

2010, the City of San Antonio was awarded a CWA 319(h) grant from the TCEQ to implement several LID features at a major redevelopment site. In 2011, the SARA was awarded a CWA 319(h) grant from the TCEQ to update and revise the WPP in 2012-2013. In fiscal year 2012, major efforts of both projects will begin.

### Third-Party Watershed Protection Plans

#### Lower Nueces River

The Nueces River Authority, with funding from the City of Corpus Christi Water Department, is developing a WPP for the Lower Nueces River below Lake Corpus Christi. The primary drinking water source for nearly half a million people in the Coastal Bend area is delivered via the river from Lake Corpus Christi to water treatment plants at the downstream end of the river. The initial catalyst for the development of a WPP was an incident in November 2009 that caused a turbidity violation at the City of Corpus Christi's O.N. Stevens Water Treatment Plant. Additional threats to water quality that have been identified are: chlorophyll *a*, which has been listed since 2008 as a concern in the *IR*; TDS, the levels of which are nearing the screening criteria; bacteria from malfunctioning septic systems; and illegal dumping.

Nueces County Road 73, just west of the Corpus Christi city limits, parallels the river for approximately two and one-half miles and for years has been a popular site for illegal dumping. The area is subject to flooding and large amounts of trash and debris wash into the river during flood events. In May 2010, the City of Corpus Christi Water Department staff spent several days on boats removing trash and small debris from the river between the upstream end of Nueces County Road 73 and Hazel Bazemore Park in Corpus Christi. In June 2010, the City of Corpus Christi Water Department, with help from Nueces County and several local recycling companies, conducted a three-day



*Nueces River/photo courtesy of Rocky Freund of the Nueces River Authority*

cleanup along the road. A total of 840 cubic yards of trash and debris, over 100 tires, and a trailer load of scrap metal were removed. The City of Corpus Christi led these activities to begin addressing the problem prior to the contract with the Nueces River Authority.

The Nueces River Authority officially began work on developing the WPP in August 2010. The Nueces River Watershed Partnership, <[www.nuecesriverpartnership.org](http://www.nuecesriverpartnership.org)> was formed and had their first meeting in January 2011. There have been two additional stakeholder meetings and the group plans to meet three to four times per year. Five workgroups (education and outreach, water quality, utilities, agriculture, and recreation) have held meetings and will continue to meet as needed. In fiscal year 2011, the TSSWCB funded a preliminary inventory of permitted OSSFs through a CWA Section 319(h) grant to the Nueces River Authority. The City of Corpus Christi has installed three real-time monitoring systems in the river. The education and outreach and the water quality workgroups are working with the GBRA to install educational kiosks in the Nueces River watershed.

#### Paso del Norte portion of the Rio Grande

The Paso del Norte watershed is in the El Paso-Las Cruces area within the Rio Grande Basin located in South-Central New Mexico and West Texas. Here, the Rio Grande flows from below the dam at Caballo Reservoir in New Mexico, a main stem impoundment of the Rio Grande, and extends south to the American Dam in El Paso near the Texas-New Mexico border and the international border with Mexico. The watershed encompasses approximately 2,405 square miles. The Rio Grande in this reach is confined within levees and has a channel width ranging from 110 to 500 feet with a floodplain width ranging from 50 to 2,100 feet. In the lower 15 miles, the Rio Grande flows back and forth from New Mexico to Texas several times before becoming a shared border between Texas and Mexico.

In 2004, the Rio Grande from one mile below Caballo Dam to the international border with Mexico was listed as impaired for fecal coliform in part based on data collected by the IBWC, the City of Las Cruces, and El Paso Community College. Following an intensive water quality survey conducted by the New Mexico Environment Department, and a change in New Mexico water quality standards, the reach was listed for *E. coli* in 2006. A draft TMDL was released in February 2007 by the New Mexico Environment Department and approved by EPA in June 2007.

In the spring of 2006, the Paso del Norte Watershed Council was awarded a CWA Section 319(h) grant through the New Mexico Environment Department to form a watershed group to address the *E. coli* impairment on the Rio Grande in this area. The primary effort was to



above: Rio Grande at Leasburg State Park, New Mexico/photo courtesy of Chris Canavan of the New Mexico Environment Department

right: Daniel Borunda with the IBWC discusses a future wetland project to mitigate stormwater during the November 2010 watershed tour/photo courtesy of Brian Hanson of the New Mexico Department of Agriculture



review existing data to determine the sources of impairment.

Although a draft watershed plan was completed in 2007, the primary conclusion was that there was insufficient data to determine the sources of impairment. In 2010, the Paso del Norte Watershed Council received a second CWA Section 319(h) grant from New Mexico to identify the sources of impairment and produce a viable WPP. Project partners include the Paso del Norte Watershed Council, the New Mexico Environment Department, the New Mexico Department of Agriculture, New Mexico State University, and the Elephant Butte Irrigation District, with additional assistance from the IBWC, the Texas CRP, the City of Las Cruces, Doña Ana County, New Mexico State Parks, and the U.S. Bureau of Land Management.

The Elephant Butte Irrigation District began sampling the agricultural return drains and the Rio Grande for *E. coli* in 2008. Following receipt of 319(h) grant funding in 2010, the sampling effort was refined to include identifying localized elevated *E. coli* "hot spots" and conducting further sampling of these areas to include microbial source tracking.

Preliminary examination of the *E. coli* data in conjunction with examination of flow data suggest elevated *E. coli* levels in the Rio Grande in the upper portion of the watershed are predominately associated with storm water runoff, while the data in the lower portion of the watershed indicate chronic problems not directly related to storm flows. In the past year four sites were identified for microbial source tracking and sampling was initiated and completed; the results of the analysis are expected by early 2012.

Numerous stakeholder activities occurred over the last year beginning with a watershed tour in November 2010. The tour visited potential problem sites, a completed restoration project, and a potential restoration project site, and was attended by federal, state, and local representatives from both Texas and New Mexico as well as three SWCDs, the Elephant Butte Irrigation District, private landowners and concerned citizens. Stakeholder meetings were convened in early 2011 and are ongoing. After presenting the nature of the pollu-

tion problem and the watershed planning process in the initial meeting, topics have included: stakeholder goals and concerns, review of the *E. coli* sampling data, and a review of the draft WPP. In late summer the stakeholders began working on reviewing, updating and submitting comments to be incorporated into the

WPP. Outreach activities have included participation in numerous community events including: Earth Day, the Franklin Mountains Poppy Celebration, Dia del Rio, Raft the Rio, the New Mexico State Fair, and the Whole Enchilada Fiesta. A public information factsheet entitled Bacteria in the Rio Grande was also produced; this effort was spearheaded by the IBWC with funding from the TCEQ CRP, but was a cooperative effort with the Paso del Norte Watershed Council. The Paso del Norte Watershed Council's website was also expanded and improved over the past year to include information on this watershed planning effort and can be found at <[www.pdnwc.org](http://www.pdnwc.org)>.