## Devils River Basin Hydrologic Assessment

## **Owner:**

The Nature Conservancy P.O. Box 1440 San Antonio, Texas 78295-1440 Mr. Jim Bergan (210) 224-8774

> Client: Same as above

Location: Val Verde County, Texas

Services: Planning, Investigations Hydrogeologic Assessment Hydrologic Assessment

Performance Period: 2003-2004

Project Cost: \$20K

Key Personnel: Craig Pedersen Project Principal and Manager

Grant Snyder, P.G. Senior Hydrogeologist

David Anderson, P.E. Senior Engineer



## **Project Background**

The Devils River is a 3,960-square mile drainage basin located in Val Verde, Crockett, and Sutton Counties in west-central Texas. The baseflow to the river is provided primarily by springflow contributing approximately 252,000 acre-feet of surface water to the Rio Grande Basin downstream near Del Rio, Texas. This river supports a unique eco-system in one of the most pristine and scenic areas in Texas.

The Nature Conservancy has requested that URS to conduct a reconnaissance-level assessment of groundwater resources in the Devils River hydrographic basin; evaluate the source water that supports the many springs providing baseflow to the river; and perform preliminary surface water quality (and related quantity) assessments sufficient for state and federal financing programs. The purpose of the project is to determine the type and amount of research that would be required to delineate the groundwater basin that supports the headwaters springs (near Juno, Texas) and subsequent springs downstream. The Conservancy also requested that URS recommend strategies for conservation measures that may be used to sustain and/ or rejuvenate springflow in areas of historical baseflow to the river. Specific services provided in the investigations were:

- Assessment of groundwater quality and quantity data;
- Identify recharge zone and preliminary delineation of drainage basin;
- Assessment of surface water quality and quantity data;
- Water rights evaluation in the basin;
- Field investigation identifying principal springs in the basin;
- Preliminary planning and cost estimates of alternatives studies; and
- Identification of potential funding resources for resource protection.

Also included in the project is a preliminary assessment of available groundwater and surface water availability models and an estimate of the additional information required to refine those models specific to the Devils River Basin

