

# Water Quality in Two Tallahassee Lakes

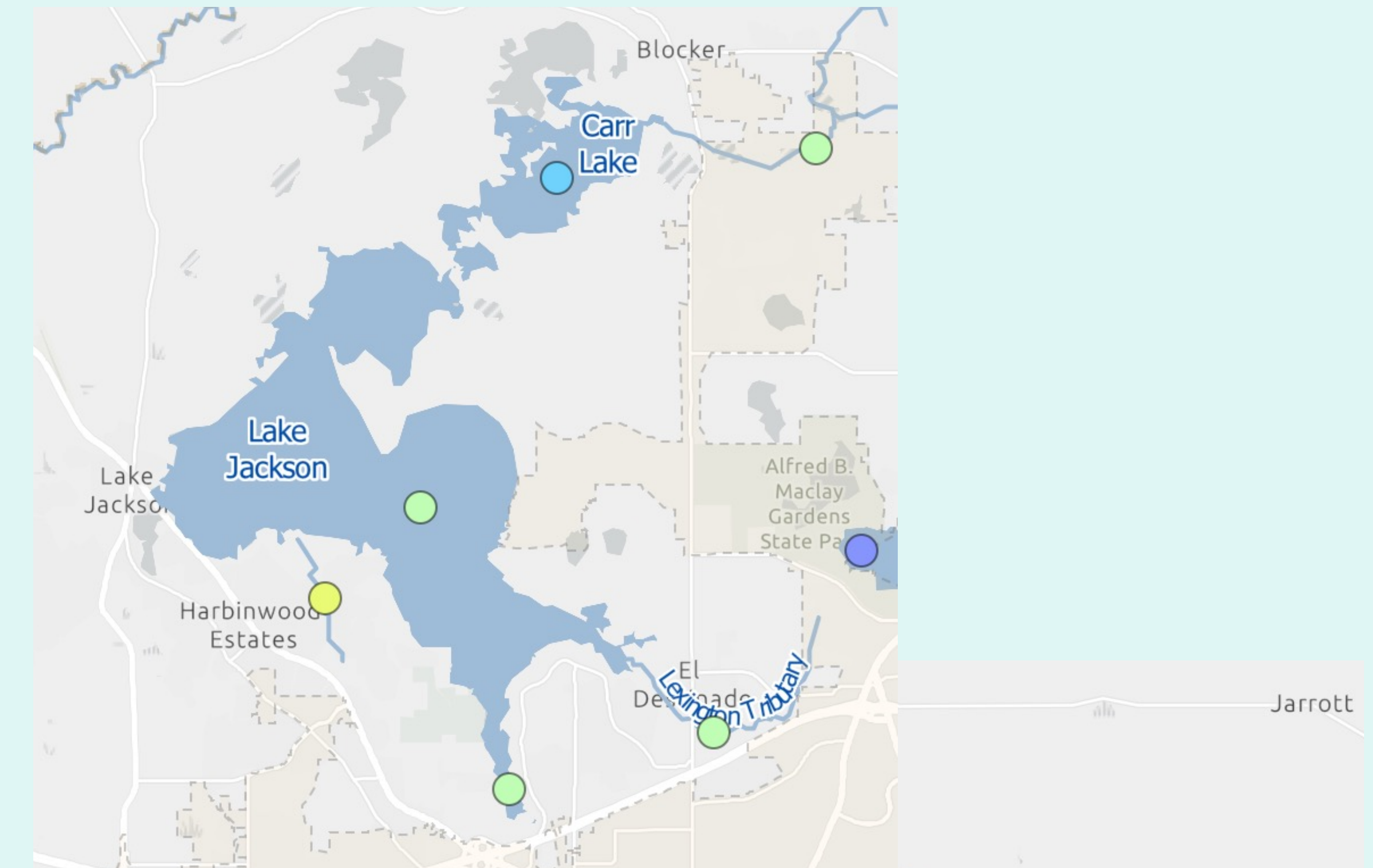
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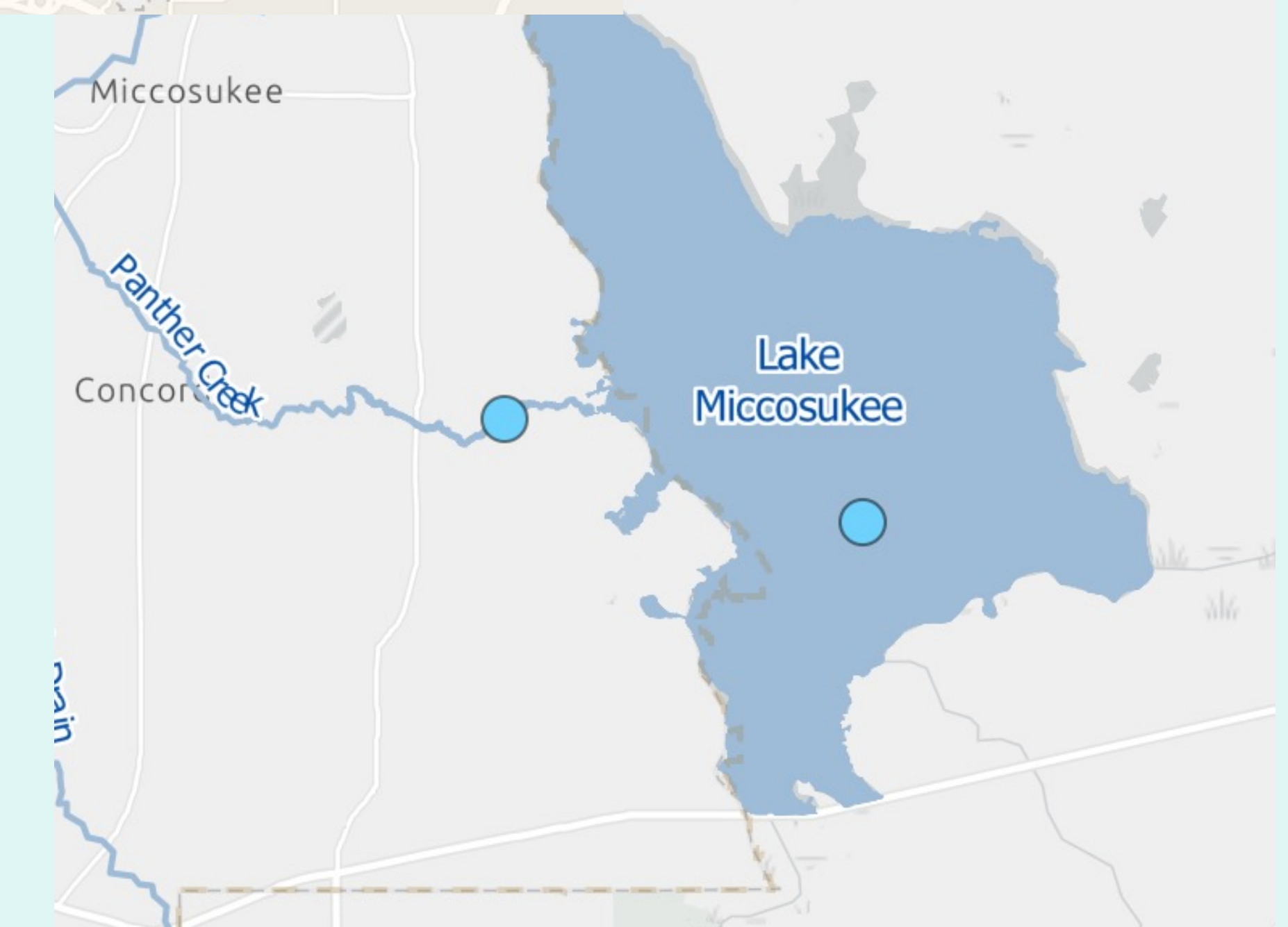


## Background

In this project, we used Water Quality Data collected by Leon County to analyze the differences in water quality between Lake Jackson, which is surrounded by a more residential and commercial area, and Lake Miccosukee, which is surrounded by a less populated area. By comparing these two lakes, we can observe a difference in water quality based on population density and surrounding land use. Water quality is an important variable that can indicate the health of the aqueous environment around the water body and the wildlife that it sustains. Poor water quality can also have social justice implications as it may be correlated to property values of the surrounding area and therefore lower socioeconomic status of the surrounding population. The results of this project can help determine what may be contributing to water quality in the Tallahassee area.



Each dot indicates a sampling location. The color indicates the water quality of the samples from that location, red being "impaired" and purple being "healthy".



## Results

The results of this study when compared to the surrounding land usage can be indicative of poor waste disposal or issues with surrounding sewage. This information can be useful for the City of Tallahassee as well as local social justice groups.

According to the Leon County Water Quality Report, Lake Jackson has an average water quality. The Water Resource Health falls right in the middle at five on a nine-level scale from "Impaired" to "Healthy." Lake Miccosukee falls at a seven on this same scale. Lake

Miccosukee is mostly surrounded by rural, agricultural land. There are few businesses and residential neighborhoods within a 1-mile radius around the water body. Comparatively,

Lake Jackson has mostly residential neighborhoods and some commercial areas within a 1-mile radius. Additional factors that could contribute to the water quality of these two bodies is size. Lake Jackson covers 4,254 acres while Lake Miccosukee is almost 50% larger, covering 6,257 acres. This two-point comparison indicates a proportional relationship between population density and water quality. This aligns with our predictions, as we know that humans tend to produce waste and pollution to areas they inhabit.

## Methods

Using the Leon County Water Resource Explorer, I analyzed water quality of Lake Jackson and Lake Miccosukee, and focused on surrounding land use (i.e., commercial, residential, agricultural, and recreational) as a factor that could be affecting water quality.

The data powering this interactive map is collected by Leon County monthly and is reported in an annual Water Quality Report.

I compared this data to the surrounding land's primary uses by reviewing maps and noting the area of land used for commercial or residential purposes.

## Acknowledgements

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## References

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