



MIAMI
WATERKEEPER®



2020

ANNUAL REPORT

PROTECTING THE WATER YOU LOVE

10 YEARS OF PROTECTING THE WATER YOU LOVE

A MESSAGE FROM YOUR WATERKEEPER



As it has for everyone, 2020 brought challenges and opportunities for Miami Waterkeeper. We started off the year ready to celebrate our 10th anniversary and excited about our new programs, projects, and partners. Instead, we were tested to find creative ways to further our mission in a virtual and socially-distant world.

Through all the struggles, though, I am so proud to share that our dedicated staff did not miss a beat. We continued to respond to threats to our water resources from our home offices while finding ways to support one another from afar. We found innovative ways to reach new parts of our community, to pivot programs to online platforms, and to lead when acute crises, like this summer's fish kill, arose. We learned more about inclusion and committed ourselves to organizational change.

So, I'd like to share just a few of our 2020 water wins with you in this annual report:

- We surpassed our goal of reaching 1,000 Eyes on the Water — that's more than 500 people we've trained to act as water watchdogs.
- We led emergency efforts to save marine creatures and coordinated a community response during this summer's devastating fish-kill in Biscayne Bay.
- We catalyzed the implementation of fertilizer ordinances across the region to curb nutrient pollution in our waters.

Despite all the hardship, 2020 was a successful year for Miami Waterkeeper — a true testament to the resilience of our team and the support of our community. Since our founding 10 years ago, so much has changed. But our commitment to protecting the water has not. We're grateful for a decade of success and growth — and, most of all, we're grateful for you: our supporters. We look forward to the next ten years of protecting the water you love.

Sincerely,

Rachel Silverstein, Ph.D.
Executive Director & Waterkeeper
Miami Waterkeeper

EXPANDING OUR — REACH IN 2020

- Communities Reached with 1,000 Eyes on the Water Trainings
- Legislation passed
- Weekly water quality monitoring sites
- Community service and restoration event locations

1 SUPPORTING CIVIC ENGAGEMENT

This year, Miami Dade County residents had the opportunity to elect a new Mayor and five new County Commissioners — elected officials who impact day-to-day quality of life in our area. Miami Waterkeeper partnered with the **Miami Foundation** and other local non-profits to launch the “Our Miami: People’s Forums” series to connect residents to the candidates. At these virtual events, candidates responded to Miami Waterkeeper’s questions about sea level rise, septic tanks, and the environment. Miami Waterkeeper also held water-focused briefings for candidates running for office.

2 ORGANIZING FOR A SEA LEVEL RISE READY MIAMI

The US Army Corps of Engineers is proposing a \$4.6 billion investment to address storm surge risk in South Florida. This proposal, called the “Back Bay Study,” considers a range of “grey” infrastructure options like seawalls and flood gates, but largely leaves out nature-based solutions like mangrove restoration and living shorelines. Miami Waterkeeper and its partners, the **CLEO Institute**, **Environmental Defense Fund**, **Catalyst Miami**, and the **Miami Foundation**, spearheaded a comment letter on behalf of more than 15 community groups to propose a more equitable, sustainable, and environmentally-friendly plan.

3 PROTECTING WETLANDS AND WILDLIFE

South Florida’s coastal wetlands and waterways clean our water, recharge drinking water supplies, and protect us from storm surge. In 2020, the State of Florida made a grab for wetlands permitting authority that has traditionally been left to the federal government. Miami Waterkeeper and Waterkeepers Florida opposed this change in authority because it could green light development projects while not adequately protecting our precious water resources. In collaboration with **Earthjustice** and other partners, Miami Waterkeeper submitted several comment letters outlining our concerns and intends to launch legal action in 2021 on behalf of our members and supporters on this issue.

4 LAUNCHING NEW WATER QUALITY RESEARCH & PARTNERSHIPS

Miami Waterkeeper announced several new partnerships in 2020 to support our in-house water monitoring program. These include new municipal partnerships with the **Village of Key Biscayne** and **City of Miami**. Also, a new research study funded by the **City of Coral Gables** was launched in partnership with **Florida International University** to evaluate nutrient pollution in the Gables Waterway. We also secured a new water quality monitoring partnership with the **City of Fort Lauderdale** which will officially launch in 2021.

5 SAFEGUARDING NASSAU GROUPEY HABITAT

Miami Waterkeeper and partners launched a lawsuit against the federal government in 2020 for failing to protect Nassau grouper habitat as required under the Endangered Species Act. The Nassau grouper, a now threatened species, used to be one of the most common fish species in the United States. Its population has declined in recent years by 60% due to overfishing and habitat loss. Nassau groupers, like thousands of other species, depend on a healthy coral reef ecosystem to survive. Coral reefs face numerous threats from ocean acidification, disease, and pollution. In response to our lawsuit, the federal government has agreed to protect Nassau grouper habitat by 2023!

6 ADVOCATING FOR SUSTAINABLE PRACTICES AT TURKEY POINT NUCLEAR POWER PLANT

Miami Waterkeeper — in partnership with **Natural Resources Defense Council** and **Friends of the Earth** - moved forward with a legal challenge in 2020 to oppose extending the life of Turkey Point Nuclear Power Plant’s operating license. This license renewal is the first of its kind in the United States and would soon make Miami Dade County home to the oldest nuclear reactors in the world. Our litigation outlines concerns that the plant does not adequately consider sea level rise, protected species, or ongoing groundwater contamination. In 2020, Miami Waterkeeper and partners elevated this legal challenge to the DC Circuit Court — a federal appeals court — where the litigation is pending review in 2021.

7 CURBING NUTRIENT POLLUTION WITH LEGISLATION

This year, municipalities across South Florida took action to address the impacts of harmful nutrients on water quality. Nutrient pollution occurs when too many nutrients accumulate in our waterways - leaving them vulnerable to fish kills and algae blooms. This pollution can come from many sources including septic tanks, sewage leaks, and dirty stormwater runoff. Miami Waterkeeper’s “Reduce Fertilizer Runoff” campaign aided several municipalities in passing fertilizer ordinances in 2020 to reduce nutrient pollution, including the **Village of Key Biscayne**, **City of Miami**, and **City of West Miami**. Similarly, our new “Stop Septic Pollution” campaign was launched in 2020 to address nutrient-polluting septic tanks - an outdated method of sewage disposal that threatens public health and the environment.



Photo by Kathryn Mikesell

SUCCESS STORIES

FISH KILL & ALGAE BLOOM RAPID RESPONSE

This summer, Biscayne Bay's ecological tipping point was crossed when, overnight, areas of the Bay became a dead zone — unable to support any life because of sudden, devastating dips in oxygen levels in the water resulting in fish and wildlife suffocating overnight. This occurs in water bodies due to pollution inputs, such as septic systems, sewage leaks, stormwater runoff, and fertilizer overuse, leading to too much algae and bacteria in the water. Over the course of a few days, conditions in North Bay steadily declined and a severe algae bloom and fish kill event emerged.

In response to this fish kill event, Miami Waterkeeper mobilized to lead the response effort. Our team coordinated with government agencies, scientists, elected officials, the public, and the media to respond quickly to the crisis. We catalyzed an emergency response effort by the **City of Miami** and **Miami Dade County** to provide aeration for marine life in jeopardy. We organized community members in volunteer clean-up efforts to remove decomposing fish from the shoreline. After this wake-up call, Miami Waterkeeper continues to lead regular coordination meetings with local scientists and with advocacy groups.

WAVES OF CHANGE: A 10-YEAR CELEBRATION OF COMMUNITY

To commemorate our 10th anniversary, Miami Waterkeeper produced Waves of Change: a 3-episode docuseries highlighting the past, present, and future of South Florida's spectacular watershed. Unique storytelling was at the center of this program which detailed the evolution of our community's continually changing relationship with Biscayne Bay. Our team captured interviews with community members representing diverse audiences, from indigenous tribes to local artists, who have a stake in continuing the collective fight for clean water. Waves of Change shows how decades of advocacy against pollution, including our own 10 years of water wins at Miami Waterkeeper, are shaping the path forward to a more sustainable future.

PROTECTING THE WATER YOU LOVE — FROM HOME!

The COVID-19 pandemic presented new challenges and opportunities to rethink how to advance our mission for clean water remotely. Our team swiftly transitioned our signature community programs to virtual formats. In the wake of this digital transition, we achieved many unforeseen accomplishments. With the support of the **Perez Family Foundation**, our 1,000 Eyes on the Water program went fully virtual and succeeded in reaching its goal of training 500 individuals to observe, document, and report pollution. Our community also learned to spot rare wildlife from their homes during the early months of quarantine, leading to a first-of-its-kind observation of two endangered smalltooth sawfish swimming together in northern Biscayne Bay! We will continue to adapt our programs to be more inclusive and accessible for our community.

DIVERSITY INITIATIVES

Ensuring that all communities are represented throughout Miami Waterkeeper's work is at the center of our mission to ensure clean water for all. In 2020 we spent more time evaluating our work, and reflecting on how we can improve accessibility, equity, and inclusion. This year, our Junior Ambassador program, which trains high school students in environmental leadership, recruited its most diverse and representative group of students since its inception. We increased public school representation, ethnicity/race representation, and launched newly developed training topics on environmental justice to curb intolerance and build empathy. While we have made progress, we recognize this effort is ongoing in all of Miami Waterkeeper's work.

2021 - YEAR OF THE CORAL

Our coral reefs are invaluable to the economy, ecology, and South Florida way of life. However, corals face many threats - including from dredging projects. 2021 will present several important advocacy opportunities to protect South Florida's coral reefs from dredging projects. In 2016, Miami Waterkeeper and partners initiated litigation that successfully delayed the dredging of Port Everglades for several years while the Army Corps of Engineers conducted new environmental analyses related to the project. The new environmental documents were released in late 2020 and contemplate the impacts of the PortMiami dredging project — a project that illegally harmed 250 acres of coral reef and killed 560,000 individual corals. In 2021, we will continue our advocacy to protect South Florida's invaluable coral reefs.

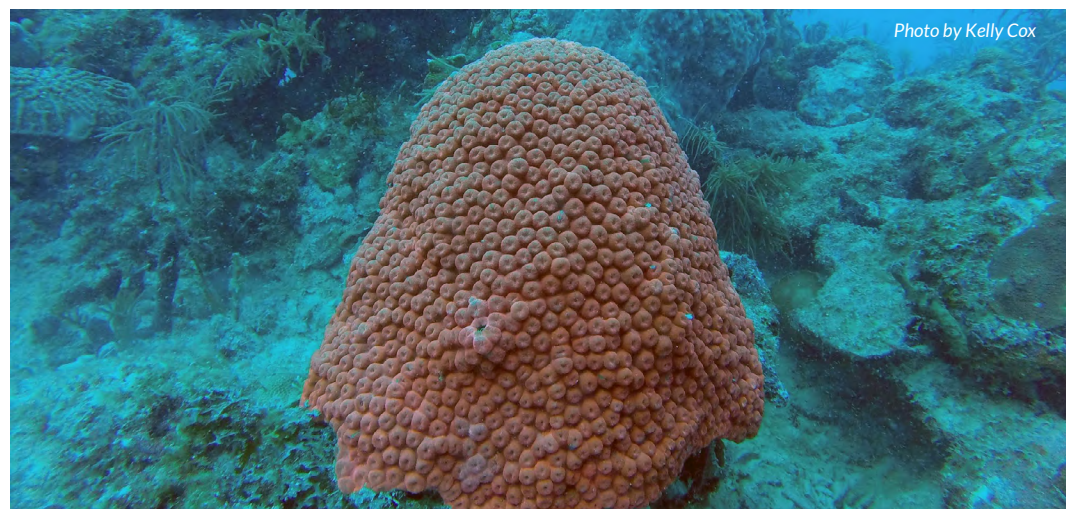


Photo by Kelly Cox

Photo by Dean Chambers



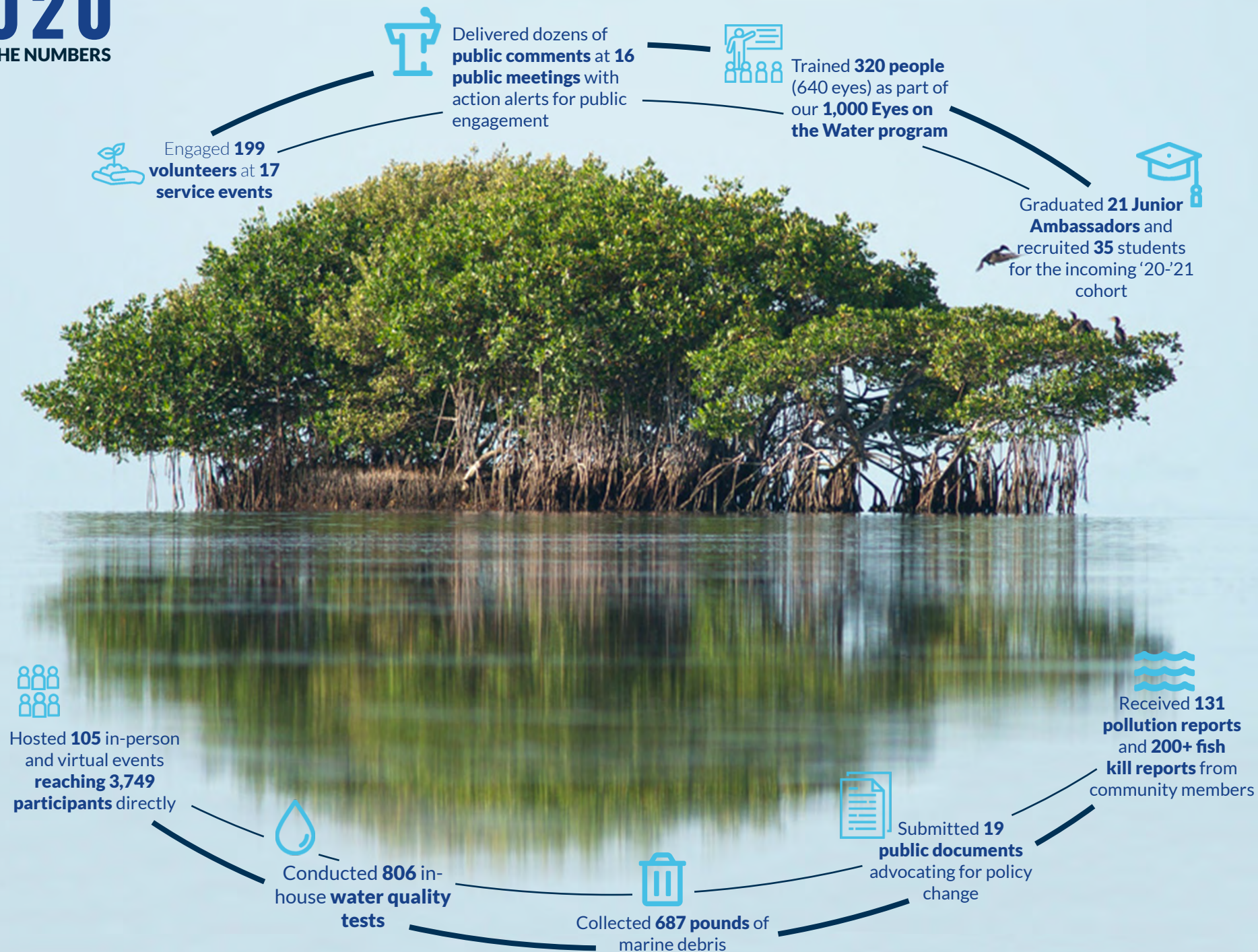
UPCOMING

WATER QUALITY PROGRAM EXPANSION

We are excited to announce an expansion of our water quality monitoring program in partnership with the City of Fort Lauderdale. Beginning in January 2021, our team will sample ten new sites within the City of Fort Lauderdale on a weekly basis for bacteria and other water quality parameters. The results of these samples will be posted on the free Swim Guide app, which lets the public know about water quality conditions in their local waterways. In addition, our water quality research is expanding. Our new EPA-funded research launches in 2021. This study will evaluate nutrient conditions in Biscayne Bay that were recently linked to the 2020 fish kill and algae bloom event.

2020

— BY THE NUMBERS





■ CITY OF MIAMI

With support from Mayor Francis Suarez, Commissioner Ken Russell, and the City Commission, Miami Waterkeeper received sponsorship from the City of Miami for weekly water quality monitoring of six City of Miami sites in 2020. Since the launch of this partnership, Miami Waterkeeper has worked closely with the City on a number of other initiatives. With support from Miami Waterkeeper in early 2020, the City Commission passed what was widely regarded as one of the strongest fertilizer ordinances in the State of Florida. The City also sponsored a fertilizer education campaign with Miami Waterkeeper which included the development of community-facing educational materials for HOAs, stores, home, and commercial fertilizer applicators.

The City was an instrumental partner in quickly responding to the fish kill and algae bloom event, mobilizing stormwater pumps for emergency aeration. Shortly thereafter, the City Commission passed important legislation sponsored by Commissioner Russell to bolster enforcement efforts for illegal stormwater discharges from construction sites. We are thrilled to continue our partnership with the City of Miami and we look forward to additional water wins in 2021.

■ BOARD MEMBER SPOTLIGHT: GREGORY FRANKEL



Miami Waterkeeper's newest Board of Trustee member, Gregory Frankel, is a South Florida native who has advocated for Biscayne Bay for as long as he can remember. Greg's love for the water motivated him to study Environmental Sciences at the University of California at Berkeley and then to spend a summer as a legal intern at the Natural Resources Defense Council in Washington, D.C. Across his career, Greg has provided expert environmental counsel to numerous elected leaders, including Oakland Mayor Jerry Brown and Housing Secretary Andrew Cuomo. Since joining the Board of Trustees, Greg played a critical role in Miami Waterkeeper's COVID-19 pivot to virtual platforms. As a grassroots organization embedded in the community, we deeply value Greg's work in connecting a wider audience to our shared mission.

■ PUBBELLY SUSHI

Miami Waterkeeper's corporate partners are vital to furthering our mission. We are thrilled to recognize this year's new partnership with Pubbelly Sushi. This local sushi restaurant approached Miami Waterkeeper with sustainability goals to become a more "clean-water friendly" business. What began as a discussion about sustainable takeout containers transformed into a dynamic partnership. Pubbelly Sushi was a restaurant partner and sponsor for our Waves of Change 10th Anniversary digital event where they showcased sustainable seafood on a specialty Waves of Change take-out menu crafted for the event. We thank Pubbelly Sushi for their leadership in Miami's sustainable restaurant scene and their commitment to environmental stewardship.

■ SUPPORTER SPOTLIGHT: AARON STAUBER

Aaron Stauber joined Miami Waterkeeper in 2020 as a graduate student intern and has played a crucial role in our recently launched "Stop Septic Pollution" campaign. His research focused on septic tank vulnerability - the understanding that septic tanks are failing in South Florida and serve as a direct source of contamination to our water quality. The Stop Septic Pollution campaign calls for urban septic to sewer conversion, among other policy initiatives, to retrofit this outdated method of sewage disposal. Aaron's work resulted in funding for a septic to sewer conversion pilot project in Miami Shores and has catalyzed other pieces of pending legislation. With his legal and real estate background, Aaron provides a practical approach towards septic to sewer conversion. Aaron and his wife Aviva are dedicated members and supporters of Miami Waterkeeper having sponsored several organization initiatives including our Waves of Change docu-series. Aaron recently graduated from the University of Miami with his Master's degree and remains committed to Miami Waterkeeper's mission - when he's not kiteboarding, of course!



■ CORNELIA T. BAILEY FOUNDATION

We are thrilled to announce our newest family foundation partner -- The Cornelia T. Bailey Foundation. This new partnership will support our environmental education and youth leadership initiatives. The foundation was created in 2007 due to the generosity of Mrs. Cornelia Tarrant Bailey - an arts and education advocate for South Florida. The Foundation's support resulted in new environmentally-themed curriculum development for online classrooms and our own Junior Ambassador program. We hope that this work is a fitting tribute to the legacy of Mrs. Bailey and her commitment to STEM education and the environment.

■ INAUGURAL PORTER PRIZE: JIM PORTER

Presented at Miami Waterkeeper's second annual State of the Water event in March 2020, the inaugural Porter Prize will be awarded yearly to individuals who demonstrate outstanding commitment and service to protecting South Florida's watershed. James M. Porter, Esq., the prize's namesake, has dedicated thousands of hours to protecting the overall health of Biscayne Bay as Miami Waterkeeper's legal counsel. Jim Porter's tireless work has fueled our litigation efforts amounting to the restoration of 10,000 threatened staghorn corals, immediate action to stop sewage leaks, and holding polluters accountable. He believed in Miami Waterkeeper from our earliest days, serving as a boat captain and fishing guide to our staff. Many of our water wins would not have been possible without Jim's dedication to Miami's environment. Each year, we will award the Porter Prize to an individual that builds on Jim's mission of preserving Miami's water and wild places for generations to come.



Photo by Dean Chambers

10 Years of **WATER WINS**

Launched **9**
legal actions

2,300 hours
of legal work

5,000+ gallons
of roundup
prevented

Over **1000**
“Eyes on
the Water”
trained

6 peer
reviewed
scientific
articles
published

10,000
threatened
staghorn
corals
restored

1400+
water
samples
taken

1,000+
volunteers

75+ Junior
Ambassadors
graduated

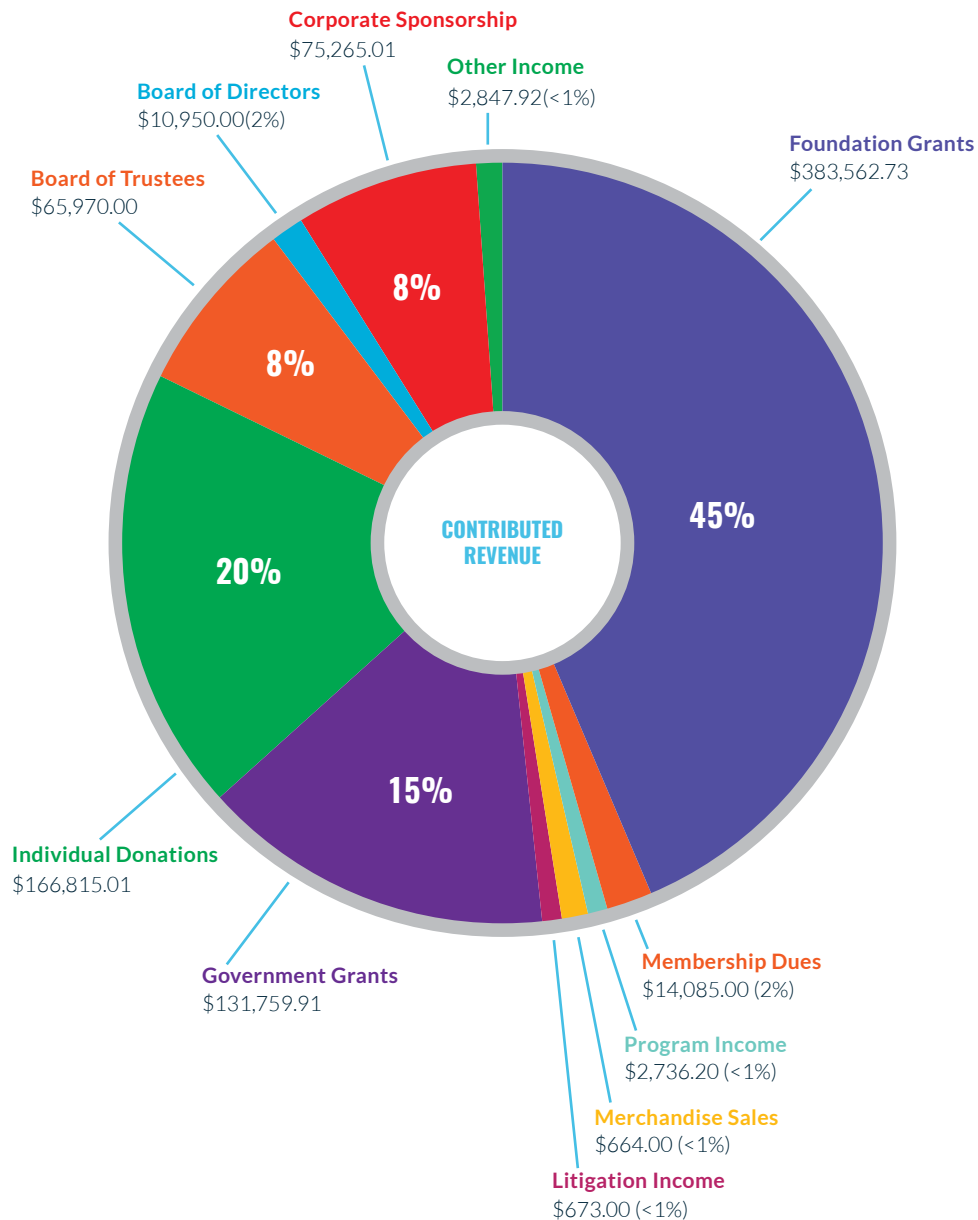
7 Strong
fertilizer
ordinances

Alerted the
public **500+**
times of failed
water quality

Stopped rule
allowing toxic
discharges

FINANCIAL HIGHLIGHTS

■ JANUARY 1, 2020 - DECEMBER 31, 2020



Total Revenue \$855,328.78

TEAM MIAMI WATERKEEPER

■ STAFF

Rachel Silverstein, Ph.D. - Executive Director & Waterkeeper
 Kelly Cox, Esq. - General Counsel
 Carla Lovinsky - Office Manager
 Kayla Hauge, MAMC - Marketing Manager
 Collin Schladweiler - Program Manager
 Elizabeth Kelly, Ph.D. - Water Quality Research Manager
 Casey Dresbach, MPS - Community Engagement Coordinator
 Samantha Morejon - Environmental Field Technician
 Jessica Dennis* - Communications Associate
 Gabriel Thompson* - Water Quality Field Technician
 Veronica Lucchese* - Water Quality Field Technician
 Laura Chaibongsai* - Program Director

■ INTERNS

Amanda Acevedo - Research Intern
 Teia Baker - Programs Intern
 Kate Bjorklund - Programs Intern
 Maria Briz - Programs Intern
 Meagan Collins - Legal Intern
 Tara Garner - Research Intern
 Marcos Izquierdo - Research Intern
 Mitchell Latzman - Programs Intern
 Bridgette Lemus - Programs Intern
 Elizabeth Martinez - Programs Intern
 Lauren Paulet - Marketing Intern
 Anastasia Pierik - Legal Intern
 Leigh Salomon - Legal Intern
 Aaron Stauber - Policy Intern
 Kendall Young - City of Miami Fertilizer Education Intern

■ PARTNERS

Our partners support the work we do, making our programs and campaigns possible.

The United States Environmental Protection Agency	Recreation	Florida Federation of Garden Clubs
The Paul & Maxine Frohring Foundation	Miami-Dade County	Air Essentials
NOAA Habitat Focus Area Program	Bast Amron	HSBC
The Miami Foundation	Holland & Knight	Earthjustice
The Jorge M. Perez Family Foundation	Environmental Defense Fund	Frontier Airlines
The Key Biscayne Community Foundation	Rickenbacker Marina	Miami-Dade College
The Coral Gables Community Foundation	Pelican Harbor Seabird Station	University of Miami
The Curtis & Edith Munson Foundation	Fiduciary Trust International	Ransom Everglades School
The City of Miami Beach	Trivest	Cloud39
The City of Miami	Liz Hogan Group	Miami Beach Garden Club
The Village of Key Biscayne	Piniella Asthma + Allergy	United Way of Greater Atlanta
City of Miami, Office of Mayor Suarez	Rudd & Diamond P.A.	CN Bank
The Fine and Greenwald Foundation	Waterlust	Breakthrough Miami
The Al & Jane Nahmad Foundation	WLRN	Risk Management Solutions
Louis N. Cassett Foundation	Grove Village Properties Inc.	Samara Fund
The Charlesmead Foundation	Dade Heritage Trust	Target Circle
Hydro Flask	MCO Environmental Inc.	Facebook
Warburg Pincus	Broward Sierra Club	Overton Foundation
TUUCI	Rugby Realty	Dharma Yoga Studio
Podhurst Orseck	Atlantic Sapphire - Bluehouse Salmon	Coral Gables Garden Club
Patagonia	Uniesse Marine Group	Club Pilates Brickell
Coffey Burlington	Cornelia T. Bailey Foundation	Lilly Pulitzer
City of Miami Department of Parks and Recreation	Compass	Florida International University
	Club Pilates	National Christian Foundation
	Pubbelly Sushi	Miami Lakes Garden Club
	Garden Club of South Miami	

*past employee

■ BOARD OF DIRECTORS

Our Board of Directors works primarily to guide the strategic direction and operations of Miami Waterkeeper.

Lauren Brown Hornor, J.D.
 Greg Clark
 H Jordan Weitz
 Philip Kushlan
 Amy Clement, Ph.D.
 Emilie Fritz Veloso

■ BOARD OF TRUSTEES

Our Board of Trustees works to build Miami Waterkeeper's capacity through fundraising and community support.

David Schwedel
 Maria Schwedel
 Marcelo Fernandes
 Angel Reyes, J.D.
 Judd Rosen, J.D.
 Gunther Grineberg
 Gregory Frankel, J.D.
 Kenneth Broad, Ph.D.
 Roger Baumann
 Cindy Lerner, J.D.
 Caroline Szajman
 Jill Reiter, J.D.
 Kevin Dalal, M.D.



**MIAMI
WATERKEEPER®**

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WATERKEEPER® ALLIANCE

We are a proud member of the Waterkeeper Alliance — the largest and fastest growing nonprofit solely focused on clean water - made up of over 350 Waterkeeper organizations and affiliates protecting more than 2.5 million square miles of rivers, lakes, and coastal waterways on 6 continents.



Photo by Greg Clark