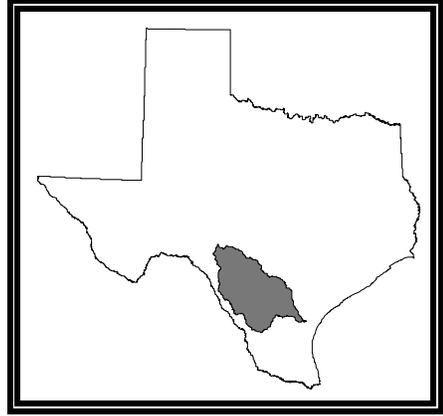


Basin 21

Nueces River



Nueces River Basin Narrative Summary

The Nueces River originates in Edwards County and flows approximately 315 miles to Nueces Bay in the Gulf of Mexico near Corpus Christi. The total basin drainage area is 16,950 square miles. Principal tributaries to the Nueces include the Atascosa River, the Frio River, and its tributaries (San Miguel Creek, Hondo Creek, Sabinal River and Leona River). The Atascosa and Frio Rivers join the Nueces River above Lake Corpus Christi. The economy of the basin is based on agricultural and mineral production. The Nueces River Basin contains the extensively irrigated agriculture area near Crystal City known as the Winter Garden.

For monitoring purposes, the Nueces River Basin has been divided into 17 classified segments, consisting of 1,088 stream miles, and two major reservoirs covering 47,900 surface acres for the 2002 assessment. No unclassified water bodies were assessed in the basin.

Water quality in the upper portion of the basin in the less inhabited reaches is relatively good. There are three water bodies which are included on the 2002 list of impaired waters. The Lower Sabinal River (segment 2110) is listed for non-support of the drinking water criteria for nitrate-nitrite nitrogen. Choke Canyon Reservoir is non meeting the general use criteria for total dissolved solids (TDS). This is due in part to increasingly dry conditions in the basin resulting in a lowering of the reservoir through evaporation, thereby causing an increase in TDS. Elevated fecal coliform densities are also causing the Frio River above Choke Canyon Reservoir to not meet its contact recreation use.

A substantial part of the flow of the Nueces River and its tributaries enters the fractured and cavernous limestone formation of the Edwards Aquifer Balcones Fault Zone. As a result, stream flows in the Nueces River Basin downstream from the recharge zone consist almost entirely of stormwater. During low-flow conditions, chloride, sulfate, and total dissolved solid levels increase due to natural and man-made activities.