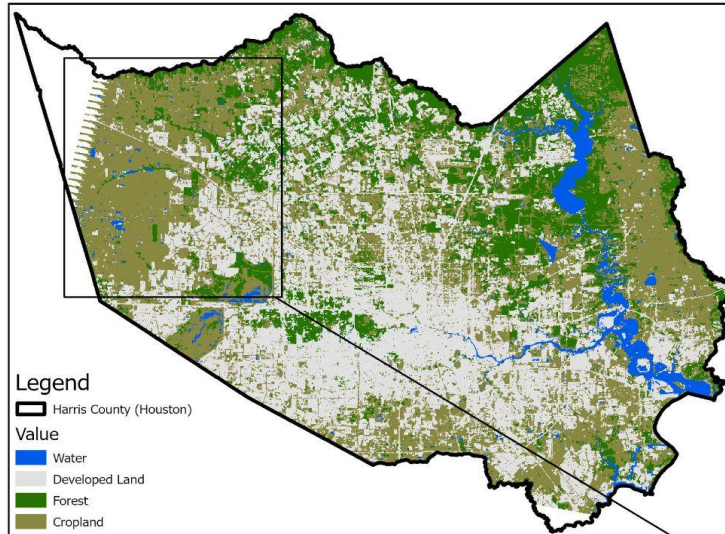


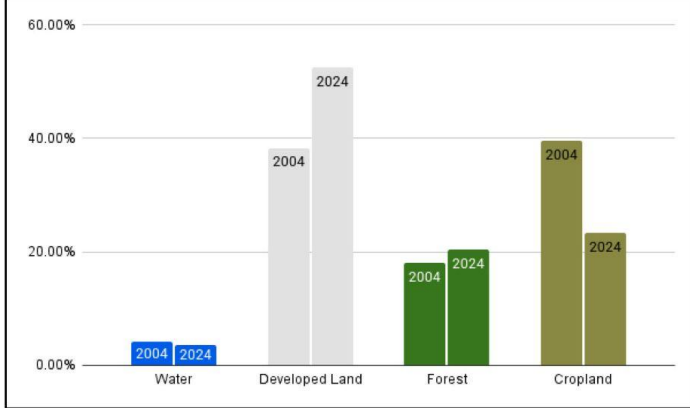


Land Use Change Over 20 Years: Houston, Texas 2004 to 2024

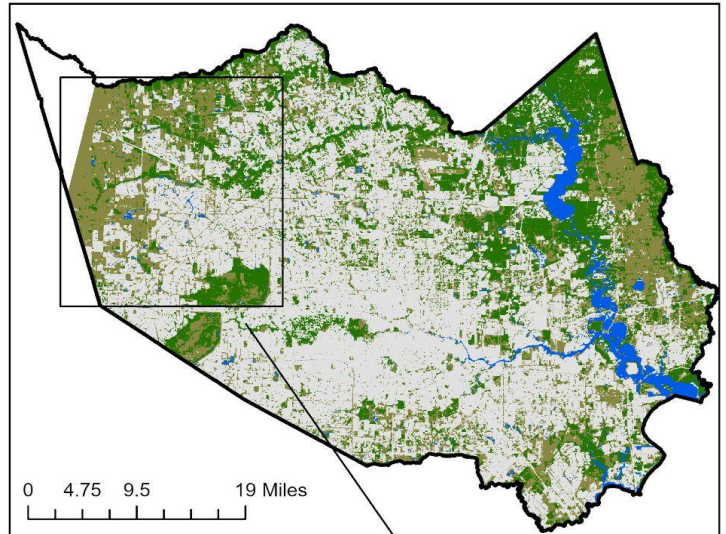
By Alyson Newsome



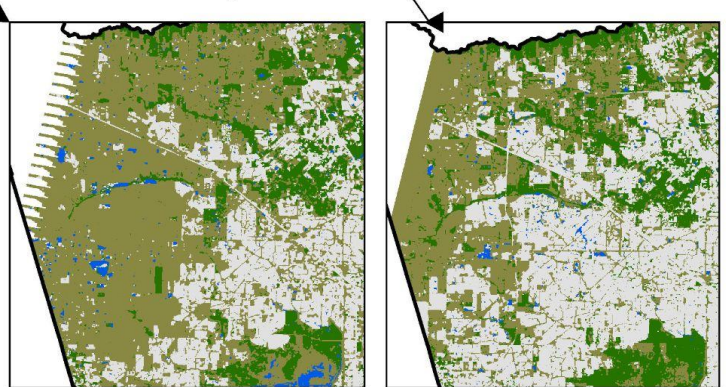
Houston, Texas: 2004



Changes in percentage of land use category: Houston, TX 2004-2024



Houston, Texas: 2024



Area of most significant section of conversion from cropland to developed land in Houston, TX

A paragraph/list (200 words maximum) explaining how you classified your map and why, what projection you used and why, and any additional elements you added to the map.

I classified land use change in Houston using Landsat images from 2004 and 2024, clipped to Harris County. I chose the WGS 1984 UTM Zone 15N projection because it centers Houston in the map. Following the tutorial, I used unsupervised classification, starting with 20 classes and refining them into four (water, developed land, forest, and cropland) by comparing classified pixels to the base map.

I kept only four classifications to simplify interpretation and focus on Houston's urbanization trends. While the tutorial used pink for developed land, yellow for cropland, green for forest, and blue for water, I adjusted the colors in my final layout for better clarity (gray: developed, light brown: cropland, green: forest, blue: water), making the map more intuitive even without relying on the legend.

To better represent the maps' data, I calculated the percentage of each land type for both years and included a bar chart showing the changes. This data revealed a sharp decline in cropland, indicating Houston's urban expansion primarily replaced farming. I also added zoomed-in sub-maps highlighting an area where a significant amount of cropland was converted to developed land between 2004 and 2024, visually reinforcing the trend.

Word Count: 194

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