

Regional Water News: Rio Grande Region

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FOCUS ON ARROYO COLORADO

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Primed for Action

After years of studies, meetings, analyses, and plans, the Arroyo Colorado finally is getting its due. And everyone in the Lower Rio Grande Valley – business people, farmers, cities, private citizens – stands to benefit.

It is clear that the quality of our water and the quality of our lives go hand in hand. High loads of sediment and low levels of dissolved oxygen in the Arroyo Colorado have dramatically impacted millions of fish and other aquatic species.

Perhaps less noticed but equally as dramatic are the impacts to business and industry, be they in the form of increased dredging costs to the Port of Harlingen Authority or decreased yields for the seafood industry.

This issue of *NRS Water News* highlights efforts now poised for implementation. What's needed now is your input and participation. These are crucial to ensuring that the activities planned for the Arroyo Colorado actually take place. Please join us in ensuring quality water for generations to come.



Alan Johnson, Chairman
Board of Directors
Port of Harlingen Authority

Big Plans for the Arroyo Colorado Taking Shape

Years of legwork, study, and careful yet insistent prodding are paying off for the Arroyo Colorado. Two separate projects, both begun in the late 1990s to improve the quality of water in the Arroyo, are now moving toward implementation. Those involved say the projects will benefit the environment, economy, and quality of life of the Lower Rio Grande Valley.

Issues & Approaches

The Arroyo Colorado is an old channel of the Rio Grande that extends about 90 miles from Mission, TX, to the Laguna Madre, which connects to the Gulf of Mexico. The Arroyo is the major source of fresh water to the lower Laguna Madre; about one-third of the stream is used for shipping from the Gulf Intracoastal Waterway to the Port of Harlingen.

Flow in the Arroyo is sustained primarily by wastewater discharges, return water from agricultural irrigation, and urban runoff. Because of this, much of the Arroyo is characterized by high levels of sediment, bacteria, and nutrients. These factors combine with the natural physical aspects of the stream to produce water quality problems, especially low dissolved oxygen (DO), which significantly impacts aquatic life.

According to the Texas Commission on Environmental Quality (TCEQ), low DO and other water quality problems were responsible for 19 documented fish kills in the Arroyo Colorado between 1990 and 2004. Some 26 million fish died in these events. Segments of the Arroyo are on the TCEQ list of "impaired" water bodies. In 1998, the TCEQ initiated a Total Maximum Daily Load (TMDL) project to determine the pollution controls necessary to restore and maintain water quality in the Arroyo. The Watershed Steering Committee established as part of the TMDL now is overseeing development of a Watershed Protection Plan (see page 3).

Simultaneously, the Port of Harlingen Authority, working with the City of Harlingen, initiated efforts to enhance dissolved oxygen in the Arroyo. The projects, says Port Authority Chairman Alan Johnson, promise to "dovetail nicely."

Map of the Arroyo Colorado watershed, courtesy of the TCEQ



Port Plans Rock Weirs

The Port of Harlingen Authority is nearing final clearance from federal agencies on an innovative approach to resolving problems created by sedimentation in the Arroyo. Silt and soil carried by rain and irrigation tail waters build up in the Arroyo, requiring the Port Authority to conduct frequent dredgings of its turning basin at a cost approaching \$100,000 per occurrence.

“We were looking for a way to reduce these costs,” says Chairman Johnson. “What we came up with will mitigate the sedimentation problem while improving the quality of water in the Arroyo and enhancing aquatic life.”

The solution, developed by NRS Consulting Engineers, is a system of three rock weirs strategically placed to keep silt from being deposited into the turning basin. The weirs also will function as aeration structures, explains Bill Norris, president of NRS. The flow of water over the rocks will incorporate significant amounts of oxygen into the Arroyo, thus improving conditions for fish and other aquatic species. In addition, Norris adds, the structures will be placed so as to complement the aesthetics of the existing hike and bike trail that parallels the Arroyo around Harlingen.

The plan has received approval from the International Boundary and Water Commission, which maintains portions of the Arroyo; approval and final go-ahead is expected soon from the U.S. Corps of Engineers. At that point, “we’ll be looking for donations to make things happen,” says Norris.

Funding for the initial analyses and plans has been provided by the Port Authority. The Coastal Conservation Association and the Valley Sportsman Club also contributed funds; NRS has provided in-kind services for the analysis and planning. “We could not have done this without Bill,” says Chairman Johnson.

Stakeholders Map Out Comprehensive Plan

The first round of the Arroyo Colorado Watershed Protection Plan (WPP) also is nearing completion. The plan – scheduled for submission to the TCEQ in January 2006 – will be a comprehensive approach that defines the necessary tasks to reduce pollution and improve water quality and establishes milestones for action.

The plan, explains watershed coordinator Laura De La Garza, will identify causes and sources of pollution, describe measures that can be implemented to reduce pollution, and delineate a schedule for implementation.

In addition, the plan will include a public outreach and education campaign for raising awareness about the Arroyo Colorado and its problems while encouraging citizen participation.

Development of the WPP is being guided by the Arroyo Watershed Partnership with assistance from six work groups specifically focused on agricultural issues, wastewater infrastructure, habitat restoration, education and outreach, land use, and monitoring.



Mouth of the Arroyo Colorado at the Laguna Madre, courtesy of the TCEQ

The work groups already have made strides to develop and even implement recommendations for enhancing water quality in the Arroyo. In August, for example, the Habit Restoration Work Group retained Alan Plummer Associates, Inc., to assist in identifying sites along the Arroyo where habit restoration and/or modifications could enhance water quality.

In addition, the Education and Outreach Work Group is in the final stages of selecting a public relations firm to develop marketing materials.

The public is invited to participate in work group and committee meetings. “We have an opportunity here, an opportunity not only to clean up an impaired water body,” stresses De La Garza, “but also to make the Lower Rio Grande Valley a better place to live.”

The next Steering Committee meeting is Nov. 10 at the Texas A&M Citrus Research Center in Weslaco (time to be announced). For more information about the Arroyo Colorado Watershed Partnership, contact De La Garza at 956-956-2132 or via e-mail at lauradlg@neo.tamu.edu.

Information also is available at the following websites: www.arroyocolorado.org and www.tceq.org/implementation/water/tmdl/arroyo.html.html.

Arroyo Colorado Watershed Steering Committee

Steve Bearden, Rio Grande Sugar Growers Coop

*Richard Eyster, Texas Department of Agriculture

Dr. Jude Benavides, University of Texas at Brownsville

Paul Bergh, Coalition to Save the Arroyo Colorado, CCA,
Lower Laguna Madre Foundation

*Chris Rakestraw, Coalition to Save the Arroyo Colorado

Randy Blankinship, Texas Parks & Wildlife Department

Jim Chapman, Sierra Club

Rocky Freund, Nueces River Authority

Andy Garza, Texas State Soil & Water Conservation Board

Darrell Gunn, Harlingen Waterworks System

Wayne Halbert, Southmost Soil & Water Conservation District #319

Neil Haman, Texas Water Development Board

Alan Johnson, Texas State Bank

Dr. Kim Jones, Texas A&M Kingsville

*Dr. Venkatesh "Venki" Uddameri, Texas A&M Kingsville

Ken Jones, Lower Rio Grande Valley Development Council

Minerva Martinez, Arroyo Property Owner

Don Medina, LRGV Storm Water Task Force

Alan Moore, Cameron County Drainage District #2

Butch Palmer Jr., Port of Harlingen Authority

Marco Pedraza, McAllen Public Utilities

Ray Prewett, Texas Citrus Mutual

Rick Reyes, International Boundary & Water Commission

Amado Salinas, Military Highway Water Supply Corporation

Sam Simmons, Cotton Growers' Association

John Wallace, U.S. Fish and Wildlife Service

*Clare Lee, U.S. Fish and Wildlife Service

*Alternate and Supporting Member

In Brief

Carlos Marín Named Acting IBWC

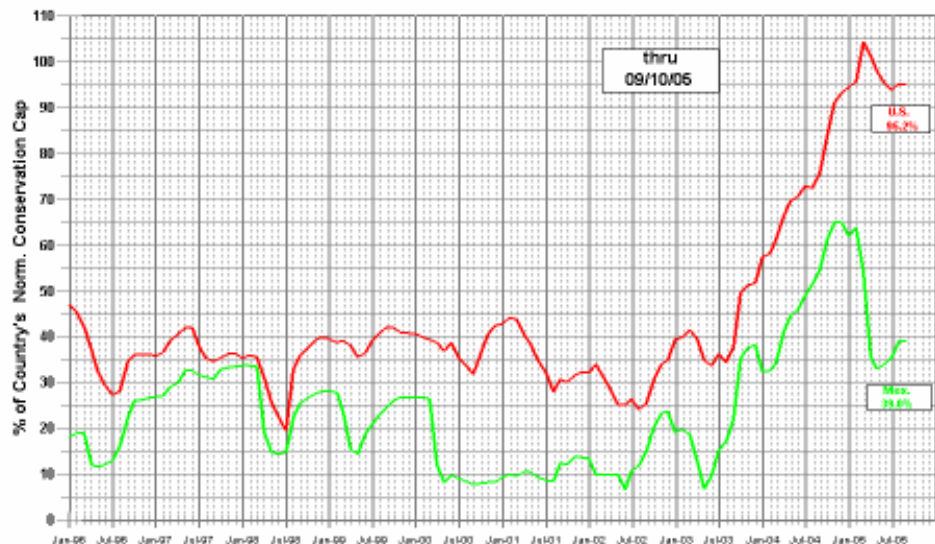
Commissioner. Previously, Marín served in various executive positions within the US Section of the International Boundary and Water Commission (IBWC), including Deputy Commissioner/Principal Engineer; Principal Engineer, Operations Department; and Principal Engineer, Treaty Compliance. Marín began his career with the IBWC in 1979. He received his bachelor's degree in Civil Engineering from the University of Texas at El Paso in 1978 and is a licensed professional engineer in the State of Texas.

Comments Due Sept. 30 on Rio Grande Regional Water Plan. Summaries in English and Spanish and full text of the Initially Prepared Regional Plan are available at www.RioGrandeWaterPlan.org, along with instructions for submitting comments. The Rio Grande Regional Water Planning Group meets Thursday, Oct. 10, at 10 am, Mission City Hall, 1208 E. 8th St., to consider comments.

The Lower Rio Grande Authority has been abolished, effective Sept. 1, and its assets distributed to the Rio Grande Regional Water Authority, in compliance with House Bill 2639 enacted by the 79th Legislature. For more information, go to www.lrga.org.

Amistad/Falcon Reservoir System Percentage of Normal Capacity (as of September 10, 2005)

Amistad-Falcon Percent of Capacity



United States: 95.2%
Mexico: 39.0%

source: www.ibwc.state.gov/wad/storage.htm



Regional Water News is prepared for the benefit of water users in the regional planning area. To contribute information about your project, contact:

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