

## Land Use/Land Cover

Historical land cover in the North Bosque watershed was characteristic of the Oak Forest and Prairies Vegetative Regions of Texas. Prairie grasses were typically little bluestem, big bluestem, switchgrass, Indian grass, side-oats grama, hairy grama, Canada wild-rye, tall dropseed and Texas wintergrass. The Oak Forests of the Eastern Cross Timbers were oak savannahs with dense brush of post oak and blackjack oak. Riparian areas throughout this region supported hackberry, elm, and native pecan trees.

With the arrival of settlers from the East, agriculture transformed the traditional land cover throughout the region. Widespread farming began in the mid-19<sup>th</sup> century as settlers plowed the prairie soils and planted their crops. The areas of the upper North Bosque Watershed have long been used in animal production agriculture, including ranching and dairy operations.

Poor agricultural practices were highly detrimental to the thin soils of the Grand Prairie, and erosion was rampant throughout the early period of agriculture. As farms in the region became less productive, farmers simply moved west and settled the seemingly endless supply of virgin prairie soils. This practice continued into the early 1900's until the long droughts and dust-bowl conditions made people realize that limited soil resources were being wasted. In the latter-half of the 20<sup>th</sup> century, farming techniques improved and soil erosion has been significantly reduced. However, it still remains one of the chief concerns of agricultural interests in the watershed.

Another land cover concern among farmers in the watershed is the encroachment of invasive, non-native brush species on abandoned farmland and pastures which threaten limited water supplies. The USDA-NRCS estimates that brush in Texas uses about 10 million acre-feet of water per year compared with 15 million acre-feet per year for current human use. Fire suppression has allowed the brush to become established in traditional grassland areas, while overgrazing has limited the grasses ability to restrain tree seedling establishment. Possible benefits of brush control affecting water supplies include: additions to State water supplies, recharge of groundwater aquifers, and spring flow enhancement.

Current land use/land cover in the North Bosque Watershed reflects the diversity of the region's landscape and includes cropland, pasture, forest, rangeland, and urban areas.