

1.10.10 White Oak Creek

White Oak Creek begins about five miles southwest of Newton and flows southeasterly 12 miles into Big Cow Creek in Newton County. The creek lies within the Sabine River Basin and has a drainage basin of 119 square kilometers (46 square miles) (Bayer et al. 1992). The creek meanders through a riparian corridor dominated by box elder (*Acer negundo*), water oak (*Quercus nigra*), sweetgum (*Liquidambar styraciflua*), river birch (*Betula nigra*), and bald cypress (*Taxodium distichum*) and contains several well-developed bends. The substrate of the stream at FM 363 was composed primarily of silty sand and flow occurred primarily in deep pools and runs. Abundant instream cover was provided by fallen logs, undercut banks, root snags, bald cypress knees, and overhanging vegetation. Bayer et al. (1992) reported collecting 20 fish species, including several species intolerant of degradation, from White Oak Creek at FM 363 east of Blackwood in central Newton County (Appendix C). The ecologically significant stream segment is from the confluence with Big Cow Creek in Newton County to its headwaters located about five miles southwest of Newton in Newton County.

- **High water quality/exceptional aquatic life/high aesthetic value-** identified as a South Central Plains ecoregion least impacted reference stream for diversity of benthic macroinvertebrates (Bayer et al. 1992).



Figure 34. White Oak Creek at FM 363 in Newton County (8/14/01).