP/index.htm

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