Loss of Agricultural Lands

Texas Land Trends

Introduction

Texas leads the nation in land area devoted to privately-owned farms, ranches and forestlands. Over the past several years, the state has also led the nation in total population growth. For obvious reasons, the rate at which rural agricultural land is converted to other uses is often tightly related to local population change. This overview provides a summary of that relationship in Texas.

Recent Trends

Population Change. Between 1997 and 2007, Texas had a total net gain of 4,290,847 new residents – this was an increase of 22%. Population gains were realized across 197 counties resulting in 4,320,127 new residents – losses were realized across 56 counties with a loss of 29,280 residents. Over 85% of this population expansion occurred in only 25 counties, accounting for about 10% of the state's land area. These high-growth counties are clustered around the state's major metropolitan areas.

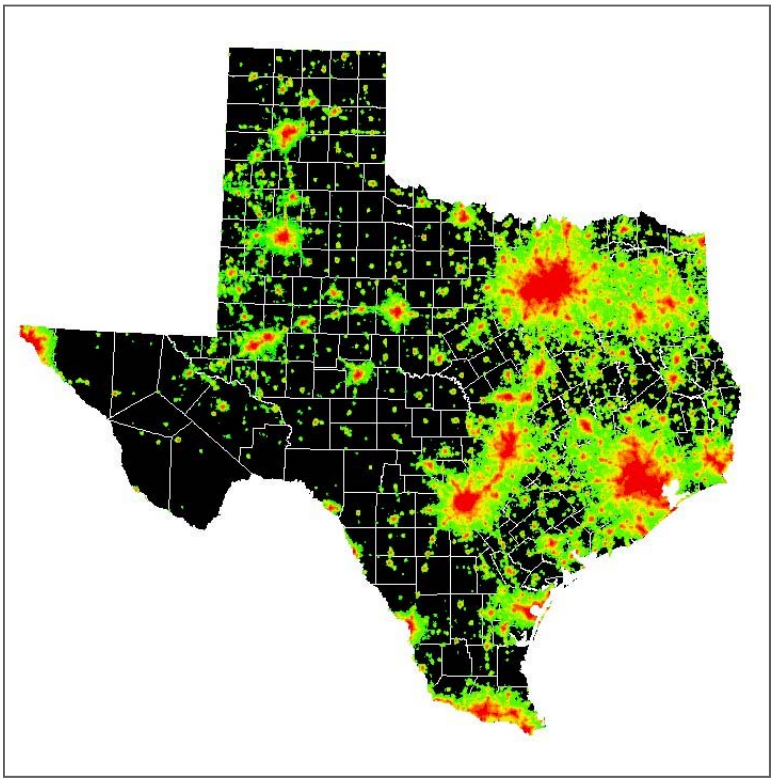

Figure 1. Texas' Population density as reflected in nighttime illumination (Data Source: National Geophysical Data Center, 2003).

Loss of Agricultural Lands. Losses in agricultural lands were recorded in 156 counties, resulting in a loss of 2,140,317 acres that were on record in 1997. There were also gains recorded in agricultural lands for 97 counties, resulting in an addition of 618,781 acres of farms, ranches and forestlands that were not recorded in 1997. With these reported losses and gains, Texas had a total net decrease of 1,521,536 acres of agricultural lands from 1997 to 2007. In general, this loss was related to population changes, with this relationship being strongest in those counties experiencing the highest growth rates.

- Over the 10-year period, the 11 counties with population gains exceeding 100,000 lost an average of 48,394 acres each.
- The top 25 high-growth counties accumulated a loss of 861,765 acres of agricultural lands as population increased by 3.6 million. While accounting for 84% of the state's increase in population over 10% of the state's land area, these 25 counties represented about 40% of the loss of agricultural lands.

- Expanding the calculations to the top 50 high-growth counties gives a more complete picture of the relationship. These counties lost an accumulated 1,084,566 acres while increasing in population by 4,017,765 residents. These counties accounted for 93% of the state's population growth, while experiencing 50% of the decline in agricultural lands.
- Overall, this amounts to a per capita loss of about 270 acres for each 1,000 new residents added to the population. The other 50% of the state's lost agricultural lands are not directly related to localized (county-level) increases in population. However, there may be other factors related to population increase that might have a role in land conversion in the remainder of the state.

Future Projections

According to population forecasts, Texas will add another 6.5 million to its population over the next 12 years. By 2020, the state's population is projected to total 30.25 million. The most current forecasts indicate the pattern of this growth will be more concentrated than it was over the last decade, with the 25 fastest growing counties likely to absorb almost 90% of the population growth. If land consumption rates continue as they have over the past decade, population growth in the 25 high growth counties will contribute to another 1.37 million acres of agricultural lands being lost by 2020. This loss represents an area equivalent to the size of Travis, Bexar, and Rockwall counties combined.

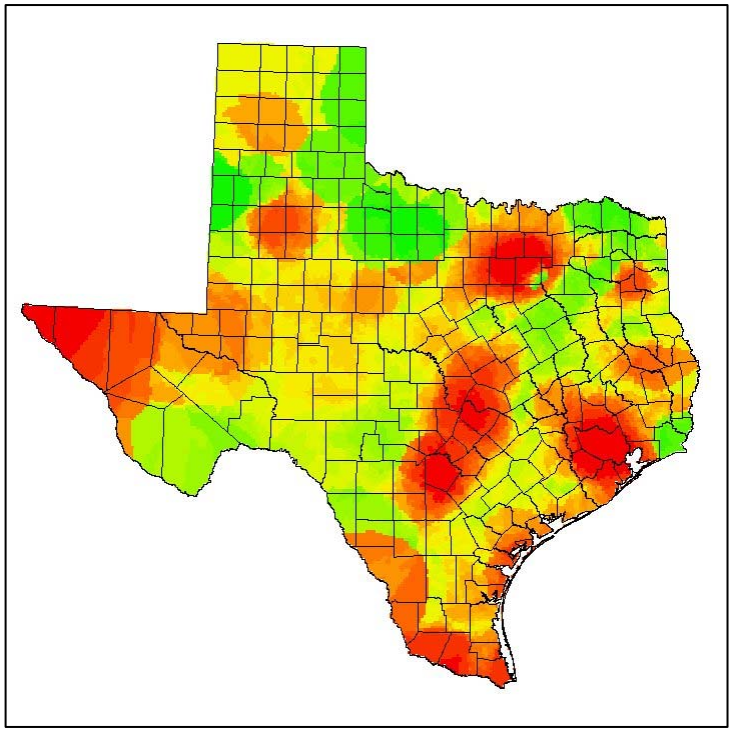

Figure 2. Loss of farms, ranches, and forestlands in Texas, 1997 to 2007. Red areas indicate areas of relatively high land conversion from agriculture to other land uses (Raw Data Source: Texas State Comptroller of Public Accounts).

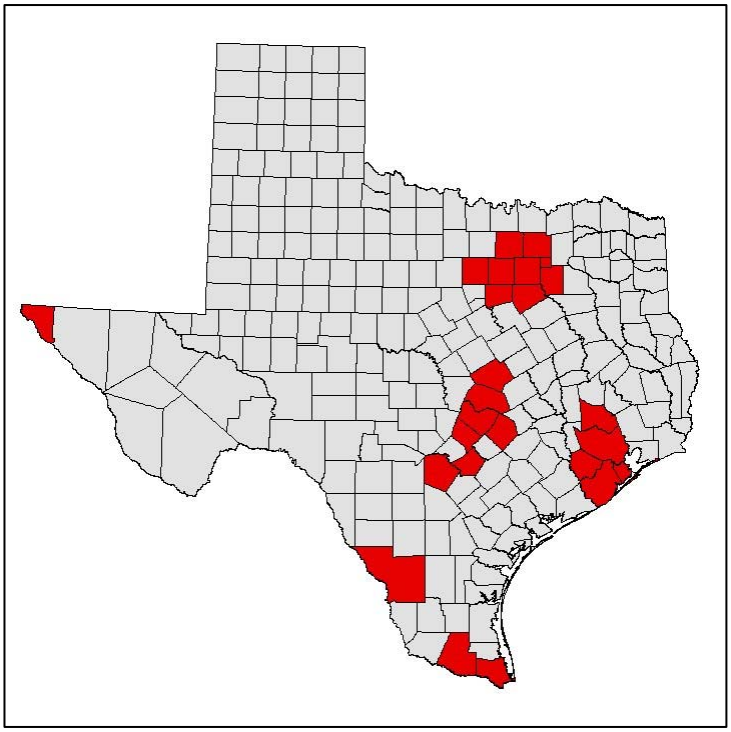

Figure 3. Texas' top 25 growth counties in terms of absolute population change, 1997 to 2007. Data Source: US Census, and Texas State Demographer's office.

[1] For this report, we use the "2000-2004 Migration Scenario" which is a projection that takes into account population trends occurring since the 2000 census. This is the most recent detailed projection of likely future population size and characteristics available from the Texas State Data Center and Office of the State Demographer.