Planning for Development

in Greater Austin (2031)

For over a decade, the Greater Austin region has been the fastest growing metro area in the nation. As climate change continues to threaten Greater Austin with longer, hotter, and drier summers, it is imperative that Austin regional planners prioritize the region's natural resources while ensuring that development occurs safely. We created a model to do just that.

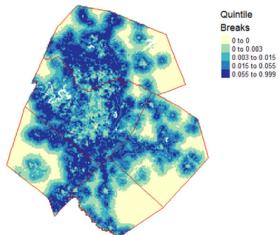
To create the model, we made the following assumptions: development is attracted to existing development and development demand is predicated on accessibility. We also assume that existing land cover also influences development choice and explore the impact of the percentage land cover of different types like wetlands, farmland and forests.

We modeled two scenarios of how development may occur in 2031: 1) business-as-usual (BAU) 2) New Highways.

Scenario 1: Business-As-Usual

This scenario asks, based on 2011-2021 land cover and development patterns, what would development demand in Greater Austin look like in 2031?

Development Demand 2031 Predictions

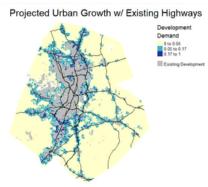


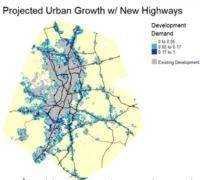
The map (above) was predicts where development may occur in 2031 based on features like distance to a highway or dense population centers. Notice how development tends to follow Greater Austin's interstate highways.

A Closer Look?

(maps right) We identified Williamson County as the county that will experience the highest mean development demand by 2031 as well as a considerable population increase. Based on the development potential map (top) and projected population map (bottom), development is suitable and most desirable in the dark blue areas.

Scenario 2: New Highways





(maps above) This scenario explores how the construction of new transportation channels in the southern region of the Austin MSA would impact the predicted development in the next decade. New highways improve the accessibility of the regions near them. This is enough to increase the probability of new development around existing development like Wimberly Village in the example above.

The model predicts 19 cells would be developed on top of business-as-usual, as a result of the proposed highways. The model does not account for how useful a highway is so careful planning is still needed to determine what effect large infrastructure projects might have on development.

might have on development. Development Demand Development Potential, 2031: Williamson 0.000 0.000 0.002 0.013 0.051 Land_Use Developed Projected Population, 2031: Williamson Not Suitable Population Change -71.2