

**Texas Instream Flow Program  
Lower San Antonio River Study Design Workgroup**

**Objectives**

**Overall Objective**

- Determine natural, historic, and current range of parameters associated with each discipline.

<b>Biology</b>
Determine and maintain flows necessary to support: <ul style="list-style-type: none"> <li>• native species and biological communities known to occur in the river and riparian zones</li> <li>• key aquatic habitats</li> </ul>
<b>Hydrology / Hydraulics</b>
Develop a flow regime that sustains ecological processes throughout the system: <ul style="list-style-type: none"> <li>• determine components of the flow regime and their characteristics (frequency, timing, duration, rate of change, magnitude) that support study objectives from other disciplines</li> <li>• determine the natural variability of flow component characteristics</li> <li>• evaluate water losses and gains throughout the system</li> </ul>
<b>Water Quality</b>
Maintain flow in order to sustain water quality to support: <ul style="list-style-type: none"> <li>• biodiversity</li> <li>• economic uses, and</li> <li>• recreational uses</li> </ul>
<b>Geomorphology</b>
Determine and balance the geomorphic effects of different flows, including: <ul style="list-style-type: none"> <li>• channel migration</li> <li>• positive and negative effects of overbank flows</li> <li>• woody-debris dynamics</li> </ul>
<b>Connectivity</b>
<ul style="list-style-type: none"> <li>• Identify the interaction of groundwater and surface water</li> <li>• Evaluate the connectivity of important habitat features of the river and riparian zone that support the basin goal</li> </ul>