



# Natural Resources and Environmental Sciences Capstone Project

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# **Executive Summary**

## **1. Intro**

Marion County Lake is a 153 acre lake managed by Issac Hett and is located just



# Introduction













Light intensity was associated with given depths fo



Phosphorus is an essential nutrient for the success of cyanobacteria.

then that large quantities of phosphorus in waters causes rapid algal bloom

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that these blooms only represent the most severe blooms, and that cyanobacteria data is not regularly collected unless it becomes a safety hazard. Daily weather data was then collected from NOAA. This weather data is representative of the weather station at Marion County Reservoir, approximately six miles aw

about 1.7 g of phosphorus daily. Not all of the geese are at the lake, so the team assumed 400 at a time. So, to finalize the assumption, around 680 grams of

sampling and testing only took place every three to

*Figure 7: Annual Average Cell Count and Precipitation*





*Figure 11: Daily Precipitation and Cell Count*

*Figure 12: Daily Temperature and Cell Count.*

*Combined Results*





*Orthophosphate*





## Conclusion







Paerl, H., & Otten, T. (2013). Harmful Cyanobacterial Blooms: Causes, Consequences, and Controls. *Microbial Ecology*, 65. <https://doi.org/10.1007/s00248-012-0159-y>

