Collect and Evaluate Baseline Information

1. Completed Studies
   - GIS Database of Historic Data/Studies
   - Assessment of Hydrologic Software
   - Supplement Existing Biological Data
   - Analysis of Existing Biological Data
   - Geomorphic Assessment
   - Mussel Survey

2. Ongoing Studies
   - River/Floodplain Interactions
   - Historic FEMA/HEC-RAS X-S
   - Supplement Existing Biological Data

http://www.twdb.state.tx.us/instreamflows
GIS Database of Historical Data
SARA-TX
October 2005

Biology
Hydrology
Water Quality
Physical Habitat
Supplement Existing Biological Data
SARA & TPWD
December 2006

Sample Locations:
19040 San Antonio River at Riverdale crossing
19050 San Antonio River at State Highway 72
19090 Cibolo Creek at FM 389
19070 Cibolo Creek at FM 537
19080 Cibolo Creek at FM 539
19090 San Antonio River at conquistador crossing, downstream of FM 791
19100 San Antonio River at Floresville City Park
19110 San Antonio River at Loop 1504 East near Elmendorf
Analysis of Existing Biological Data

Bonner, TSU
July 2007
Mussel Survey
Karatayev & Burlakova, SFASU
2007
Curran, May 2008

Geomorphic Classification

<table>
<thead>
<tr>
<th>ID</th>
<th>Reach Name</th>
<th>Geomorphic Description</th>
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<tbody>
<tr>
<td></td>
<td>Cibolo Creek Active Sand</td>
<td>The substrate transitions into sand, and the channel is actively migrating. Several meander scars and chutes are present. The valley widens considerably with the transition into the coastal plain region. Heavily undercut banks and gullies occur in every tight bend. There are two oxbow lakes and a stream capture is likely as the reach migrates towards Ecello Creek.</td>
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<tr>
<td></td>
<td>Goliad Sand</td>
<td>Long straight reaches that run perpendicular to the valley, with moderate to tight bends typify this sandy reach. Numerous oxbow lakes and scroll/meander scarring show a history of meander migration. Point bars and undercut banks are typical, and the channel is narrow (&lt; 70 ft wide). There are several small to medium LWD jams.</td>
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Simulation of Streamflow and Estimation of Streamflow Constituent Loads in the San Antonio River Watershed, Bexar County, Texas, 1997–2001

In cooperation with the San Antonio Water System

Water Resources Investigations Report 03–4030

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U.S. Geological Survey