Annual Update on Water Quality for the Rio Grande and the Clean Rivers Program

USIBWC Citizens’ Forum
and Upper Rio Grande Basin Advisory Meeting
September 29, 2009
Elizabeth Verdecchia and Leslie Grijalva
Texas Clean Rivers Program
U.S. Section,
International Boundary and Water Commission
Texas Clean Rivers Program

History

- 1991 Texas Clean Rivers Act
- 1998 TCEQ-USIBWC partnership
- 2009 monitoring sites on Rio Grande:
  - CRP – 48 sites
  - TCEQ – 38 sites
What is the Clean Rivers Program?

- A state fee-funded program
- A group of federal, state and local organizations that have an interest in the health of our states streams, rivers and lakes.
- The USIBWC Clean Rivers Program collects water quality data from the Rio Grande and Pecos Rivers.
- We then use that data to:
  - identify and evaluate water quality issues
  - establish priorities for corrective actions
  - work to implement those actions.
CRP Activities

- Water Quality Monitoring
  - Routine monitoring
  - Special studies
- Water Quality Assessment
- Publications
  - Annual Basin Highlight Report
  - 5-year Basin Summary Report
- Outreach and Education
- Public Participation
FY09 CRP Accomplishments

- Submitted all data through Nov 2008 for TCEQ 2010 Assessment
- Laboratory accredited for bacteria
- More outreach activities
- Participation in projects such as Big Bend workshops & saltcedar biological control meetings
- Funded 5 water quality/education projects
- CRP in charge of USIBWC Adopt-a-River Program
- Fully-staffed
Funded Projects in the Upper RG

- EPCC Early College Program - Supplies/equipment research in salinity in water and riparian plants
- RiGo – supplies for river cleanups with community groups
- UTEP - Equipment for continuous water quality station in Forgotten Stretch
- EPCC RISE Program – supplies for bacteria source-tracking ongoing research
Other funded projects throughout the Basin

➢ Printed manuals and brochures for soil erosion training in Lower Rio Grande Valley

---

Storm Water Runoff Pollution Prevention
The Lower Rio Grande Valley TPDES Storm Water Task Force and Texas A&M University-Kingsville present:
“Developing and Implementing a Soil Erosion Management Plan at Construction Sites”
This course will designate you as a storm water competent person as defined by the TCEQ’s TPDES program.

Registration Fees
LRGV TPDES Storm Water Task Force Representative ($25.00)
City employee from a Task Force City ($175)
City employee ($250)
Other ($300)

Location: TAMUK Citrus Center
Just north of Espanola Way 83 and FM 1015
Weinlaco, Texas
Interested in Monitoring?

- **Texas Stream Team** - Volunteer WQ Monitoring Program
- Great for teachers
- [http://txstreamteam.rivers.txstate.edu/](http://txstreamteam.rivers.txstate.edu/)
- Contact Leslie Grijalva
Local Partnerships

- 7 partners in the Upper Rio Grande help monitor, collect, & analyze samples:
  - USIBWC Field Offices at El Paso and Presidio
  - University of Texas at El Paso
  - El Paso Community College
  - University of Texas at Brownsville
  - TCEQ El Paso Field Office
  - Big Bend National Park
  - TCEQ Continuous Water Quality Monitoring

- Use TCEQ sampling procedures and an accredited laboratory for analysis
2009 Monitoring Sites

Legend
- Red dot: 2009 Monitoring Stations
- Light blue lines: Rivers
- Dark blue area: Rio Grande Basin
- Green area: Upper Rio Grande and Pecos Sub-basins Counties
- Light green area: Middle Rio Grande Sub-basin Counties
- Light pink area: Lower Rio Grande Sub-basin Counties
- Gray area: Urban Areas

100 Miles
2009 Upper RG Monitoring Sites

31 Upper RG Sites:
17 - IBWC CRP
14 - TCEQ
Water Quality Uses and Standards

- TCEQ uses these standards to assess the river and determine if any segments are impaired (303d List)
- 2308 Non-contact use
- TDS 1400-1800 in river

<table>
<thead>
<tr>
<th>Segment No.</th>
<th>SEGMENT NAME</th>
<th>USES</th>
<th>CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Recreation</td>
<td>Aquatic Life</td>
</tr>
<tr>
<td>2305</td>
<td>International Amistad Reservoir</td>
<td>CR</td>
<td>H</td>
</tr>
<tr>
<td>2306</td>
<td>Rio Grande Above Amistad Reservoir</td>
<td>CR</td>
<td>H</td>
</tr>
<tr>
<td>2307</td>
<td>Rio Grande Below Riverside Diversion Dam</td>
<td>CR</td>
<td>H</td>
</tr>
<tr>
<td>2308</td>
<td>Rio Grande Below International Dam</td>
<td>NCR</td>
<td>L</td>
</tr>
<tr>
<td>2309</td>
<td>Devils River</td>
<td>CR</td>
<td>E</td>
</tr>
<tr>
<td>2314</td>
<td>Rio Grande Above International Dam</td>
<td>CR</td>
<td>H</td>
</tr>
</tbody>
</table>
Impairments on the 2008-10 Texas Water Quality Inventory and 303(d) List

- Bacteria
- Chloride
- TDS

Map showing locations with impairments.
Impairments on the 2008-10 Texas Water Quality Inventory and 303(d) List
Concerns on the 2008-10 Texas Water Quality Inventory and 303(d) List

Orthophosphorus
Total phosphorus
Ammonia
Chlorophyll-a
Nitrate
Total phosphorus
Salinity Study

- Will begin planning phase for salinity special study this fall
- EPCC and UTEP
- Intensive monitoring in the Upper Rio Grande
 Metals Study

- CRP will collect total and dissolved metals at 5 sites in El Paso
- Under TCEQ quality assurance plan
- Use TCEQ metals kits
Pesticides Study

- Pesticides/Organics in sediment analyzed for 3 years from 2007 to 2009 semiannually at all CRP stations
- 23 chemicals tested
- Most stations did not detect any organics
- Upper Rio Grande had 1 station that detected DDE/DDT (Alamo Grade upstream of Ft Hancock) in 2008
- EPWU collects monthly organics in water → no detects
Clean Water Restoration Act
S-787

- Currently in Congress, introduced April 09; June passed committee
- Amends the Federal Water Pollution Control Act (the Clean Water Act) to replace the term "navigable waters" that are subject to such Act with the term "waters of the United States"
Request for Info: Vehicles

- Motorized vehicles prohibited on levee and in river
- Contact local Sheriff's office
CRP Website has changed
www.ibwc.gov/CRP/Index.htm
The USIBWC's Texas Clean Rivers Program is responsible for collecting water quality data throughout the Texas portion of the Rio Grande Basin. The goal of the CRP is to maintain and improve the quality of water within each river basin in Texas through ongoing partnerships with the Texas Commission on Environmental Quality (TCEQ), river authorities, Program Partners, other agencies, regional entities, local and state governments, industry, and citizens. The program uses a watershed management approach to identify and evaluate water quality issues, establish priorities for corrective actions, and work to implement those actions.

**Study Area**
Locate IBWC stream gages, data and other useful maps using the USIBWC GIS Interactive Map Site.

**Monitoring Station Data**
View a list by segment of monitoring stations in the Rio Grande basin. Click on a station ID number to download a text format file that contains all of the available water quality data for that station from 1993 to present.

**Publications**
View Clean Rivers Program Basin Summary Reports.

**Participation**
Learn about the Clean River Program Basin Advisory Committee.

**Calendar / Current Activities**
Learn about upcoming events and current activities of the Clean Rivers Program.

**Partner Links**
Find links to the Clean Rivers Program partners and planning agencies, and links for data and resources.

**Adopt-a-River**
Information about USIBWC's Adopt-a-River program to promote a clean Rio Grande Basin.

**Scientific Research Portal**
Find scientific research being conducted in the Rio Grande Basin.

**Photo Gallery**
See pictures of past CRP events.

**About CRP**
Introduction to the Texas Clean Rivers Program and contact information.
08-4750.00 RIO GRANDE AT EL JARDIN PUMP
Stream Site Description

Location
Latitude 25°52′35″, longitude 97°72′15.01″, Cameron County, Texas, United States.

Description
Drainage area: not available; Contributing drainage area: not available, Datum of gage: 0 feet above sea level.

Cableway, bubbler gage, water-stage recorders (graphic and digital), and DCP with GOES high data rate telemetry located on the left bank at river kilometer 78.3, 0.3 river kilometer downstream from El Jardin pumping plant, and 11.2 river kilometers downstream from the international highway bridge (Gateway) between Brownsville, Texas and Matamoros, Tamaulipas. The zero of the gage is at mean sea level, U. S. C. G. S. datum.

Available Data

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Begin Date</th>
<th>End Date</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real-Time Data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historical Flow Data</td>
<td>1/1/1934</td>
<td>2/28/2007</td>
<td></td>
</tr>
<tr>
<td>Field/Lab Water-Quality Samples</td>
<td>1/24/1995</td>
<td>2/21/2007</td>
<td>3014</td>
</tr>
</tbody>
</table>

Photos, Maps, and Graphs

> Click on an image to view more
The USIBWC Clean Rivers Program
PHOTO GALLERY

Welcome to the Clean Rivers Program Photo Gallery! This page has pictures from past CRP events. Click on the album below to see additional pictures.

CRP Photo Gallery - River Cleanup June 13, 2009

USIBWC CRP hosted a river cleanup event on June 13, 2009 with other organizations, including Individual Owners of the Rio Grande (IORG), Keep El Paso Beautiful, Boy Scouts, and others. The cleanup was located at Courchesne Bridge, at the intersection of Paisano and Aplicado in El Paso, Texas. A total of 37 people participated, and we collected 43 bags of trash, 11 tires, some odd-and-end garbage, and a couch! We had two local television stations cover the event. Thank you to everyone who coordinated and participated in the cleanup.

Photo Gallery
USIBWC’s Adopt-a-River Program

- Community groups adopt a 2-mile section of river for 2 years
- Commit to 2-3 cleanups per year
Adopt-a-River

- Community groups leave trashbags on levee
- IBWC picks up and disposes of trash
- Sign acknowledging group posted
Many sections available for adoption
Contact Liz Verdecchia
2010 Calendars

Please sign sheet if you are interested in a calendar

March

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Did You Know?

The construction of the Anzalduas Dam has resulted in the loss of the alligator snapping turtle and the American eel in the waters of the Rio Grande in the Big Bend region. These are now federally listed as threatened and endangered species. In the Rio Grande, NPS/USFWS, March 2010. (U.S. Fish and Wildlife Service, Southwestern Science Center)
Questions?

USIBWC - CRP
Elizabeth Verdecchia, 915-832-4701
elizabethverdecchia@ibwc.gov
Leslie Grijalva, 915-832-4770
legrijal@ibwc.gov

CRP Website
www.ibwc.gov/CRP/Index.htm