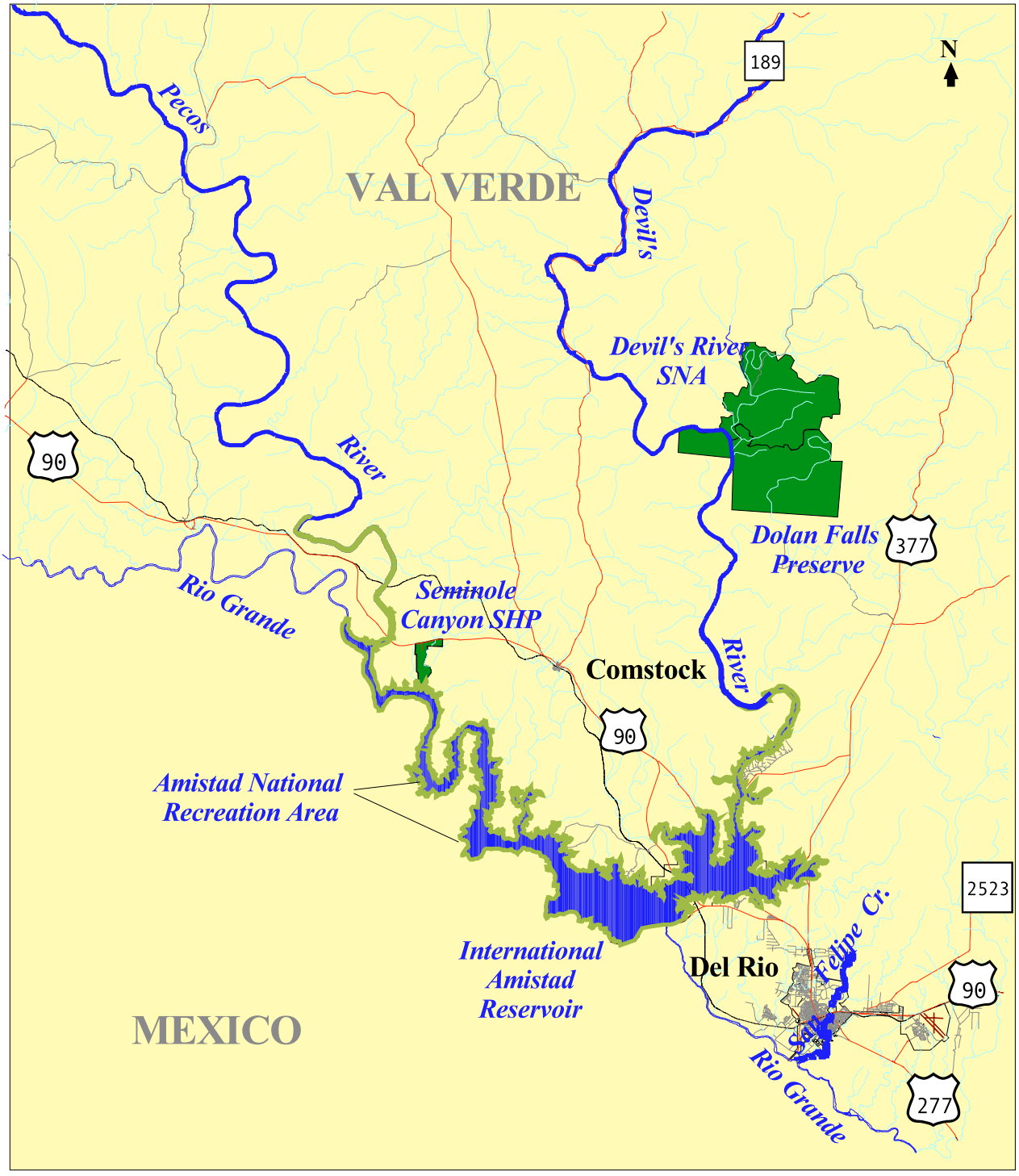

Figure 33. Ecologically significant Pecos River (TNRCC classified stream segment 2310 and part of 2311), Devils River (within TNRCC classified stream segment 2309), and San Felipe Creek (TNRCC classified stream segment 2313) stream segments in Val Verde County (scale: 1 inch = 10 miles; Base map source: TxDOT county files).

Pecos River

The Pecos River rises on the eastern slope of the Santa Fe Mountain Range in Mora County New Mexico. It enters the State of Texas at the state line in Loving County at Red Bluff Lake; meanders in a general southeasterly course approximately 170 miles through a narrow alluvial valley to Sheffield. From this point it continues in a southeasterly course 90 miles through a deep box canyon to its junction with the Rio Grande 10 miles west of Comstock, in Val Verde County. Its principal tributaries are Toyah and Comanche creeks in Texas and Delaware Creek just north of the New Mexico-Texas state line. These creeks are intermittent. The Pecos River is the principal tributary of the lower Rio Grande. There are no power developments along the stream in Texas, but considerable water is diverted near Pecos and Grandfalls for irrigation[24]. The significant stream segment on the Pecos River is within the Trans Pecos (Chihuahuan Desert) ecoregion. It begins at Val Verde/Crockett County line downstream to a point 0.4 miles downstream of the confluence with Painted Canyon in Val Verde County (Fig. 33). The ecological significance of this segment is based upon the following criteria:

1. Biological function – The aquatic and riparian habitats associated with the river (Figs. 34&35) support a diverse assemblage of invertebrates, reptiles, fish, birds, and plants. The three ecological zones mentioned in the Devil's River account also overlap along this segment of the Pecos River. Riparian gallery forests include salt cedar, oaks, willows, huisache, baccharis and many other brush species.

2. Hydrologic function – The Pecos River runs into the upper end of International Amistad Reservoir. The riparian habitats along the segment help filter runoff, attenuate peak flood flows, and regulate baseflow.

3. Riparian conservation area – Amistad National Recreation Area (NPS) extends up the river from the Rio Grande to Shumla Bend just downstream from the confluence with Painted Canyon. Seminole Canyon State Historic Park, though not on the Pecos River, fronts Amistad Reservoir just below the confluence of the Pecos with the Rio Grande (Fig. 36). Both of these sites have been nominated for inclusion in the Heart of Texas Wildlife Trail.

4. High water quality/exceptional aquatic life/high aesthetic value – This segment has exceptional aesthetic value including spectacular limestone canyon formations. Many rock shelters and a few caves contain burned rock middens, pictographs, and petroglyphs[14].

5. Threatened or endangered species/unique communities – The following rare species associated with aquatic or riparian habitats may occur in or along this segment: The Black-capped vireo (Fed.E,St.E), Interior least tern (Fed.E, St.E), and Zone-tailed hawk (St.T), all use riparian habitats for nesting. The Rio Grande darter (St.T)[10], and Proserpine shiner (St.T)[10,11]; the Indigo snake (St.T) and Big Bend blackhead snake (St.T) are found in riparian and/or aquatic habitats in this region.

Figure 34. Pecos River confluence with the Rio Grande from US 90 high bridge in Val Verde County (11/21/00).

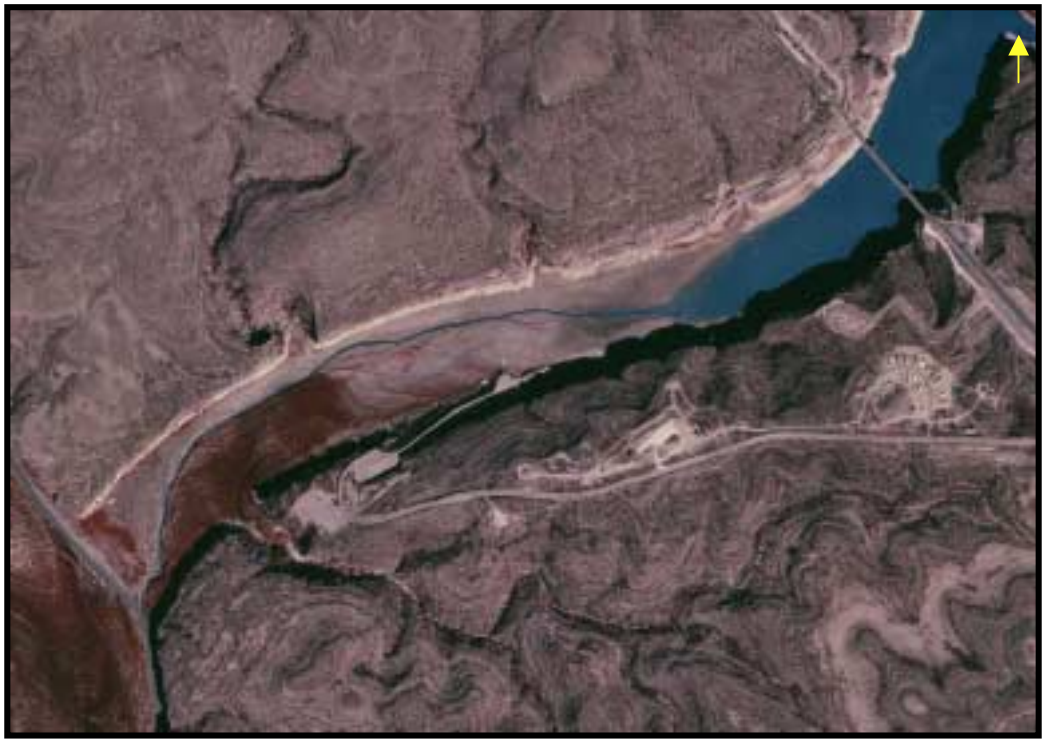

Figure 35. Pecos River confluence with the Rio Grande. Note the expansion of riparian brush (mostly salt cedar) apparent in the photo in Fig. 34. Source: Seminole Canyon DOQ, 1995, 1 m CIR.

Figure 36. Seminole Canyon SHP. Note the riparian habitat and seepage pools in the canyon (11/21/00).