Luke Snell
GIS in Water Resources
Term Project Proposal
9/24/15

The changes that accompany the continued growth of Austin, TX will place increased stresses both on natural resources as well as on city residents who must respond to those changes. A quick search of 2010 census data compiled by the City of Austin reveals increases in median home value by zip code on the order of 20% to 200% (while one zip code had a 37% decrease in median home value). The same search revealed an increase in the number of housing units in every zip code in the city. At the same time, the affordability of many zip codes in the city is decreasing. While economic growth is generally accepted as something good, I would like to explore the fact that not all segments of the population share in those benefits equally.

I am interested in exploring the intersection of the socio-economic and demographic changes associated with these trends. Some questions that I have in mind are:

**How has the socio-economic landscape of the city's residents changed?** I intend to prepare maps with categories of median home value, median rent, population below poverty line, ethnic background and/or median household income that illustrate changes in these categories over time at the block, block group, or zip code level. These maps will cover time periods of the past 10 and 20 years. I intend to gather this information from the US census. I will also try to adjust this information for inflation. The exact categories to be examined are to yet be determined.

**How have property taxes in Austin changed in the past 10 and 20 years?** This question is of interest for homeowners who my not be able to absorb property tax increases into their yearly budgets and may thus be forced to sell their homes. The city of Austin has appraisal and property tax information by address. I am going to try to find a central data source for this information instead of having to search by individual addresses

**How has land use changed in Austin in the past twenty years?** I will create a map that shows how land use in the greater Austin metropolitan area has changed in the past twenty years to aid in visualizing and quantifying the impacts of population have had in terms of land use. For this, I plan on using the National Land Cover Change dataset. It may be possible to demonstrate how increased land use may increase flood risk as a result of decrease in permeable land cover.