

Background

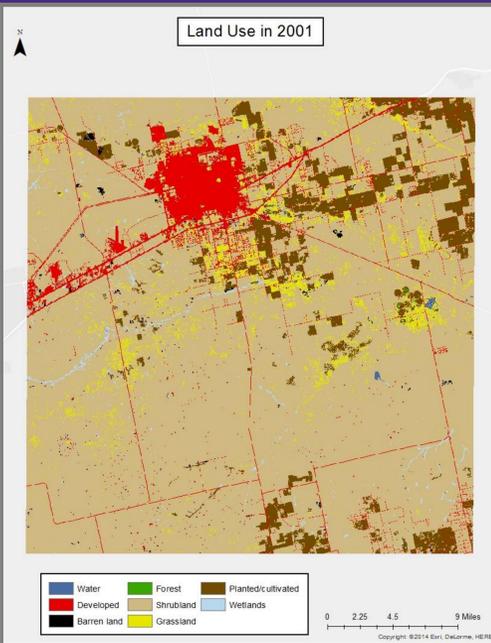
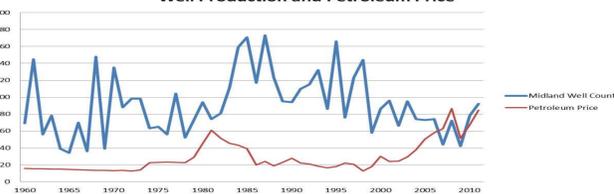
Midland is a city on the Southwestern plains of Texas. It is a city within Midland County as well. Midland is a city synonymous with oil production, gas drilling and the energy industry. The city was established in 1881 as a midway station from the eastern portion of Texas to the Pacific Railway. Midland was forever changed when oil was discovered in the Permian Basin in 1923. It then became the administrative center of West Texas oil fields. A major oil boom occurred during the mid-1970s with high oil prices associated with the oil and energy crises of the decade. Tens of thousands of people moved to the area in search of jobs and profits. The boom ended suddenly in 1982, when the price of oil unexpectedly fell and the drilling rig count dropped almost 50 percent. Thousands of jobs were lost and many people that had been associated with Midland drilling efforts lost their jobs and had to find new sources of labor. Low oil prices kept Midland from righting its economy until the mid-90s. A recent oil and gas boom has now restored the city of Midland, Midland County, and the Midland basin as the major drilling hub of the West.

Purpose

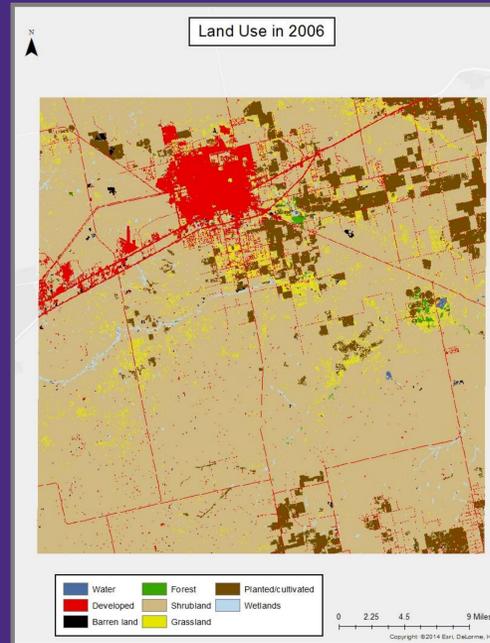
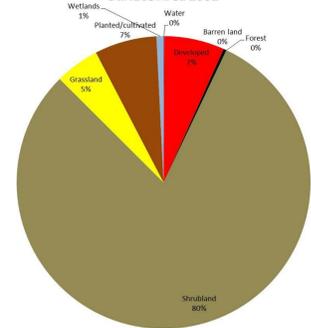
The purpose of my study is to analyze the city of Midland and its relation to the Midland oil basin. I focus on population change, oil and gas prices, rig count, and land use development all within the time table from before the 1970s oil boom to present day.



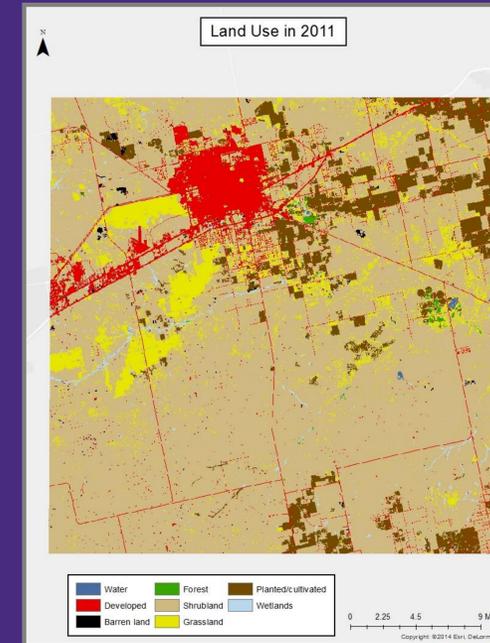
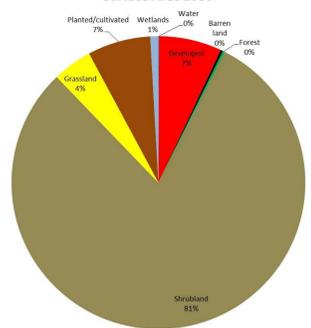
Well Production and Petroleum Price



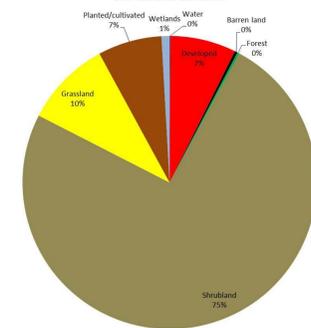
Surface Area 2001



Surface Area 2006



Surface Area 2011



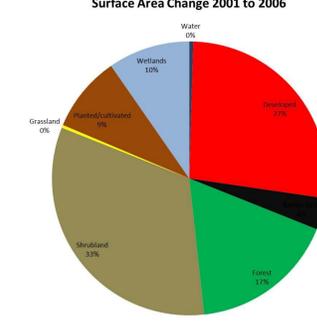
Findings and Conclusions

County land use is mapped in order to view the areas that have been changing over the last decade. The map of land use change from 2001 to 2006 shows steady growth in most surface area variables. There is a much greater land use change from 2006 to 2011. 84% of all growth is in grasslands and 12% in urban development. The grasslands are not subject to management, which means these areas have had large amounts of vegetation growth since 2006. They are also areas that have been experiencing very little drilling affects. The largest amounts of urban development and grassland growth are occurring west along Interstate 20 near Odessa.

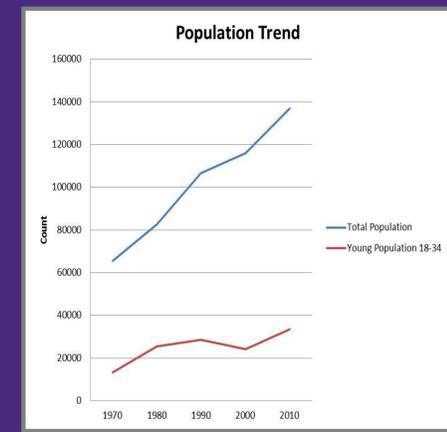
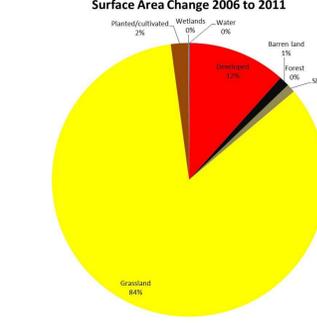
Many young people who were not able to find jobs in the 1980s and 1990s are now returning with the latest oil and gas boom. Population is rising as well as well counts and petroleum prices which will require the city to expand. The urban development and grassland increase west of the city center between 2006 and 2011 shows a potential area for expansion. Midland will most likely expand west towards Odessa because the other areas surrounding the city are too crowded with drilling sites. Midland has changed its own geography by choosing to drill around the community. The city may not be in the best spot for further expansion because the area experiences large population growth over small periods of time when the drilling booms occur. This research suggests that the amounts of drilling in the areas of grassland and urban development have slowed since 2006 in order to plan future city growth as a result of the present oil boom.



Surface Area Change 2001 to 2006



Surface Area Change 2006 to 2011



References

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- "Multi-Resolution Land Characteristics Consortium (MRLC)." Multi-Resolution Land Characteristics Consortium (MRLC). Accessed April 17, 2014. <http://www.mrlc.gov/>.
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