



ReClam The Bay 2023 Annual Report



FROM THE CHAIRMAN AND THE PRESIDENT

Welcome to our 2023 Annual Report. In 2023, our members, volunteers, and assets grew as ReClam the Bay (RCTB) continued to reach deeper into the community. We now operate 12 upwellers (shellfish nurseries) within the Barnegat Bay estuarine system (Barnegat Bay, Manahawkin Bay, and Little Egg Harbor Bay), which covers over 42 miles of shoreline from the Point Pleasant Canal to the north to Little Egg Harbor Inlet in the south.

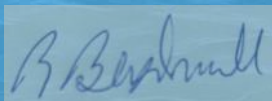
RCTB is a 501(c)3 environmental charitable organization. Our mission is to conserve and improve the estuary through shellfish-related, sustainable, and resilient stewardship projects. We employ an interactive three-step process: 1) hands-on education for our members and volunteers, 2) establishing programs to stimulate the action of members and the public, and 3) sharing our knowledge with other organizations and the public through various educational venues and community events.

Activities include growing shellfish (primarily clams and oysters) in the wild and in upwellers, experimenting with growing techniques, habitat creation, and shoreline stabilization. We reach out to the community to elevate understanding, promote participation and work with local municipalities and organizations to develop living shorelines solutions.

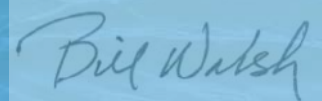
We are an all-volunteer group that relies on the generosity of our members, organizations and individuals for human capital and financial support. Consider joining us as we continue this critical mission.

Your investment in RCTB will help us continue to deliver quality programs to the public, including hands-on and classroom education, and programs to stimulate interest and action by others through sharing our knowledge and mission at various educational venues and community events.

Read on to hear more about our passion for our coastal way of life. We are working hard every day to earn your trust and support. Thanks from the bottom of our bays!



Rick Bushnell, Chairman



Bill Walsh, President

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SUMMARY OF HIGHLIGHTS

Shellfish Production

RCTB uses a system of land-based upwellers to grow hard clams and oysters. An upweller is a shellfish nursery. Shellfish are raised in a series of silos suspended in a tank that uses flowing baywater as the primary method for supplying food, nutrients and oxygen. Silos have a screen bottom that allows the water to flow upward through the silo and then back out to the bay.

RCTB operated 12 upwellers this year at the following locations - Barnegat Light, Beach Haven, Brant Beach Yacht Club, Cattus Island, Holiday Harbor, Island Beach State Park, Mantoloking Yacht Club, Mariner's Marina, St. Francis Community Center, Surf City Yacht Club, Trader's Cove and Green Street Park in Tuckerton. The Mariner's Marina upweller is the newest upweller and began operating at that location in 2023.

In May, RCTB put a new upweller into service at our site in Island Beach State Park Marina. This upweller, designed by Hoopers Island Oyster Company in Cambridge, Maryland, maximizes the surface area of silos, thereby increasing stocking density. This design also increases water flow rates, translating to faster shellfish growth.



Hard Clams - The Bureau of Marine Habitat & Shellfisheries in the New Jersey Department of Environmental Protection Division of Fish and Wildlife, Marine Resources Administration purchased approximately 500,000 hard clams from Parsons Mariculture and 200,000 from Bayfarm Inc., that were raised in the RCTB upwellers. In addition, RCTB overwintered approximately 130,000 clams from the 2022 growing season. These clams had a survival rate of 90% over the 2022-2023 winter. They were distributed to our network of upwellers in the Spring to resume the grow out phase.

RCTB conducted a total of six plantings in the bay during July, August and October. Nearly 420,000 clams from the 2022 overwintered crop and the 2023 Parsons Mariculture purchases procured by NJDEP were placed in areas designated by the Marine Resources Administration.

Approximately 154,000 seed clams were placed into our floating upweller system (FLUPSY) in October. They will spend the winter in the FLUPSY.

In 2023, RCTB purchased 20,000 2mm diploid oysters, 3,000 surf clams and 8.5 million diploid eyed oyster larvae from the NJ Aquaculture Innovation Center.

Oysters - The 20,000 diploid oysters were distributed among 12 upwellers. Upon receipt, the estimated count was 20,400. The final count for the season was approximately 17,400, a loss of 15%. These oysters were bagged and deployed to the living shoreline at Mordecai Island.

Oyster Eyed Larvae - RCTB purchased eyed larvae to fulfill oyster spat on shell work at Parkertown Beach in Little Egg Harbor Township and the living shoreline at Mordecai Island off Beach Haven. Oyster spat-on-shell yields exceeded 21% for the first time ever, resulting in over 2 million oysters being added to the Bay's living shoreline projects.

Surf Clams - 2023 marks the first time RCTB experimented with growing surf clams. Some external reports indicate that surf clams are moving further north and into deeper waters because of warming ocean temperatures. Surf clams prefer cold water and are not as resilient as the hard clams that we traditionally raise. Results were better than anticipated. We had a survival rate of approximately 80%. This little experiment found that surf clams can be raised in land-based upwellers, despite the warmer bay water during New Jersey summers. They were planted in the bay in deeper water where we can monitor their growth.

Community Events

Community events offer RCTB volunteers the opportunity to reach out to the public, provide some education, raise funds and sell RCTB merchandise. Some of the venues where RCTB participated include the Artisan Market in Beach Haven, the Beach Plum Festival, the Surf City Farmers Market, The BoatYard in Manahawkin, Lavallette Founders Day, the New Jersey Maritime Museum, the Surf City Bay Beach, Chowderfest and Shellabration. Our members were able to share our message with over 10,000 attendees at these and other events.

IN THE BAY

New Jersey Department of Environment Protection (NJDEP) Mordecai Island Grant

RCTB has had an ongoing relationship with the Mordecai Land Trust for more than a decade in an effort to preserve and restore Mordecai Island. Mordecai Island is a 45 acre, uninhabited coastal marsh island in Barnegat Bay, NJ. The island has experienced accelerated erosion and has lost approximately 26 acres (37%) since 1930, which is due to a realignment of the New Jersey Intracoastal Waterway by the Army Corps of Engineers, storms, boat wake, and sea level rise.

In March 2020, RCTB was awarded a grant by the NJDEP in the amount of \$30,000 (matched by \$40,000 in RCTB volunteer time) to place 4,000 bags of shell to assist in protecting a portion of Mordecai Island from further erosion. From 2021 to 2023, RCTB has filled and deployed 4,000 shell bags to the living shoreline.

The purpose of this Grant Project was to expand the living shoreline by adding 4,000 shell bags to the living shoreline as well as deploying spat on shell bags to foster the growth of oyster colonies. In order to accomplish this expansion, RCTB pledged that a total of 1,400 volunteer hours would be devoted to this task. In the course of the two plus years devoted to this project, the six hundred foot living shoreline was greatly expanded. Upon successful completion, a total of 4,959 shell bags were deployed and the project was supported by over 1,500 hours of labor.

COASTAL Project

RCTB has joined with the Ocean County Soil District (OCSD) and a diverse group of partners in the NJ COASTAL Aquaculture Project (Conservation Opportunities Advancing Sustainable Technologies for Aquaculture Leases). The COASTAL project was awarded \$961,227 funding for a Regional Conservation Partnership Program (RCPP) project from the United States Department of Agriculture, Natural Resources Conservation Service. Project partners will provide technical assistance and an additional \$961,227 in match through cash and in-kind contributions, partners include: NJDEP Bureau of Shellfisheries, NJ Department of Agriculture, Long Beach Township, the Barnegat Bay Partnership, ReClam the Bay, Cape Atlantic Conservation

District, Stockton University, Parsons Mariculture, Forty North Oyster Farms/Barnegat Oyster Collective, Jetty Rock Foundation, the Pew Charitable Trusts, Rutgers Cooperative Extension, the Nature Conservancy (NJ Chapter) and the New Jersey Aquaculture Association. RCTB pledged a total amount of \$118,500 in in-kind services over the five years of this project.

Little Egg Harbor Spat on Shell Projects

In July 2023 RCTB was awarded two separate contracts by Little Egg Harbor Township to design and construct Spat-on-Shell projects as part of restoration activities at the Parkertown and Mystic Beaches. Due to severe erosion, Little Egg Harbor Township adopted projects to restore these public beach areas to the 1977 shoreline, slow wave action, improve habitats and protect uplands. RCTB's role is to add oyster spat on shell material to the breakwater structures at each site.

In July, RCTB deployed 100 bags of cultch material to the bay side of each of the two breakwaters at the Parkertown site plus 100 spat on shell bags to the land side of the southern breakwater. In August, RCTB received additional oyster eyed larvae that were placed in the spat tank to begin the remote setting process.



In September, 118 spat on shell bags were retrieved from the spat tank at the RCTB Beach Haven Aquaculture Center, transported to the Parkertown site and deployed to the northern breakwater. In total, 218 bags of spat on shell were installed on the beach side of the two breakwaters, successfully completing the Parkertown project. This exceeds the spat on shell requirement by 9%.



The Mystic Beach project has the same requirements on four separate breakwater structures and is scheduled for completion in 2024. RCTB will use a similar process to that used at Parkertown. Eyed oyster larvae will be remote set on 400 bags of cultch

material at our Beach Haven Aquaculture Center, then transported to the Mystic Beach site for deployment along with 400 bags of cultch material to attract oyster larvae naturally occurring in the water column.

Oyster spat-on-shell yields exceeded 21% for the first time, resulting in over 2 million oysters being added to the Bay's living shoreline projects at Mordecai Island and Parkertown.



OUTREACH AND EDUCATION

Shellfish in the Classroom



This spring, RCTB resumed the SITC program that had been sidelined by the Covid pandemic. Through multiple communities, schools and after-school programs, the RCTB educators reached more than 700 students, between 4th and 12th



grades. Two programs were taught, focusing on the ecological benefits of Barnegat Bay's shellfish, including health, resiliency, and shoreline stability. A second class, targeted to older students, introduced some of the scientific equipment employed in measuring



environmental conditions critical to raising healthy oysters. In addition to the instruction, RCTB provided young oysters, along with aquariums and related equipment for the classroom.

Coastal Stewardship Course

Each year, the Rutgers Cooperative Extension of Ocean County hosts the Coastal Stewardship course which is a part of the Barnegat Bay Shellfish Restoration Program (BBSRP) and their collaboration with ReClam the Bay. The Coastal Stewardship class provides a fundamental educational experience that more than 600 RCTB volunteers have taken. In 2023, this ten week course covered topics including Marine Ecology, Shellfish Biology and Aquaculture, Water Quality Monitoring and Shell Recycling, Shellfish and Seagrass Restoration, Habitat Restoration and Living Shorelines, and Climate Change and Coastal Resiliency. A total of 93 students registered for the 2023 Coastal Stewardship course, including 56 new students and 37 graduates who registered to return for continuing education. The Coastal Stewardship course will continue to be offered annually to provide the educational foundation that helps to empower many RCTB members to get involved with shellfish and environmental issues related to Barnegat Bay and beyond.

RCTB Exhibit at Jenkinson's Aquarium

In conjunction with a renovation of the Jenkinson's Aquarium in Point Pleasant Beach, New Jersey, the RCTB exhibit got a refresh as well. The exhibit depicts a living bay shoreline and a working upweller model growing oysters, clams and bay scallops.



The Clam Trail

The Clam Trail is a public arts and awareness project that involves more than 30 decorated clams, standing over five feet tall, located throughout Ocean County. It is a year round eco-learning activity. Each clam has a plaque bearing an ecological fact which is used as part of a 'treasure hunt' to find the clam and record the fact. RCTB re-energized The Clam Trail by including a QR code registration system to track visitors. This improved efficiency of registration and turnaround for those who complete the Clam Trail.

Special thanks to Natalia Henriques-Costa and Manuel Costa, Jr., owners of Henriques Yachts in Bayville. They stepped out of their custom boat building shoes to mold two new giant clams for the Clam Trail. Their generous contribution helps RCTB continue our critical mission of education, outreach and restoration of the shellfish population.

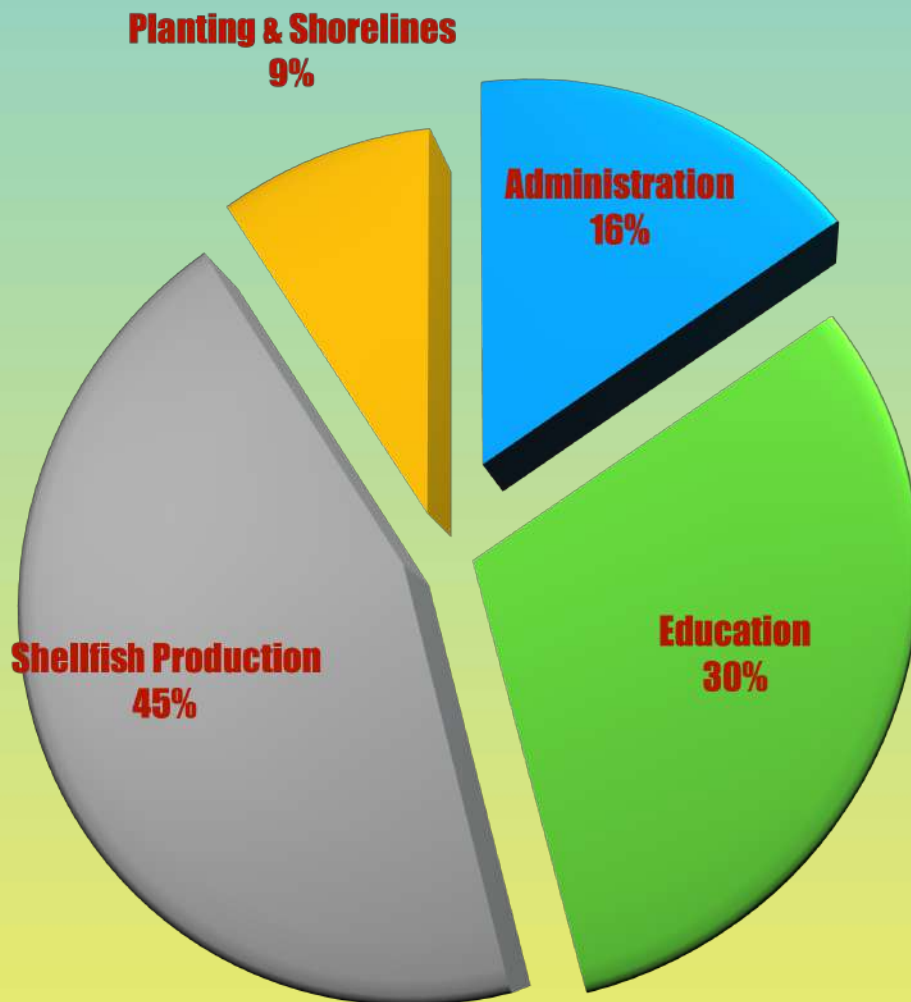
Henriques
YACHTS, INC.



INVESTMENT IN THE BARNEGAT BAY ESTUARY

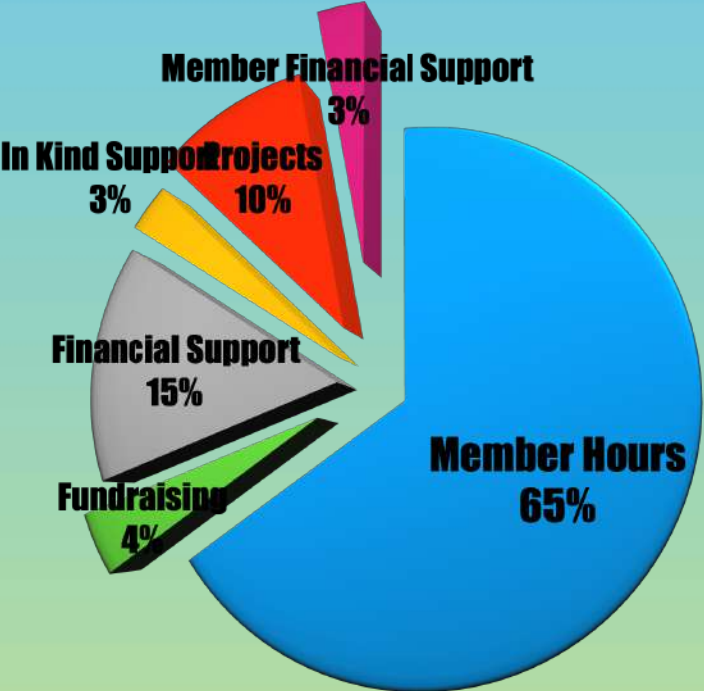
RCTB's investment in the Bay is derived from a variety of inputs. Membership Volunteer Hours (65%) continues to be the largest portion of our investment in the Bay. Individual contributions, financial support from foundations and membership financial support represents 22%. Revenue from Projects and In-Kind services represent 13%.

The result is an investment of \$454,000 in the future of the Barnegat Bay Estuary, our largest annual impact to date.



OUR MEMBERS

Since our inception in 2005, ReClam The Bay (RCTB) has been an all-volunteer "army." Our volunteer members are the core of our operation. They serve as upweller captains, participate in construction, education, project management and the requisite 'back office' functions. They are assisted by other members who, by devoting over 20 hours of service each year earn the title of **Volunteer**. Approximately 75 members supporting our educators, participating in community events, maintaining our fleet of upwellers, and handling the many little things that come up while raising millions of clams, oyster spat, and reaching an average of 10,000 people in a typical year.

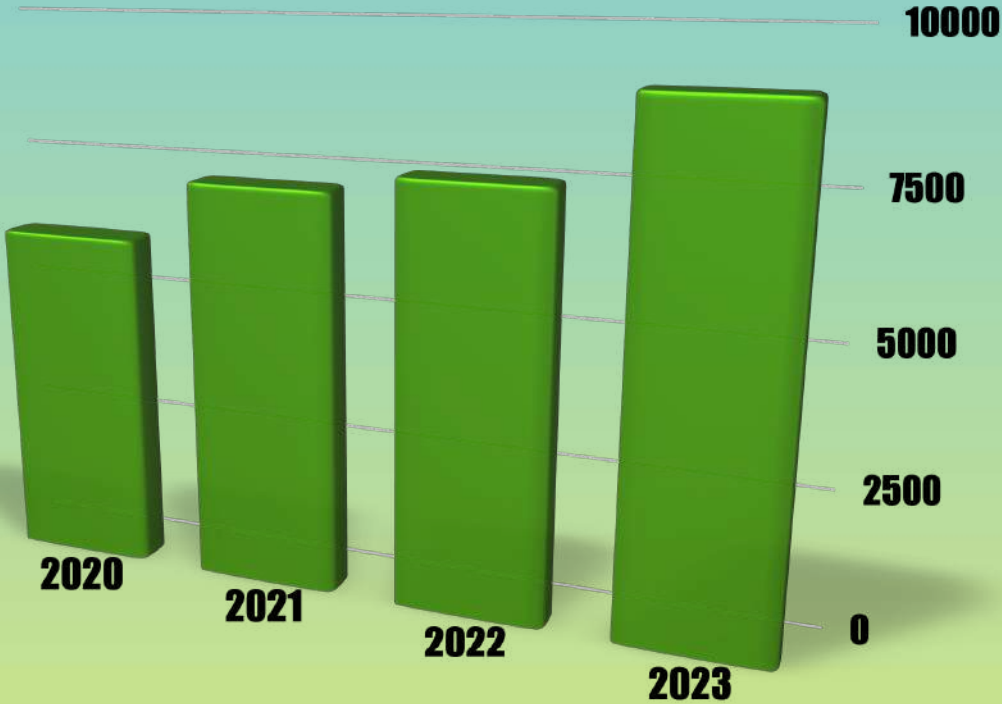


RCTB also relies on a number of children, adult, student, local and vacationing volunteers who assist in maintaining our upwellers.

Many members are graduates of the Coastal Stewardship Course offered by the Rutgers Cooperative Extension of Ocean County and the Barnegat Bay Shellfish Restoration Program (BBSRP), where they receive training about shellfish aquaculture, oyster reef restoration, maintaining and improving water quality in the watersheds and bays, and hands on instruction on how to grow shellfish. Since our inception in 2005, RCTB members and volunteers have put approximately 30 million clams, oysters, bay scallops, surf clams and oyster spat on shell in Barnegat Bay.

RCTB members provided over 9,000 hours of dedicated service in 2023, exceeding last year's effort by 20%.

Member Support in Hours



LOOKING TO THE FUTURE

In 2024, RCTB will complete the spat on shell project at Mystic Beach in Little Egg Harbor Township and pursue additional collaborations with organizations whose mission and values align with our own. With the continued support of our donors and volunteers, RCTB will be able to expand our efforts to: 1) educate 2) raise awareness 3) grow more shellfish 4) expand our Shellfish in the Classroom program 5) provide more scholarships and internships for budding marine and environmental scientists, and 6) learn more about the bay as a habitat so we can better monitor and improve conditions.

It's all about preserving the coastal way of life and leaving our bays in a better condition for generations to come.

THANK YOU

Since 2005, your generous support has helped us to provide education about the Barnegat Bay estuary – how to conserve and improve it through shellfish-related, sustainable and resilient stewardship projects.



JOIN US

BECOME A MEMBER

From raising shellfish in our upweller nurseries, to providing educational sessions at community events and in classrooms, to fundraising, to bagging shell and building living shorelines, we leverage thousands of volunteer hours to educate about water quality in our bays and the impact shellfish have on our coastal way of life.

Join us at reclamthebay.org/sustaining-membership

DONATE

As an all-volunteer non-profit 501c3 organization, we rely on the generosity of individuals, businesses and foundations to support our mission of improving the condition of the estuary through education about the Barnegat Bay - how to conserve it and improve it through shellfish-related, sustainable and resilient stewardship projects. We grow and maintain millions of baby clams and oysters in the Barnegat Bay estuary which includes Barnegat Bay, Manahawkin Bay and Little Egg Harbor Bay. We want people to understand that healthy bays and healthy shellfish are dependent on one another. Help us give them a better home so they can give us a better home and save our beautiful bays.

Support our work today at reclamthebay.org/donate

2023 ReClam The Bay Officers and Board Members

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Max Lopp, Vice President
Cheryl McCurry, Secretary
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