



Figure 30. Ecologically significant Nueces River (within TNRCC classified stream segment 2112) and Frio River (within TNRCC classified stream segment 2113) segments in Real County (Scale: 1 inch = 5 miles; Base map source: TxDOT County files).

Nueces River

The Nueces River rises about five miles southeast of the town of Rocksprings, in east-central Edwards County. Devil's Sinkhole SNA, a registered National Natural Landmark, is located near the headwaters (see Fig. 1). The river flows for over 300 miles and terminates in Nueces Bay at Corpus Christi. The selected segment runs from the Real/Edwards/Uvalde County line upstream to the confluence of the East Prong Nueces River and Hackberry Creek in Edwards County (Fig. 30). The ecological significance of this segment is based upon the following criteria:

1. Biological function – The aquatic and riparian habitats (Fig. 31) associated with the stream support an exceptionally diverse assemblage of invertebrates, fish, birds, and plants characteristic of the Edwards Plateau ecoregion. The riparian gallery forests are dominated by bald cypress, sycamore, pecan, and willows. Canyon slopes are dominated by plateau live oak and Ashe juniper. These woodlands provide important nesting, migration, and wintering habitat for a variety of birds.
2. Hydrologic function – The entire drainage basin of the Upper Nueces River in Real and Edwards Counties is within the Edwards Aquifer Drainage Area. The river crosses the Edwards Aquifer recharge zone in western Uvalde County. The flows of this segment are eventually impounded by Lake Corpus Christi. The Nueces

River flows into Nueces Bay contributing freshwater inflow to one of the state's major estuaries. The fringing riparian habitats of the river function to improve the quality of runoff and groundwater discharge into the river, attenuate peak flood flows, and to some extent, stabilize base flows.

3. Riparian conservation area – Devil's Sinkhole SNA, although not on the selected segment, is located in the headwaters area of the Nueces River. The Sinkhole is 350 – 400 feet deep and reaches below the water table of the Edwards-Trinity (Plateau) Aquifer. The freshwater lakes around the perimeter of the cave support two unique crustaceans; the endemic Devil's Sinkhole amphipod and a rare aquatic isopod. If the water table is lowered in this area, these organisms would become threatened.
4. High water quality/exceptional aquatic life/high aesthetic value – The spring-fed Upper Nueces River has exceptional aesthetic value, very high quality water and is canoeable in all seasons. The river has numerous rapids and some geologic oddities such as "pinball rapids"¹⁴. The segment has been recommended for inclusion in the proposed Texas Natural Rivers System.
5. Threatened or endangered species/unique communities – The following rare species associated with aquatic or riparian habitats occur in or along this segment: the Golden-cheeked warbler (Fed.E, St.E), Black-capped vireo (Fed.E, St.E), and Zone-tailed hawk (St.T) nest in riparian and canyon-side woodlands, although they are not restricted to these habitats; the Interior least tern (Fed.E, St.E) occurs in the county although it is not known to nest along the Nueces River; the Proserpine shiner (St.T); Indigo snake (St.T); the Tobusch fishhook cactus (Fed.E, St.E) occurs in the county, and is occasionally found in gravel along creek bottoms, and Texas snowbells (Fed.E, St.E)¹⁵ which is known from about 20 populations in Edwards, Real, and Val Verde Counties.



Figure 31. The Nueces River at SH 55 bridge south of Camp Wood (11/20/00).