Pontchartrain Basin Land Cover Study Mason Maurer

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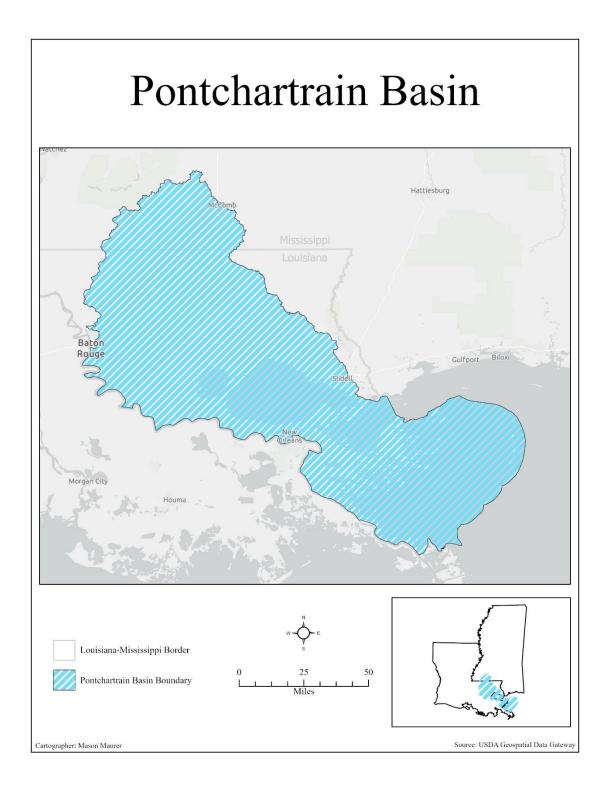


Figure 1 - Overview of the Pontchartrain Basin, located in southeastern Louisiana and southern Mississippi. The basin is made up of the following HUC-8 watersheds: Amite, Eastern Louisiana Coastal, Lake Maurepas, Lake Pontchartrain, Liberty Bayou-Tchefuncte, Tangipahoa, and Tickfaw. The basin is shown in light blue stripes and the Louisiana-Mississippi state border is delineated in light gray.

Change in Developed Area Pontchartrain Basin

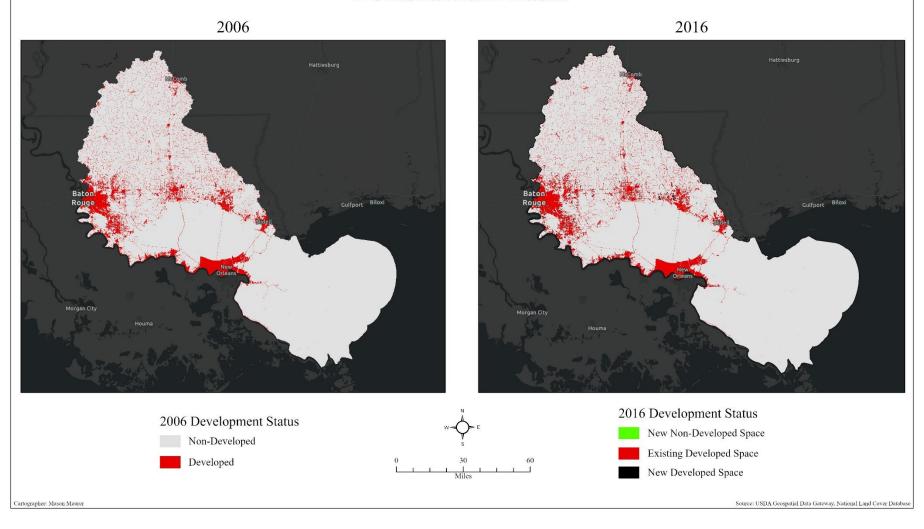


Figure 2 – Map showing the change in developed land cover area in the Pontchartrain Basin from 2006 to 2016. Developed space is shown in red and non-developed space is shown in light gray. For the 2016 map, newly developed space is shown in black, existing developed space is shown in red, and new non-developed space is shown in green. The following NLCD landcover classes were combined to show developed areas: Developed – Open Space, Developed – Low Intensity, Developed – Medium Intensity, and Developed – High Intensity.

Land Cover Type	Class Value	Description
Developed – Open Space	21	Areas with a mixture of some constructed materials, but mostly vegetation in the form of lawn grasses. Impervious surfaces account for less than 20% of total cover. These areas most commonly include large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes.
Developed – Low Intensity	22	Areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 20% to 49% percent of total cover. These areas most commonly include single-family housing units.
Developed – Medium Intensity	23	Areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 50% to 79% of the total cover. These areas most commonly include single-family housing units.
Developed – High Intensity	24	Highly developed areas where people reside or work in high numbers. Examples include apartment complexes, row houses and commercial/industrial. Impervious surfaces account for 80% to 100% of the total cover.

Figure 3 - Table showing a description for the land cover classes used in this study. Source: Multi-Resolution Land Characteristics Consortium

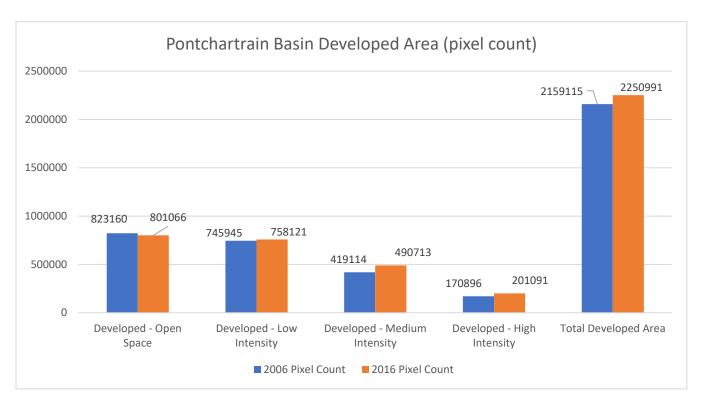


Figure 4 - Bar chart showing the total 30x30 meter pixel counts for developed area in the Pontchartrain Basin in 2006 and 2016.

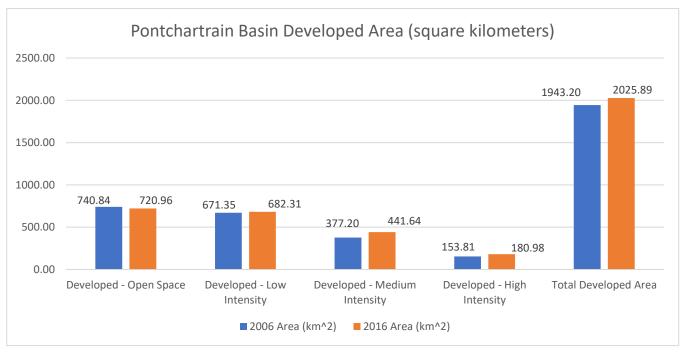


Figure 5 - Bar chart showing the total area of developed space in the Pontchartrain Basin in 2006 and 2016.

The changes in square kilometers of developed area between 2006 and 2016 are as follows: 2.68% decrease for Open Space, 1.63% increase for Low Intensity, 17.08% increase for Medium Intensity, 17.63% increase for High Intensity, and 4.26% increase for Total Developed Area.

The classes that saw the greatest percent increase in developed areas were the Medium Intensity and High Intensity classes. Since these classes commonly consist of single-family housing units, it is reasonable to assume that the cause for this change is connected to an increase in the construction of single-family housing units within the Pontchartrain Basin between 2006 and 2016.