



Bottle Cap Project Update

Thank you so very much to every person and organization that has contributed to this project and supported us along this research endeavor. No words could explain how appreciative we are!

The bottle caps are being repurposed in our pilot-scale bioreactor designed and optimized to remove nitrogen and phosphorus from stormwater before it reaches the lagoon. Environmental conditions are carefully maintained in the system to promote natural, biological nitrogen-removal processes known as nitrification, denitrification and anammox. Specific bacteria convert different forms of nitrogen to inert nitrogen gas, removing it from the water naturally as a part of the nitrogen cycle. These “good” bacteria are growing on the plastic bottle caps that have been donated! To date, the treatment system **decreases ammonium nitrogen (NH_4) and phosphate (PO_4) concentrations in stormwater by >90% and >65%, respectively.**



Additional Ways to Help the Lagoon!

Volunteer Opportunities:

- <https://onelagoon.org/find-volunteer-event/>
- <https://savetheirl.org/get-involved/volunteer/>
- <https://brevardzoo.org/volunteer-programs/>
- <https://keepbrevardbeautiful.org/get-active/volunteer>
- <https://helphelagoon.org/html-how-to-help/>



You can learn to tailor your personal behavior and household habits to help improve water quality! Follow the link below to learn more about what you do from home to help our local lagoon!

<https://onelagoon.org/helping-from-home/>

Special thanks to:

- The IRLNEP for funding this research
- Florida Tech
- Lapin Services
- Brevard Zoo (thank you, Tyler!!!)
- The Sun Shoppe and Café and The Tiny Turtle
- Brevard County schools and organizations!