#### THE SURFRIDER FOUNDATION EASTERN LONG ISLAND CHAPTER PRESENTS



# BLUE WATER TASK FORCE Water quality report 2022

BWTF.SURFRIDER.ORG







Jaime LeDuc collecting a sample with a new PVC pole, created at a collaborative workshop with all three partners. Photo: CCOM

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BLUE WATER

## THANK YOU TO OUR VOLUNTEERS AND PARTNERS

The Blue Water Task Force aims to provide year-round water quality information to the public to supplement seasonal monitoring by the Suffolk County Department of Health. This data is used to inform safe beachgoing and water recreation on Eastern Long Island.

**THANK YOU** to the volunteers, partners, and supporters of the Blue Water Task Force on Eastern Long Island, which includes the Surfrider Foundation Eastern Long Island Chapter, Concerned Citizens of Montauk, and Peconic Baykeeper. Your support and commitment make this program possible.

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Partners from the Surfrider Foundation Eastern Long Island Chapter, Peconic Baykeeper, and Concerned Citizens of Montauk high five. Photo: CCOM.

## INTRODUCTION

The Blue Water Task Force (BWTF) is the Surfrider Foundation's volunteer water quality monitoring program that generates critical water quality information in coastal communities around the country to inform safe beachgoing. With a national network of over 50 BWTF labs, Surfrider chapters use this program to raise awareness of local pollution problems and to bring together communities to implement solutions.

On the East End of Long Island, the Surfrider Foundation Eastern Long Island Chapter partners with the Concerned Citizens of Montauk (CCOM) and Peconic Baykeeper to perform year-round water quality monitoring. We have now established 78 sampling locations on the East End. Our Blue Water Task Force team samples weekly during the summer, biweekly during the fall and spring, and monthly during the winter.

The BWTF water quality information augments the data provided by the Suffolk County Department of Health Services through their seasonal beach program. The County only monitors lifeguarded bathing beaches during the summer swimming season, while the Blue Water Task Force covers a variety of popular recreational areas including ocean and bay beaches, estuaries, and coastal ponds, which may not have lifeguards present. The Blue Water Task Force also tests stormwater outflows and creeks as they can carry pollution into recreational waters.

Water quality samples are tested for the presence of enterococcus, a type of fecal bacteria that indicates the presence of human or animal waste in the water. Elevated levels of enterococcus increase the likelihood that other pathogens are present in the water, which can potentially make people sick. Water quality results are compared to the health standard used by New York State and Suffolk County to make beach closure decisions, specifically 104 colony-forming units of enterococcus per 100 milliliters (104 cfu/100mL). All water quality data are posted online at **bwtf.surfrider.org**. We encourage everyone to check the most recent test results before heading out for a swim.



# WHERE WE TEST

For the full list of sample locations and results, visit the interactive maps on the Blue Water Task Force website: **bwtf.surfrider.org** 

## NORTH FORK AND SOUTHAMPTON:



## EAST HAMPTON AND MONTAUK:



## **PROGRAM UPDATES**

In 2022, Peconic Baykeeper was able to purchase an autoclave and glassware so we could switch away from some of our single use plastic supplies. This has saved us over 2,000 pieces of plastic this year!

We continued our expanded efforts to sample waters on both the North Fork and South Fork. This was only made possible because we doubled our team of samplers this year – we had 16 samplers in 2021 and 32 people helping out in 2022!

Our number of sampling locations grew from 71 sites to 78 sites in 2022. We added several creek locations on the North Fork. We also added Wildwood Lake in Riverhead. With the help of the Shinnecock Nation Kelp Farmers, we also added two sites of interest in Shinnecock Bay: Heady Creek in Southampton, and Lynn Avenue in Hampton Bays near the kelp farm. See a full list of our new sites below.

#### **NEW SITES IN 2022:**

- Cutchogue: Wickham's Creek
- Hampton Bays: Lynn Avenue
- Riverhead: Wildwood Lake
- Southold: Goose Creek
- Southold: Richmond Creek East
- Southold: Richmond Creek West
- Southampton: Heady Creek

Most of these new sites were added in the later half of the year, so they did not have as many samples as the more established sites, but we still included for analysis. We are so grateful to all our dedicated volunteers who made this expansion possible!



A pole is used to make sampling easier at some sites and through the colder months. Photo: Peconic Baykeeper

The Eastern Long Island Blue Water Task Force monitors bacteria levels at 78 locations from East Quogue to Montauk and on the North Fork. Water samples are collected at popular recreational sites including ocean and bay beaches, estuaries, and coastal ponds. We also test stormwater and other flows of freshwater that discharge at the beach. Water samples are processed in the labs located at the offices of either CCOM in Montauk or Peconic Baykeeper in Hampton Bays.

In 2022, trained volunteers and staff collected 1,788 samples from 78 sampling sites located across the East End.

Tables 1-5 below provide summary statistics for all water quality results obtained during 2022. The tables show the percentage of samples collected at each site that resulted in bacteria counts which exceeded the state health standard of 104 cfu/100mL for enterococcus bacteria. This translates to a percentage of high bacteria measured for each site as an indication of safety for recreational use.

MONTAUK	Site Type	2022 Sample Count	% High Samples, 2022
Ditch Plains: East of Jetty	Ocean Beach	26	8%
Fort Pond: Industrial	Pond	26	12%
Fort Pond: Ramp	Pond	26	23%
L I Sound: Fort Pond Bay at Navy Rd	Bay Beach	24	8%
L I Sound: Fort Pond Bay at Tuthill Rd	Bay Beach	23	4%
Lake Montauk: Causeway South	Harbor	12	17%
Lake Montauk: East Creek	Harbor	22	73%
Lake Montauk: Harbor	Harbor	10	20%
Lake Montauk: Little Reed Pond Creek	Harbor	25	20%
Lake Montauk: Nature Preserve Beach	Harbor	25	8%
Lake Montauk: South Beach	Harbor	23	22%
Lake Montauk: Stepping Stone	Harbor	19	32%
Lake Montauk: West Creek	Harbor	22	27%
Surfside Place: Ocean Beach	Ocean Beach	26	4%
Tuthill Pond	Pond	25	40%

#### TABLE 1. SUMMARY OF RESULTS FOR MONTAUK SITES IN 2022.

#### TABLE 2. SUMMARY OF RESULTS FOR EAST HAMPTON SITES IN 2022.

EAST HAMPTON	Site Type	2022 Sample Count	% High Samples, 2022
Accabonac Harbor: Louse Point Beach	Bay Beach	23	65%
Accabonac Harbor: Shipyard Ramp	Harbor	24	13%
EH Town Pond	Pond	16	13%
Fresh Pond: Beach	Bay Beach	24	8%
Fresh Pond: Creek	Creek	24	25%
Georgica Beach Assoc./ Third Jetty	Ocean Beach	25	0%
Georgica Pond Beach-side	Pond	24	13%
Georgica Pond: Cove Hollow Access	Pond	26	65%
Georgica Pond: Rte 27 Kayak Launch	Pond	26	50%
Hook Pond South	Pond	17	6%
Hook Pond: Dunemere Lane	Pond	19	74%
Napeague Harbor: East	Harbor	27	7%
Napeague Harbor: West	Harbor	26	8%
Northwest Creek: Ramp	Harbor	25	12%
Three Mile Harbor: Folkstone Drive	Harbor	23	9%
Three Mile Harbor: Head of the Harbor	Groundwater	25	12%
Three Mile Harbor: Settler's Landing	Harbor	25	0%

### TABLE 3. SUMMARY OF RESULTS FOR SOUTHAMPTON SITES IN 2022.

SOUTHAMPTON	Site Type	2022 Sample Count	% High Samples, 2022
East Quogue: Tiana Bay Park	Bay Beach	28	7%
East Quogue: Triton Lane	Ocean Beach	24	8%
East Quogue: Weesuck Creek Boat Ramp	Bay Beach	25	20%
Flanders: Long Neck Boulevard	Bay Beach	25	0%
Flying Point: Mecox Bay	Bay Beach	28	21%
Flying Point: Scott Cameron Beach	Ocean Beach	25	0%
Hampton Bays: Argonne Rd. East	Bay Beach	27	15%
Hampton Bays: Lynn Ave	Bay Beach	18	17%
Hampton Bays: Meschutt Beach	Bay Beach	24	0%
Hampton Bays: Old Ponquogue Bridge- Marine Park	Bay Beach	28	18%
Hampton Bays: Ponquogue Beach	Ocean Beach	27	0%
Hampton Bays: Red Creek	Pond	26	4%
North Sea Harbor, Noyac Rd.	Harbor	26	0%
North Sea: Big Fresh Pond	Pond	26	0%
North Sea: Little Fresh Pond North	Pond	27	19%
North Sea: Little Fresh Pond West	Pond	28	18%
North Sea: Towd Point	Bay Beach	26	8%
Noyac: Circle Beach	Bay Beach	28	4%
Noyac: Circle Beach Estuary	Harbor	27	0%
Sag Harbor: Havens Beach	Bay Beach	28	11%
Sag Harbor: Little Northwest Creek	Creek	25	44%
Sag Harbor: Long Beach	Bay Beach	28	0%
Sag Harbor: Windmill Beach	Harbor	28	39%
Sagg Main Beach	Ocean Beach	26	0%
Sagg Pond	Pond	28	43%
Southampton: Gin Lane/Bathing Corp.	Ocean Beach	23	0%
Southampton: Heady Creek	Creek	18	28%
Southampton: Old Town Beach	Ocean Beach	24	0%
Tuckahoe: Cold Spring Pond South	Pond	27	4%

### TABLE 4. SUMMARY OF RESULTS FOR NORTH FORK SITES IN 2022.

NORTH FORK	Site Type	2022 Sample Count	% High Samples, 2022
Cutchogue: Wickham Creek	Creek	21	5%
North Fork: Bay Ave, Mattituck	Bay Beach	27	0%
North Fork: S. Jamesport Ave.	Bay Beach	27	0%
Southold: Breezy Point Inlet	Bay Beach	28	7%
Southold: Conkling Point Inlet	Bay Beach	27	4%
Southold: Goose Creek	Creek	2	0%
Southold: Richmond Creek East	Creek	8	50%
Southold: Richmond Creek West	Creek	8	50%
Riverhead: Indian Island County Park	Bay Beach	28	0%
Riverhead: Wildwood Lake	Lake	23	9%

#### TABLE 5. SUMMARY OF RESULTS FOR STORMWATER SITES IN 2022.

STORMWATER SITES	Site Type	2022 Sample Count	% High Samples, 2022
Accabonac Harbor: E of Old Stone Hwy Culvert	Stormwater	24	21%
EH Fithian Lane: South Drain	Stormwater	26	65%
EH Methodist Lane Bioswale	Stormwater	9	89%
EH Village Green Bioswale	Stormwater	2	100%
Lake Montauk: Benson Dr. Culvert	Stormwater	10	60%
Northwest Creek: Culvert	Stormwater	15	53%
Surfside Place: Outfall Pipe	Stormwater	12	75%

\*Note: The bioswale on the East Hampton Village Green remained dry for most sampling days this year, as the native plants soak up the excess stormwater that previously flooded the area. We were only able to collect two samples from this site; both occasions were immediately after rainfall.

Our 2022 results are consistent with trends detected in previous years. Our water quality results continue to indicate that many sites on the East End frequently experience bacteria levels that exceed health standards. Ocean and bay beaches generally test clean, seldom showing high bacteria levels because of the high volumes of water exchange and mixing that occurs at these sites. However, bacteria can occasionally be elevated during the busy summer tourist season or after heavy rainfall or storm events, especially at bay beaches that are more sheltered or have less mixing than in the ocean.

The more chronically polluted locations include creeks, ponds, and outfalls that receive high volumes of stormwater runoff. Examples include the kayak launch on Georgica Pond in East Hampton Village, or the outfall pipe at Surfside Place in Montauk. Smaller stagnant water bodies with high populations of birds and waterfowl also show frequent high bacteria levels, as seen in Hook Pond at Dunemere Lane.

These trends are clearly demonstrated in the data analyses presented below in the Key Outcomes section. You can also visit <u>easternli.surfrider.org</u> for additional tables that show how bacteria rates have fluctuated at some of our sampling sites since 2016.

Photos: Summer 2022 interns sampling, by Surfrider Foundation Eastern Long Island and CCOM.



# **KEY OUTCOMES**

### SURFSIDE PLACE: OCEAN BEACH

This site is located on the ocean beach in front of the Mostrador Marram hotel, formerly Atlantic Terrace. It is a beautiful location where sunbathers and surfers can enjoy clean waters, as we only had one high result in 2022. However, there's potential for the ocean beach to be contaminated with stormwater from the outfall pipe that drains from the dune (see below).



### <u>Surfside Place: Ocean Beach Results</u>



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### SURFSIDE PLACE: OUTFALL PIPE

What was once a creek that received runoff from the nearby properties, is now channeled into an outfall pipe that discharges onto the same beautiful beach described above. Samples can only be collected here when stormwater flows through the pipe after it rains, with a 75% chance of bacteria concentrations being unsafe for recreation, people and especially children should refrain from entering this water and use caution if it is flowing enough to reach the ocean.

**75%** OF OUTFALL SAMPLES IN 2022 EXCEEDED HEALTH STANDARDS FOR BACTERIAL COUNTS

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#### Surfside Place: Outfall Pipe Results

# **KEY OUTCOMES**

## FLYING POINT: SCOTT CAMERON BEACH

Located at the west end of Bridgehampton's Dune Road, this is a popular ocean beach with a surf break depending on shifting sand bars. In 2022, all samples from this site were clean. However, in the adjacent Mecox Bay (see below) bacteria levels are frequently high and there is exchange of water between the ocean and the bay when the cut is open that could potentially influence water quality at the beach.



Data Samplad

#### Flying Point: Scott Cameron Results

## FLYING POINT: MECOX BAY

Mecox Bay is a large brackish pond that connects to the ocean at Flying Point. Since colonial times, a seasonal cut has been made in the beach to open Mecox Bay to increase water exchange with the ocean and to reduce water levels within the bay. When the cut is open, the warm shallow water that flows back and forth with the tide is attractive for families with small children to wade or swim in, but with high bacteria levels being measured in 21% of the samples collected, this could be putting their health at risk. We recommend that people stay out of the water in the cut when it is draining from the bay to the ocean, especially after it has rained. **2 1 0**/0 OF MECOX BAY SAMPLES IN 2022 EXCEEDED HEALTH STANDARDS FOR BACTERIAL COUNTS



#### Flying Point: Mecox Bay Results

Date Sampled

# **KEY OUTCOMES**

### SAG HARBOR: WINDMILL BEACH

This beach is located within the breakwater of Sag Harbor Bay in Sag Harbor Village. While not a swimming beach, it is a popular place for families to picnic, and children often splash around in the water. Located at the bottom of Main Street, this beach receives a lot of runoff from the main commercial area of Sag Harbor when it rains. In 2022, high bacteria levels were measured in 39% of the samples collected at this site, a significant increase from the previous years. We would caution against entering the water here.

**39%** OF WINDMILL BEACH SAMPLES IN 2022 EXCEEDED HEALTH STANDARDS FOR BACTERIAL COUNTS



#### Sag Harbor: Windmill Beach Results

Date Sampled

 Pole enjoying Windmill Beach. Photo: Surfrider Foundation Eastern Long Island Chapter

# **STOP SEWAGE POLLUTION**

Outdated cesspools and septic systems are the biggest sources of water pollution on the East End of Long Island. Neither system adequately treats sewage from our homes or businesses, but instead, they allow nitrogen and fecal pathogens to leach into our groundwater and surface waterways. This puts human health at risk and has caused massive problems with harmful algal blooms in our bays and coastal ponds since sewage pollution carries excess nutrients to our waters. Stormwater runoff also carries animal waste from pets and wildlife into our surface waters.

New advanced treatment septic systems are now available and approved for use in Suffolk County. These advanced systems provide better treatment of wastewater than regular septic systems, including a nitrogen removal rate of up to 90%. There are several incentive programs available to help encourage, require, and fund the installation of these new systems on Eastern Long Island.

Suffolk County residents can receive up to \$30,000 towards their septic upgrades through a combined county and state incentive program. In 2022, these grants became tax-exempt. To find information on how to apply for these grants, visit the Reclaim Our Water Septic Improvement Program website: reclaimourwater.info/Septic-Improvement-Program

Homeowners who live in the Towns of East Hampton or Southampton are eligible for an additional non-taxable \$20,000 - \$25,000 grant available through the East End Septic Improvement Program. Email septicrebate@ehamptonny.gov or septicrebate@southamptontownny.gov for more information.

Glowing IDEXX trays containing samples and Enterolert, a reagent which glows in the presence of enterococcus bacteria. The sample to the left is a control, and the other two exceeds the threshold for safe recreation. Photo: Peconic Baykeeper

# **CLEAN WATER SOLUTIONS**

All three NGOs that collaborate to perform local Blue Water Task Force water testing also lead restoration projects to help improve water quality conditions on Eastern Long Island.

#### **FLOATING WETLANDS**

2022 was the second year of the Concerned Citizens of Montauk's floating wetland remediation project in Fort Pond. Each year over 7,200 native plants, specifically chosen for their ability to thrive in Fort Pond's environment, are secured in custom mats called Beemats Floating Wetlands. As the plants mature, their roots uptake excess nitrogen and phosphorus from the pond. The goal is to reduce the nutrient load in the pond and consequently reduce the extent and severity of the harmful algal blooms (HABs) which have plaqued Fort Pond for years. Nutrient analysis of the plants from 2022 is currently being done by the Gobler Lab at Stony Brook University in Southampton.

Photo: Volunteers assisting with floating wetland install, by CCOM.

#### **OYSTERS IN ACTION**

With permission from the Southampton Town Trustees, Peconic Baykeeper has operated a Community Oyster Restoration Program in Southampton's Cold Spring Pond since 2020. This project is designed to grow up to 150,000 oysters per year for water quality improvement and shellfish enhancement in Southampton Town Waters. Peconic Baykeeper has been scaling up every vear to reach that annual goal. Since the project's inception, approximately 135,000 oysters have been grown and seeded in Southampton Town. In addition to water quality improvement and shellfish enhancement, the program serves as an outreach hub with volunteers helping with maintenance and educational programs offered throughout the field season. Those interested in participating can email Peconic Baykeeper at info@peconicbaykeeper.org.

Photo: Pete Topping with oysters, by Peconic Baykeeper.





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# **CLEAN WATER SOLUTIONS**

#### **OCEAN FRIENDLY GARDENS**

Surfrider Foundation Eastern Long Island is addressing runoff that flows into Hook Pond with an Ocean Friendly Garden Bioswale installed at Methodist Lane in East Hampton. This site was formerly a large grass lawn that frequently flooded as it receives large volumes of stormwater and road runoff. In the spring of 2021, over 15,000 native plants and trees were planted to transform this public space into an oasis of native plants and trees that provide wildlife habitat important for local bird and pollinator populations and help beautify the community. In 2022, we have seen the amount of standing water on-site has been significantly reduced even after heavy rain events. By reducing the flow of polluted runoff, the garden is also helping to reduce the inputs of nutrients, pathogens and sediment into Hook Pond. Our chapter is currently bringing different community groups to this site to learn about its benefits. We are also working with Piazza Horticultural and the Ladies Village Improvement Society board to develop a more sustainable lawn maintenance plan which will reduce water waste even further.

#### HOW YOU CAN HELP

- 1. Upgrade your septic to an Advanced Treatment System. This is the most important action that residents can take to help stop water pollution throughout Suffolk County.
- 2. Use Ocean Friendly Gardening practices to maintain your yard. Skip chemical fertilizers and pesticides. Plant more natives.
- 3. Pick up your pet's waste.
- 4. Stay safe at the beach:
- Check water quality results before heading to the beach.
- Swim at ocean or bay beaches with lifeguards on duty.
- Avoid swimming 24-48 hours after it rains, especially in ponds and enclosed bay and lake sites. Keep your kids out of streams and runoff at the beach.
- Do not enter the water where there are Blue-Green Algae Bloom signs posted, and do not let your dogs in the water either!
- Rinse with freshwater before you eat or leave the beach.

Putteers clean up litter from our. Ocean Friendly Garden on Methodist Lane in East Hampton.

## THANK YOU TO OUR SUPPORTERS

Our 2022 results are made possible thanks to generous donations from:

- Town of East Hampton Community Preservation Fund, Water Quality Improvement •
- The Kate W. Cassidy Foundation
- Long Island Community Foundation
  Southampton Bath and Tennis Club Charitable Fund
- The Walrath Foundation

We'd also like to thank our dedicated volunteers for their continued efforts to inform our community about our local water quality.

Harvest moon at Bay Avenue in Mattituck. Photo: Peconic Baykeeper.



This report is brought to you by the Surfrider Foundation Eastern Long Island Chapter.

easternli.surfrider.org

Photo of Georgica Pond by Linsey's Lens Photography.