

Section 4

Conclusions

Stream and river segments located within the Brazos G RWPA were investigated for ecological value and probability of subsequent designation as ecologically unique according to the regional water planning guidelines (31 TAC, Section 357.8). Such areas may be included in the Regional Water Plan and recommended by the Brazos G Regional Water Planning Group for consideration by the Texas Water Development Board and Texas Legislature for formal designation as ecologically unique stream and river segments.

This study used resource planning information and guidance provided by the Texas Parks and Wildlife Department, the U.S. Army Corps of Engineers, Texas Water Development Board, and Brazos River Authority. This information was supplemented by evaluation of both historical and recently acquired Landsat imagery, measurement of specific components of habitat value for selected candidate sites, and limited field evaluations to identify and investigate potential candidate stream segments.

A total of 19 stream segments were identified which meet criteria for at least one or more categories listed in the regional water planning guidelines for designation as ecologically unique. Of this total, 10 segments met the criteria for biological function, four qualified for hydrologic function, five met criteria for riparian conservation areas, nine qualified for designation as high water quality/exceptional aquatic life/high aesthetic value and four qualified according to the occurrence of threatened/endangered species or unique communities. Ten of the candidate sites qualified in more than one category, while three sites met criteria in at least three different categories. No single river or stream segment met all five categories.

Because each of these 19 stream and river segments met an established level of one or more criteria for ecological significance, they should be considered sensitive and regarded as potential constraints in future water planning. Development projects identified to satisfy future water demand should carefully investigate potential impacts to these areas. In the event impacts are unavoidable, state and federal agencies responsible for approving and permitting the projects will decide if such impacts can be adequately mitigated and what the mitigation measures will be. Such mitigation measures could significantly affect overall project costs. Stream and river segments designated by the Texas Legislature as ecologically unique will be protected by land development restrictions. Such restrictions will include prohibition by any state agency or political subdivision from acquiring fee title acquisition or easements that would destroy the unique ecological value of the designated segment.