

MS Thesis
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Title: Benthic cyanobacteria abundance and production in the Tidal Potomac River

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ABSTRACT

Planktonic cyanobacterial harmful algal bloom (cHAB) occurrence in the Tidal Potomac River has dramatically decreased due to reduced nutrient pollution. The improved water clarity has facilitated the growth of toxic benthic cyanobacterial mats of *Lyngbya wollei*. This thesis investigates *L. wollei* biomass productivity and relationships between the measured variables. Sample analysis indicates rising growth trends for chlorophyll α and submerged aquatic vegetation (SAV), while revealing a significant correlation ($p = 0.003$) between the two parameters. Results provide a framework for subsequent studies, while highlighting the significant relationship between *L. wollei* growth and SAV presence, emphasizing the need for further research.