



Calusa Waterkeeper 2025 Annual Plan

Calusa Waterkeeper (CWK) is a grassroots science-based non-profit organization with a mission to protect and restore the Caloosahatchee River from Lake Okeechobee to the coastal waters. CWK is a watchdog and defender of our water resources to ensure sustainable health and safety of human and aquatic life, a thriving economy, and our quality of life in Southwest Florida. CWK is one of 300+ Waterkeepers across the globe and one of 15 in the state that make up the Waterkeeper Alliance, a global force for clean water. During 2025 we plan to work on the following objectives:

I. Aerosolized Toxin Testing – CWK developed a patent-pending device to research the potential human health risks from chronic airborne cyanobacteria exposure in Southwest Florida. CWK's Aerosol Detector for (Harmful) Algae Monitoring (ADAM) program provides sampling, analysis, and reporting regarding the presence of potential toxins in the air. Since inception in 2021, we have grown this pioneering research program and hope to advance it further in 2025 with the following goals in mind.

1. Form an **ADAM Ranger Committee** that meets monthly
2. Develop and implement an ADAM **Standard Operating Procedure (SOP)**
3. Create a scalable ADAM **Action Plan** that includes data collections, set goals, and outcomes.
4. Schedule ADAM **training/demonstration** sessions for Rangers and volunteers.
5. Purchase a \$30,000 **LightDek** unit to perform **in-house testing**.
6. Conduct a minimum of **8 ADAM tests**.
7. **Collaborate** with outside entities to **conduct research** and seek grant opportunities.

II. Fecal Indicator Bacteria (FIB) – In an effort to protect public health and hold authorities accountable, CWK rangers and volunteers collect and test 30+ water samples within our 1,000 sq. mile work area each month and process the data at our in-house lab. Testing for enterococci is used as an indicator of pathogens and related risks from exposure to waters polluted by human or animal waste, which could cause gastrointestinal illness, rashes, and infections. In 2025, our goals to advance the FIB program include:

1. Continue independent monitoring and FIB Testing of **30+ sites per month**.
2. Diversify locations to include other waterbodies, as deemed necessary by Waterkeeper.
3. Launch new **GIS interactive map** to better present results to the public.
4. Develop open and consistent **communication with local elected officials and authorities** by sharing FIB results directly with them each month.
5. Create a **FIB Standard Operating Procedure (SOP)** and follow the new Action Plan.
6. Continue collaboration with FGCU faculty and students on **source tracing research**.
7. Investigate **certification of our in-house science FIB lab**.
8. Increase public awareness, outreach and advocacy that **calls for action by stakeholders**.

III. Vertical Oyster Gardens (VOGs) - Vertical Oyster Gardens provide nature-based water filtration that serve as habitats for new aquatic life when strung from docks. CWK collects and recycles oyster shells to keep them from landfills, bio clean them, and hosts VOG construction workshops to engage and educate the public. 2025 goals include:



Calusa Waterkeeper 2025 Annual Plan

1. Host **quarterly VOG events** throughout the community.
2. Develop **VOG STEM Curriculum & Workshops** for students and conduct a pilot program in schools.
3. Explore additional collaboration and grant funding to offer **in-classroom VOG** curriculum & workshops.
4. Develop, conduct and publish a **VOG Research Study** that monitors and records data.
5. Utilize VOG workshops as a **recruitment tool** for volunteers, rangers and members.
6. Explore new **volunteer group collaborations** and fundraising opportunities via the VOG program.
7. Develop a more effective **online tracking system for data collection**.

IV. CWK Rangers – The CWK Ranger program is a unique initiative that differentiates us from other environmental non-profits and Waterkeeper organizations. It is designed to engage, educate, and empower residents who are passionate about improving our local waters in SWFL. Rangers are citizen scientists who monitor the health of regional waters through several observational and testing programs. Our Ranger program initiatives for 2025 include:

1. Host two training series.
2. Continue participation and critical support of the **three primary initiatives** in the annual plan: ADAM, FIB & VOG programs.
3. Host **Quarterly State of our Water meetings** that are open to rangers, members and the public.
4. Develop a strategic plan for **engagement and retention of rangers**.
5. Continue to update and improve the current **Ranger Training curriculum**.
6. Develop and implement an **e-learning ranger training** program.
7. Develop continuing education, picking **two areas of focus**.
8. Increase the number of Rangers and volunteers participating in **data mining and advocacy** activities.
9. Explore development of a **Jr. Ranger Program**.

V. Advocacy – State policy and legislation has a critical impact on many of our water quality issues. CWK will support legislation that is protective of clean water and oppose proposals that threaten it. While there are always new bills that require attention, we plan to focus on the following advocacy initiatives:

1. Continue to advocate for passage of the **Safe Waterways Act**.
2. Continue our **Action Plan** for Manuel's Branch and apply to other areas where FIB/pollution is high.
 - Formally request bacteria TMDLs for Manuel's Branch and Billy's Creek
3. Continue **legislative actions** such as signing letters and petitions in collaboration with WKA, WKFL, and other organizations.
4. Monitor and raise awareness of local policies and development projects that impact water quality.
5. Continue Waterkeeper **speaking engagements** throughout the community.
6. Develop strategies to **breakdown complex water issues** into easy-to-understand narratives.



Calusa Waterkeeper 2025 Annual Plan

7. Build **credibility and trust** with local authorities and elected officials.
8. Formally request nutrient TMDL FOR Matlacha Pass
9. Advocate for opportunities for **septic to sewer conversion in Estero**.

VI. Other Projects/Collaborations

1. Implement **GIS technology** for presenting FIB, VOG and ADAM data.
2. Continue to collaborate with **Florida Sea Grant** to facilitate the **Eyes On Seagrass** program.
3. Continued collaboration with **FGCU Food Forest** to **bio clean recycled oyster shells**.
4. Collaborate with **Keep Lee County Beautiful** to participate in one to two water **clean-ups** in 2025.
5. Collaborate with **Calusa Nature Center** for **science lab space**, a secondary **oyster garden storage site**, CWK public **display**, and hosting of **events**.
6. Collaborate with **Engage Estero** on water quality initiatives.
7. Remain open to other projects and **collaborations** that align with our mission.

There are three more pillars of our annual plan, the details of which will be maintained internally. These categories include:

VII. Fundraising & Grants – CWK will seek increased funding from grants, memberships, major donors, and event sponsorships and ticket sales using a variety of events and tactics.

VIII. Organizational Operations & Governance –The organization has increased staff and revenue this past year and will continue working on formalizing internal procedures, policies and management efforts.

IX. Communications & Marketing – To increase awareness and revenue, CWK plans to be more intentional with its marketing and communications efforts by attaining several internal goals.