

2023

# Clean Water Report



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# Clean Water Initiative

Americans love the beach. More than 100 million beachgoers flock to U.S. beaches every year to enjoy the sand, sunshine, and water. Not only do beaches provide recreation, leisure, and social opportunities, but they are also the foundation of valuable coastal tourism and ocean recreation that provide 2.5 million jobs nationwide and contribute nearly \$140 billion in gross domestic product to the national economy each year ([oceanomics.org](http://oceanomics.org)).

Since the Surfrider Foundation was founded in 1984, improving coastal water quality has been one of our top priorities. Through our Clean Water Initiative, we strive to protect water quality and reduce pollution so it is safe for you and your family to surf, swim, and play in our ocean and coastal waterways. To meet this goal, Surfrider chapter volunteers are building awareness of water pollution problems and advocating for solutions to protect clean water and healthy coastal ecosystems.

**Through our Clean Water Initiative, we strive to protect water quality and reduce pollution so it is safe for you and your family to surf, swim, and play in our ocean and coastal waterways.**

**The Blue Water Task Force made an impact in 2023 with an increase in labs, sampling sites, and water quality tests performed.**



**57**

BWTF Labs

**567**

Sampling Sites

**9,538**

Samples Collected



# Threats

Despite the high value of clean beaches, coastal water quality is threatened by stormwater, urban and agricultural runoff, as well as sewage and industrial discharges. Nearly 10 trillion gallons of untreated stormwater runoff flow into U.S. waterways every year, carrying a cocktail of pollutants including road dust, oil, animal waste, fertilizers, and other chemicals. Years of neglect and underfunding have also left America's outdated wastewater infrastructure in disrepair.

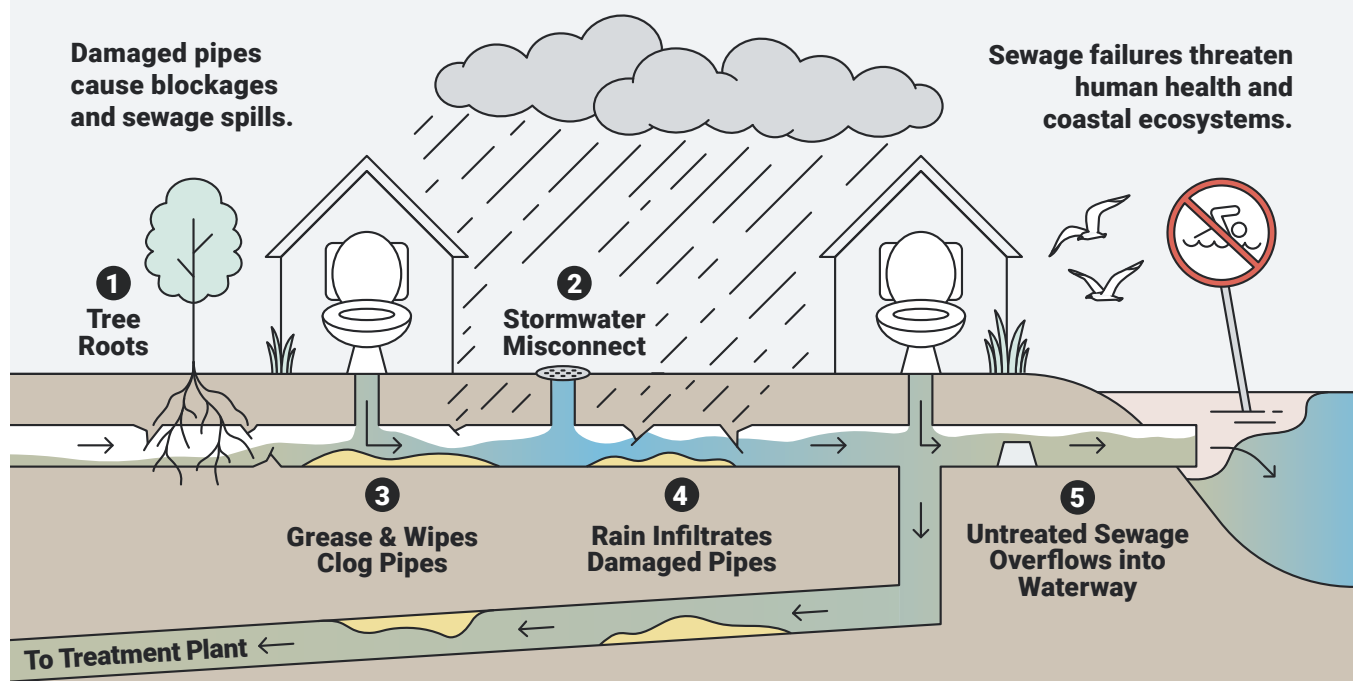
Sewage spills and failing wastewater infrastructure threaten coastal water quality by discharging raw and undertreated sewage into our local waterways and ocean. In fact, sewage spills and infrastructure failures release over 900 billion gallons of untreated sewage into surface waters every year! Sewage can contain bacteria, viruses, and parasites that make people sick with gastrointestinal symptoms, rashes, skin and eye infections, flu-like symptoms, and worse.

**Sewage spills and infrastructure failures release over 900 billion gallons of untreated sewage into surface waters every year.**

Sewage and stormwater runoff also pollute waterways with excess nutrients, wreaking havoc on coastal ecosystems by fueling harmful algal blooms that put human health at risk and result in fish kills and coral reef die-offs.

The growing threats from climate change to our coasts, including sea level rise and more frequent extreme weather events that generate massive amounts of stormwater, are already causing water infrastructure failures and sewage spills. Significant investments need to be made now to prepare our coastal communities to become more resilient and to better manage water resources.

## Poorly Maintained Sewers Discharge Untreated Sewage into Local Waterways



# Surfrider's Approach

Everyone deserves access to clean water to surf, swim, and play in. The Surfrider Foundation is taking a multi-tiered approach to tackle ocean pollution problems. We advocate for strong laws and sufficient funding to monitor and protect water quality. We ensure that people have access to the information they need to protect themselves and the health of their families when recreating at the beach and in our coastal waterways. When we see information gaps in government testing programs that leave public health unprotected, we seek to meet those community needs with our Blue Water Task Force water quality monitoring program.

Through a large network of volunteer-led chapters, we are building awareness of pollution problems and bringing together local stakeholders to protect clean water. Our Ocean Friendly Gardens program is educating communities and local officials on the actions that can be taken in our yards and public spaces to reduce the amount of polluted runoff that flows into our local waterways and out to the ocean. When more collaborative approaches fail, the Surfrider Foundation has the expertise to bring issues to the courts to ensure proper enforcement of the Clean Water Act to protect clean water for all people.



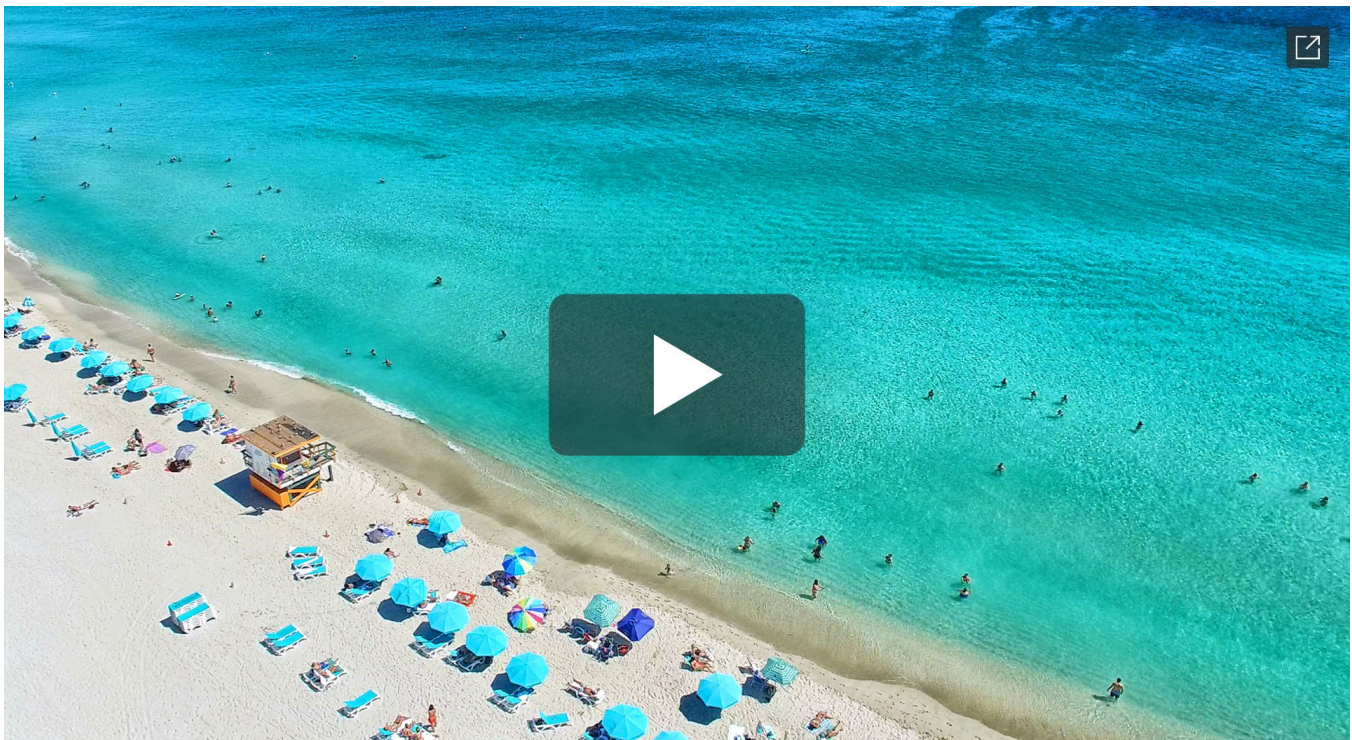
Left: O'ahu Chapter Blue Water Task Force coordinator, Daniel Amato, collecting a water sample. Top right: Beach closed sign at Imperial beach in San Diego, CA. Bottom Right: Surfrider's volunteers met with their elected officials in Tallahassee to advocate for bills and funding to protect clean water.

# Campaigns for Clean Water

In coastal states around the country, Surfrider chapters are increasingly leveling up their local campaigns to address inconsistencies and fill gaps in their state beach water quality monitoring programs. In Florida, for example, Surfrider has advocated for the Safe Waterways Act to improve how the public is warned of sewage spills and high bacteria levels at the beach so they can avoid unnecessary risk of illness. This bill, which passed the state legislature and is awaiting the Governor's signature (at the time of this report going to print), would give authority to the Florida State Department of Health to close beaches during pollution events to protect public health. It also requires uniform posting of swim advisories and high bacteria levels with signs at the beach where they can be easily seen by people accessing the water. You can learn more about the water quality conditions and public health impacts that motivated Surfrider to advocate for the Safe Waterways Act in Florida in the film below.

In Hawai'i, Surfrider's [Blue Water Task Force \(BWTF\)](#) programs on O'ahu, Kaua'i and Maui have long measured

high bacteria levels where people enjoy a wide range of recreational activities in the water, but many of these sites are not tested by the beach program run by the State Department of Health (DOH). For many years, Surfrider has worked on building support in the Hawai'i state legislature to mandate more robust testing coverage of beaches by the state's program in addition to improving their public notification system – aka signs posted on the beach. While the bill we were supporting this year did not pass, we were able to negotiate a compromise with the DOH to meet the intent of the bill to sample beaches during both wet and dry weather. This will be a great improvement over their current practice of suspending all sampling while Brown Water Advisories are in place. Another bill that we supported to encourage and fund the replacement of cesspools with more advanced wastewater treatment technologies however did pass, and we will continue to work with our partners to explore additional avenues to reduce the impacts of cesspools that routinely pollute Hawai'i's coastal waters.



Hear from a Surfrider staff member who contracted a staphylococcus infection in Florida where tens of millions of gallons of sewage overflow into the ocean every year and learn what Surfrider's Blue Water Task Force program is doing to protect clean water.

At the federal level, Surfrider has long advocated for sufficient funding and proper implementation of the BEACH Act, which we initially helped pass through Congress in 2000. This bill established national standards and authorized the grant program administered by the Environmental Protection Agency (EPA) to help fund beach water quality monitoring and public notification in coastal states, tribes, and territories. While the BEACH Act grants program is authorized at \$30 million, annual funding awarded by Congress has hovered close to \$10 million for over 20 years. Chronic underfunding has forced states to prioritize which beaches to monitor, reduce sampling frequency, and limit beach seasons in order to stretch their federal grant dollars as far as possible. While we have seen small advances in the past two years as program funding rose above \$10 million, it dropped to \$9.75 million in the federal budget passed for 2024. Surfrider will continue to advocate for Congress to raise funding levels for this critical public health program so states can run more equitable and protective beach programs.

In Southern California, we are working across jurisdictions and even borders to advocate for wastewater infrastructure solutions to reduce contamination in the international watershed of the Tijuana River. The Surfrider San Diego Chapter has been raising the alarm on the egregious public health and environmental justice crisis that has been affecting communities on both sides of the U.S./ Mexico border for decades. After a successful lawsuit settlement and public process to vet potential solutions in 2021 and 2022, Surfrider and our coalition partners were able to elevate this issue during this past year to galvanize support from the Biden administration and Congress to make significant investments toward funding needed infrastructure upgrades. You can read more about the impact that this pollution is having on local communities and what we hope to accomplish this coming year in the case study at the end of this report. The Surfrider Foundation will continue the fight to ensure that our beaches and coastal waters are clean and safe for all people to enjoy for generations to come.



Surfrider activists fight for clean water at local, state, and federal levels to ensure that our beaches and coastal waters are safe for all people to enjoy for generations to come.

# Clean Water Programs

This 2023 Clean Water Report tracks the progress of the Surfrider Foundation's Blue Water Task Force and Ocean Friendly Gardens programs. It also shares case studies demonstrating how Surfrider chapters apply these programs to protect public health, identify water quality concerns, and bring together local communities to implement lasting solutions.

**The Surfrider Foundation is taking a multitiered approach to tackle ocean pollution problems.**



The Blue Water Task Force is Surfrider's volunteer water quality monitoring program that provides critical information to protect public health at the beach. Surfrider chapters use this program to raise awareness of local pollution problems and bring together communities to implement solutions.

[bwtf.surfrider.org](http://bwtf.surfrider.org)

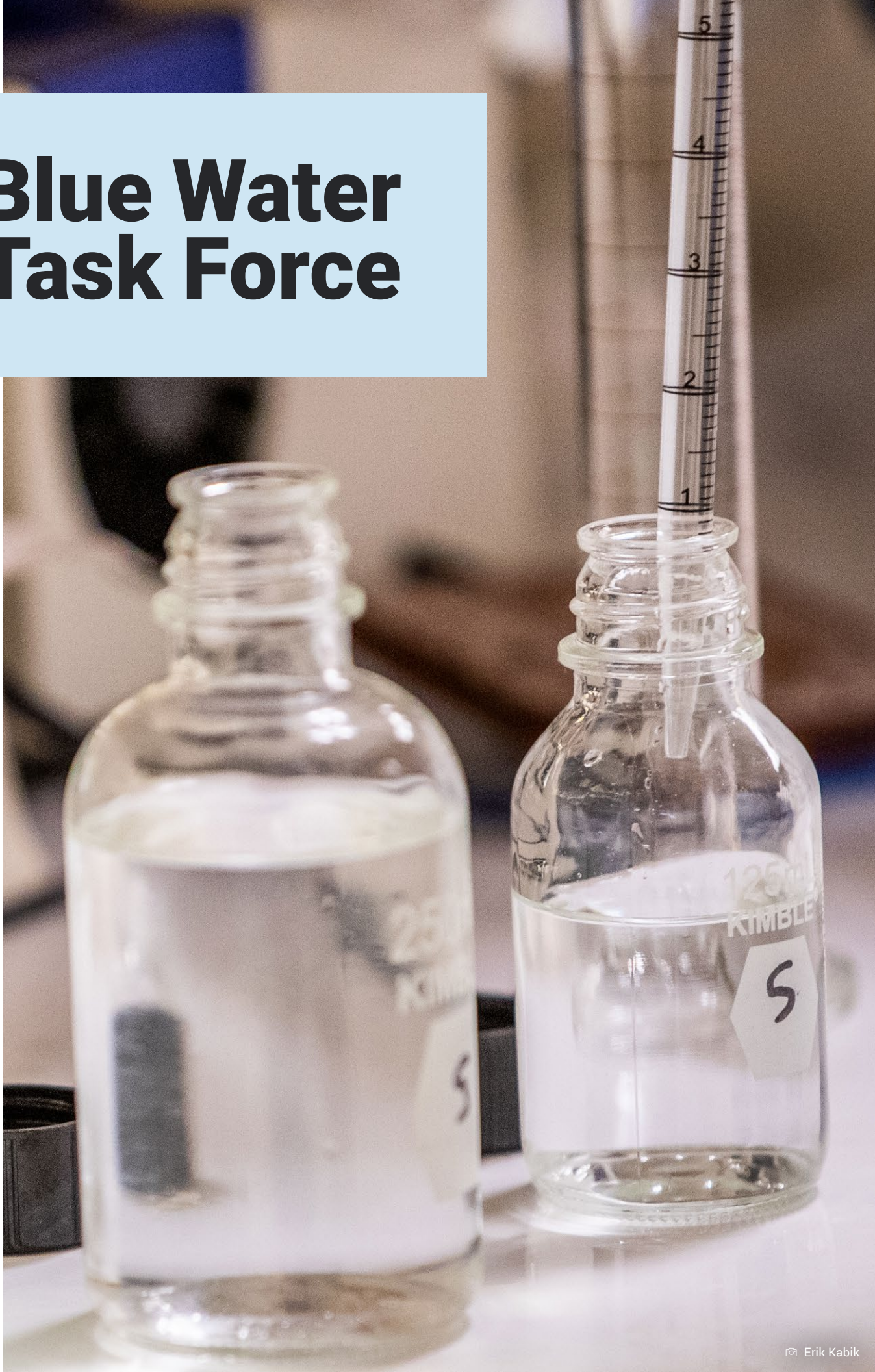


Ocean Friendly Gardens is Surfrider's sustainable landscaping and education program that provides beautiful, nature-based solutions to reduce polluted runoff and support resilient coasts.

[ofg.surfrider.org](http://ofg.surfrider.org)



# Blue Water Task Force



# Program Overview

Since the inception of the Blue Water Task Force (BWTF) program 30 years ago, Surfrider volunteers have been out in their communities testing water quality at our beaches. Now, as a large national network with 57 chapter-led labs, the BWTF is measuring bacteria levels at more than 550 ocean, bay, estuary, and freshwater sampling sites across the country. Most chapter water testing programs are designed to fill in the gaps and extend the coverage of state and local agency beach monitoring programs.

**With 57 chapter-led labs, the BWTF is measuring bacteria levels at more than 550 ocean, bay, estuary, and freshwater sampling sites across the country.**

Surfrider volunteers are not only testing beaches that are not covered by agencies, but they are also monitoring potential sources of pollution, such as stormwater outlets, rivers, and creeks that discharge onto our beaches. The BWTF is in operation all year round, providing public health protection through the off-season when lifeguards leave the beach and health officials stop collecting

water samples. This approach to extend public health protection at our beaches and coastal waterways is described in the case study featuring the Surfrider Eastern Long Island Chapter's clean water programs at the end of this report.

In addition to protecting you and your family's health at the beach, the Blue Water Task Force is also cultivating the next generation of coastal defenders. Students help to collect and process water samples for more than half of our BWTF programs nationwide and gain valuable field and laboratory experience along the way. For instance, the Surfrider South Bay Chapter in Los Angeles, California, engages over 300 students from fourteen local schools in the basics of water quality science and local pollution concerns through their [Teach & Test](#) program. A smaller group of 25 core student leaders participate in every sampling event and develop an in-depth understanding of water quality monitoring methodology. Many of these former students have gone on to pursue careers in conservation and environmental science fields. You can learn more about the benefits of this experience from a [student who grew into a leadership role](#) with the program during her high school career.



All BWTF test results are compared to state water quality standards set to protect public health in recreational waters and are posted on Surfrider’s website. Chapters also share their water quality data through social media, email, and community presentations to provide beachgoers with the up-to-date information that they need to know where it’s safe to surf, swim, and play in the water.

When our BWTF results demonstrate long-term or seasonal trends of elevated bacteria levels, our chapters apply their data to build community awareness and motivate local decision-makers to take action to find and fix the sources of pollution. For example, a newly formed partnership between [Kingdom Pathways](#) and the Surfrider O’ahu BWTF resulted in the addition of three testing sites in Pōka’ī Bay where people living in the town of Wai’anae frequently complained of getting sick after going into the water. The resulting data was used by the community and their elected officials to successfully advocate for state funding to address a failing breakwater that is restricting circulation in the bay and keeping pollution close to shore. The Surfrider O’ahu Chapter is continuing to strengthen its community ties in Wai’anae by helping to

establish a new BWTF lab at the local high school this year and conducting in-depth studies of the conditions that influence water quality in Kaupuni Stream, which drains into Pōka’ī Bay. You can learn more about this community work in the film below.

Across the country, numerous Surfrider chapters are applying their water quality data to inform pollution source tracking studies and identify locations where solutions are needed. While it can take many years from the first discovery of new pollution concerns until enough political will is generated to drive solutions, the Surfrider Foundation is in it for the long haul. Surfrider’s Blue Water Task Force volunteers are committed to measuring water quality conditions at the beaches they love and rallying their communities around protecting clean water for future generations.

To best protect yourself and your family’s health, always check local water quality conditions before you head to the beach. All of Surfrider’s water test results are available on the [BWTF website](#) or you can access your local agency beach advisories at [Beachapedia.org](#).



Hear from Surfrider Activists in Pōka’ī Bay about the water quality challenges in their community and learn how the Blue Water Task Force in Hawai’i is helping sound the alarm of health concerns caused by sewage pollution.

# Program Activity and Results

During 2023, 57 BWTF labs processed 9,538 water samples collected from 567 distinct sampling sites. Once again, Surfrider Foundation chapters broke all previous testing records with more labs, more sampling sites, and more water quality tests performed than ever before. During 2023, the San Francisco Chapter in California and the Cape Fear Chapter in North Carolina both launched new BWTF programs. You can learn more about these new programs on [Surfrider's coastal blog](#).

**Once again, Surfrider Foundation chapters broke all previous testing records.**

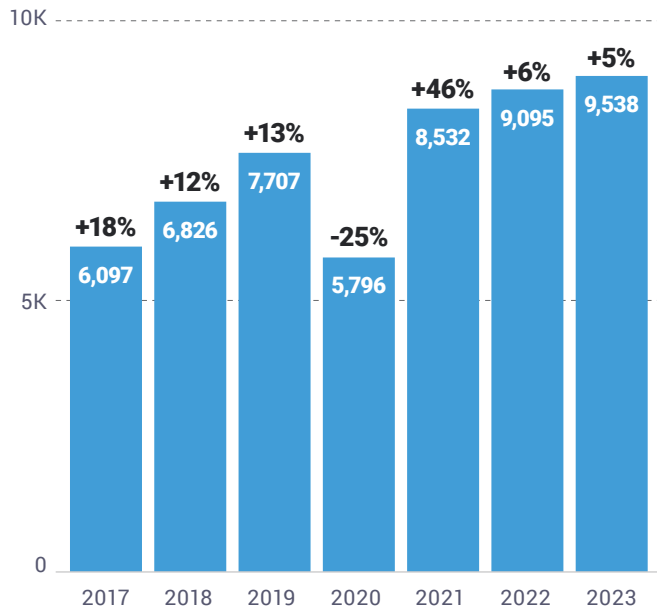


**57** BWTF Labs    **567** Sampling Sites    **9,538** Samples Collected

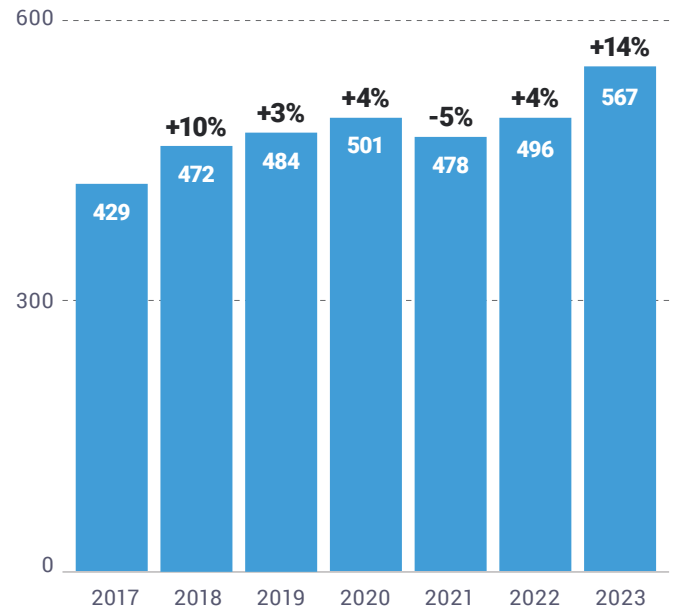


# Annual Growth in Water Testing

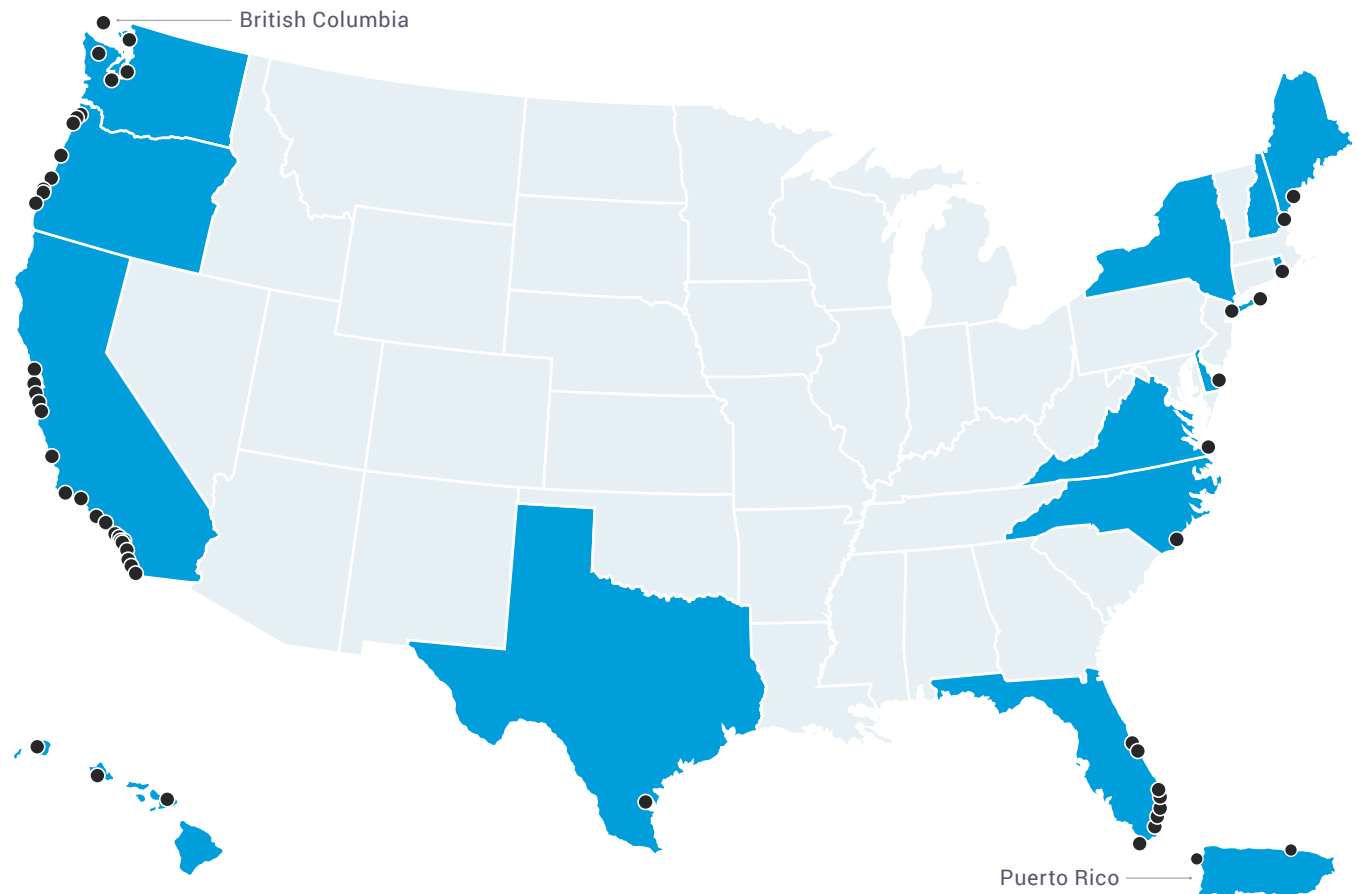
Number of Tests Per Year



Number of BWTF Sites Per Year



## Water Testing Lab Locations



# Water Tests Performed in 2023

**9,538**  
Total Tests

## Northeast



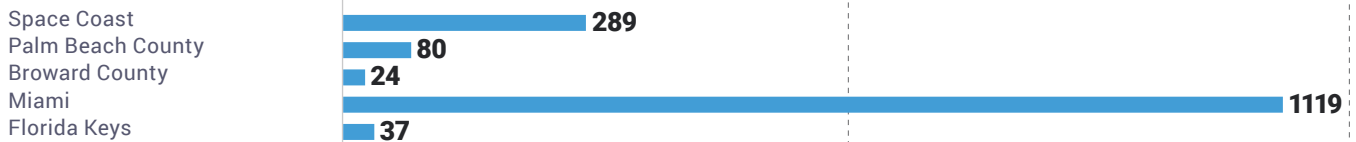
## Mid-Atlantic



## Southeast



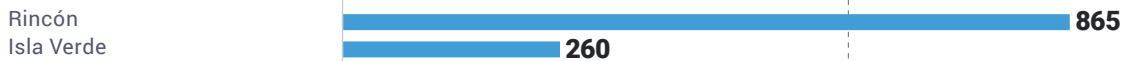
## Florida



## Texas



## Puerto Rico



## Hawai'i



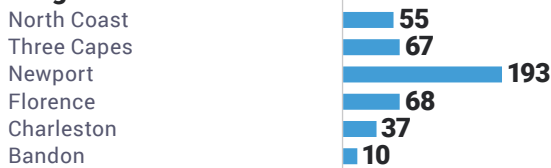
## British Columbia



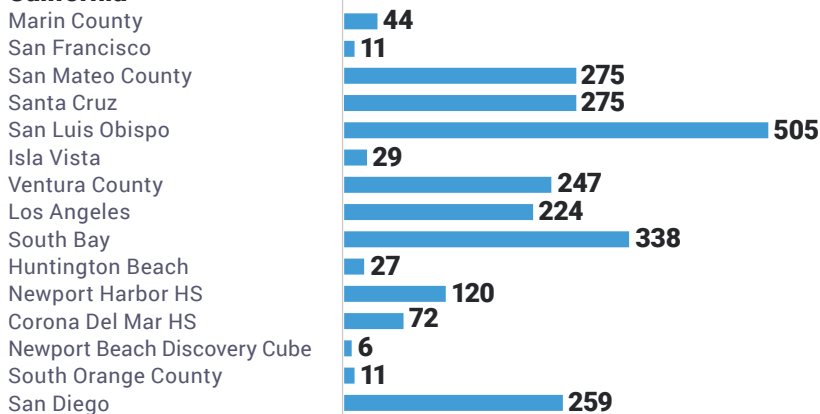
## Washington



## Oregon



## California

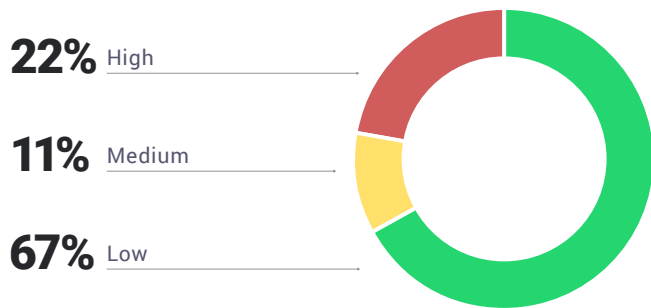


## Costa Rica



0 600 1200

# Bacteria Levels Measured in 2023



**64% of the beaches tested yielded at least one high bacteria result that exceeded state health standards in 2023.**

The collective results from all the participating BWTF labs have remained relatively constant over the years. Of the 9,538 water test results reported in 2023, 67% indicated low bacteria levels, 11% indicated medium bacteria levels, and 22% measured high bacteria levels that exceed state standards that protect public health in recreational waters. The percentage of water samples that yielded high bacteria rates was up slightly from the year before (19% in 2022), but probably more noteworthy to a beachgoer is the fact that 64% of the beaches tested (362 of the 567 sampling sites) yielded at least one high bacteria result that exceeded state health standards. This shows the importance of

regular water quality monitoring at the beach to protect public health and promote safe recreation. You can find the Beach Action Value, or water quality criteria, used at your local beach to trigger swim advisories or beach closures in Surfrider’s Beachapedia article, [Beach Water Quality Monitoring Programs in Coastal States](#).

The majority of the water samples that failed to meet health standards were collected from freshwater sources, such as rivers, creeks, and marshes, which are influenced by stormwater runoff, or at beaches near these outlets. These results are consistent with national trends, which show that stormwater runoff is the number one cause of beach closures and swimming advisories in the U.S. Stormwater can wash chemicals and other pollutants from streets and lawns into local waterways and down to the beach. In addition, stormwater and flooding after rain events can cause wastewater infrastructure, such as cesspools, septic systems, and sewers, to fail and release untreated sewage into local waterways and the ocean. Across the country, Surfrider’s Blue Water Task Force programs are measuring high bacteria levels at many beaches and recreational waterways where stormwater runoff and failing sewage infrastructure are polluting the water. In many instances, no one else is monitoring these sites, or agency sampling seasons are restricted to only a few months during the summer. This further underscores the importance of community-generated information, like Surfrider’s BWTF data, to help ensure safe recreation and restore clean water in coastal communities.



Avila Beach, one of the most popular beaches in San Luis Obispo, CA, is influenced by high bacteria levels in San Luis Creek.

The following table highlights ten beaches from the East Coast, West Coast, Puerto Rico, and Hawai'i where Surfrider chapters are consistently measuring high bacteria levels. The table shows the percentage of samples collected at each beach that resulted in bacteria counts that exceeded the state health standard for recreational waters.

## Priority Blue Water Task Force Beaches

Beach/Location	High Bacteria Rate
<b>Flying Point: Mecox Bay</b> <u>Southampton, New York</u>	<b>46%</b>
<b>Ballard Park</b> <u>Melbourne, Florida</u>	<b>37%</b>
<b>Park View Kayak Launch</b> <u>Miami Beach, Florida</u>	<b>73%</b>
<b>Playa Crashboat</b> <u>Aguadilla, Puerto Rico</u>	<b>26%</b>
<b>South Sound Thea Floss Floating Dock</b> <u>Tacoma, Washington</u>	<b>47%</b>
<b>Linda Mar Beach</b> <u>Pacifica, California</u>	<b>54%</b>
<b>San Luis Creek Mouth</b> <u>San Luis Obispo, California</u>	<b>35%</b>
<b>Imperial Beach</b> <u>San Diego, California</u>	<b>100%</b>
<b>Kahalu'u</b> <u>Kahalu'u, O'ahu, Hawai'i</u>	<b>86%</b>
<b>Nāwiliwili Stream at Kalapakī Bay</b> <u>Līhu'e, Kaua'i, Hawai'i</u>	<b>100%</b>

\*High Bacteria Rate = Percentage of samples collected that fail to meet the state health standard for recreational waters

**These priority beaches represent a variety of recreational waters and access points that are important to local communities, yet water quality conditions could be putting public health at risk.**

This translates to a percentage of high bacteria measured for each site as an indication of safety for recreational use. These priority beaches represent a variety of recreational waters and access points that are important to local communities, yet water quality conditions could be putting public health at risk.

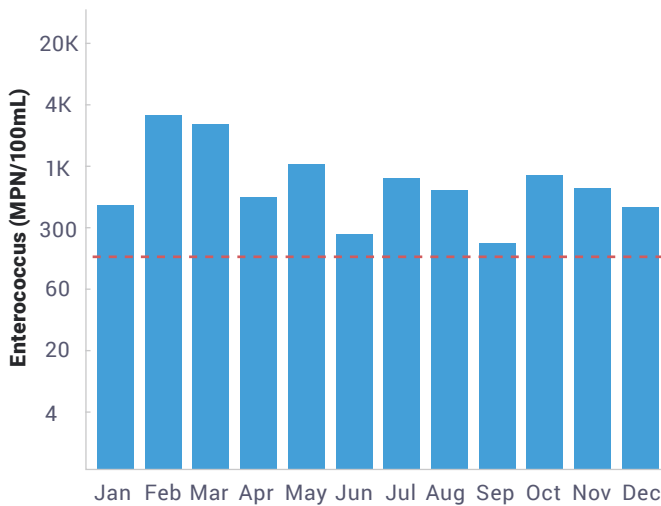
From a coastal pond on Long Island, New York, to urban beaches on the shores of the Puget Sound in Washington, and the Indian River Lagoon in Florida, the BWTF is filling in gaps to provide critical health information to beachgoers and park users. For example, Park View Kayak Launch in Miami, Florida, Ballard Park in Melbourne, Florida, and Playa Crashboat in Aguadilla, Puerto Rico, are all popular spots for families to enjoy a fun day at the beach or in the water, but they are also all affected by old, failing sewage infrastructure. Families with small children also enjoy swimming and paddling in the San Luis Creek where it flows across Avila Beach in San Luis Obispo, California, but high bacteria levels could be putting their health at risk. Further up the California coast in the City of Pacifica, Linda Mar Beach is a very popular surf break located at the mouth of the consistently polluted San Pedro Creek.

On the island of O'ahu in Hawai'i, the chapter's sampling site at Kahalu'u is used as an access point to go snorkeling, boating, and fishing in Kāne'ohe Bay. The watershed has a high concentration of cesspools that contribute to pollution and Kahalu'u is on the receiving end of a stream that brings stormwater runoff down to the beach.

Two BWTF sampling sites have the dubious distinction of failing to meet health standards every single time they were tested by Surfrider in 2023. The San Diego Chapter collects samples near the pier in Imperial Beach, California, close to the U. S./Mexico border. Local health authorities closed this Pacific Ocean beach to swimming for 322 days in 2023 to protect the public from exposure to sewage-related pathogens. Unfortunately, these closures don't fully prevent people from getting sick as some toxins are aerosolizing and contaminating the air in Imperial Beach and other nearby border communities. You can learn more about this decades-long pollution problem and what the Surfrider San Diego Chapter and their community partners are doing to address this public health emergency in the case study at the end of this report.



# A Closer Look: Nāwiliwili Stream, Kauaʻi



-- High bacteria as per Hawaiʻi state water quality standard of 130 MPN/100 mL

## Every single sample the chapter has collected in Nāwiliwili Stream since 2016 has failed to meet safe water quality guidelines!

On the island of Kauaʻi in Hawaiʻi, the Nāwiliwili Stream flows across the beach and discharges into Kalapakī Bay. Families with small children often play in the shallow, calm waters of the stream unaware of the pollution risks. The stream is not posted by the state health department as they only monitor water quality in front of the resort further down the beach. In 2023, the Surfrider Kauaʻi BWTF frequently measured high bacteria levels 4-8 times higher than the state health standard. In fact, every single sample the chapter has collected in Nāwiliwili Stream since 2016 has failed to meet safe water quality guidelines! Surfrider Kauaʻi shares their test results widely to build awareness of this pollution problem and is advocating for a sign to be placed at the beach to warn families with children that regularly swim and play in the mouth of this stream. The chapter even tested Nāwiliwili Stream and 23 other streams across the island for the presence of sucralose – an artificial sweetener used to indicate the presence of human sewage in waterways. Their findings point to cesspools and other potential sources of human sewage that need to be addressed to protect safe recreation downstream.



Families with small children often play in the shallow, calm waters of Nāwiliwili stream unaware of the pollution risks.

On the positive side, Playa Lala in Rincón, Puerto Rico, did not make the top list of polluted beaches this year as its high bacteria rate dropped from 24% in 2022 to 16% in 2023. The chapter has developed a team of community volunteers who are actively ‘watchdogging’ sewer failures in this watershed and report problems promptly to the local sewer authority. This community vigilance has prompted the authority to ensure adequate backup pumps and emergency generators in their sewage systems in Rincón and Aguada, whereas avoidable interruptions in service still happen far too often elsewhere in Puerto Rico. The chapter hopes to see water quality trends improve as they continue to monitor this beach, but fear explosive and unregulated growth along the coastline will continue to overburden wastewater infrastructure.

At every beach the Blue Water Task Force tests, chapter volunteers are working hard to build awareness of the local pollution problems and to provide their communities with the information needed to know where it’s safe to surf, swim, and play in the water. The ultimate goal is to find and fix the sources of pollution and to restore clean water – because no one should get sick from spending time at the beach. This is what is driving Surfrider’s efforts to protect water quality across the nation. We want to ensure that our beaches and ocean are clean and safe for all people to enjoy for generations to come.

# Ocean Friendly Gardens



# Program Overview

Surfrider's Ocean Friendly Gardens (OFG) program offers simple and beautiful nature-based solutions to protect clean water and support resilient coasts and communities. Surfrider chapters use this program to build awareness of the connection between how we care for our yards and public spaces, and the resulting health and resilience of our local waterways and beaches.

The Ocean Friendly Gardens program champions nature-based solutions, such as rain gardens, bioswales, and native plant installations that emulate natural watersheds and healthy habitats. Through this program, we are building community capacity to implement and drive broad, long-lasting solutions to urban runoff and to restore biodiversity in coastal watersheds. By returning nature to our urban spaces, OFGs are also supporting climate resiliency goals by sequestering carbon, reducing air and water pollution, and avoiding climate emissions from energy-intensive maintenance practices. Learn more about the benefits of Ocean Friendly Gardens at [Surfrider.org](https://www.surfrider.org).

The OFG program takes a watershed approach to protect clean water and prevent pollution from reaching the ocean. Whether you live inland or at the beach, your yard is a mini-watershed that can protect clean water through CPR (Conservation, Permeability and Retention). We all live upstream from the ocean!

## CPR

### Conservation

Saving water and creating wildlife habitats with native and climate-appropriate plants.

### Permeability

Building healthy, living soil with compost and mulch to sponge up water and filter out pollutants.

### Retention

Storing rainwater in the landscape to rehydrate watersheds and reduce local flooding concerns.



# Program Activity

Surfrider chapters are educating their communities about the water quality problems created by stormwater runoff and conventional landscaping practices. They are also promoting sustainable gardening and lawn care practices that provide easy and inexpensive ways for everyone to take action to support clean water and climate resiliency at home and in their neighborhood.

Each chapter designs and implements its OFG program to meet local needs and leverage available resources. Keep reading to learn more about how the chapters in Los Angeles, California, and Eastern Long Island, New York, are implementing their Ocean Friendly Gardens programs to spark positive change in their communities.

**Each chapter designs and implements its Ocean Friendly Garden program to meet local needs and leverage available resources.**



# Case Studies



# Los Angeles County, CA

## **Building partnerships and spreading Ocean Friendly Gardens to protect clean water and resilient communities in Southern California.**

Healthy oceans, waves, and beaches rely on healthy watersheds. In urban areas, much of the natural environment has been paved over, flattened for development, and channelized to move water off the land as fast as possible. In Los Angeles County, this pattern creates a staggering 151 billion gallons of urban stormwater runoff per year that floods streets and neighborhoods and flushes pollution out to the ocean. If local rainfall was instead absorbed into the landscape, it could be used to provide 30% of LA's annual water demand.

Ocean Friendly Gardens (OFGs) provide nature-based solutions throughout the watershed to slow down and soak up rain to reduce polluted runoff. Utilizing native plants that sequester carbon and thrive without lawn chemicals or other intensive maintenance, OFGs also support climate resiliency and local biodiversity. Every front yard, backyard, or community green space is an opportunity to

restore habitat and regain the resilience of a healthy, functioning watershed.

With support from [Accelerate Resilience L.A.](#), a sponsored project of Rockefeller Philanthropy Advisors, the Surfrider [Long Beach](#) and Surfrider [Los Angeles](#) Chapters revitalized their Ocean Friendly Gardens programs this past year to form new community partnerships and engage volunteers in hands-on restoration action. Hundreds of participants learned about the benefits of watershed-wise and climate-wise landscaping practices, creating a positive ripple effect by taking their knowledge (and sometimes free native plants) home to apply in their own yards and neighborhoods. By developing diverse, meaningful community relationships, the OFG programs in LA County are fostering stewardship in new audiences and making an impact where it is needed the most.



An Ocean Friendly Garden planted by the Los Angeles Chapter provides shade and refuge along a busy street.

With the help of volunteers, the Surfrider Long Beach Chapter transformed two front yards from traditional, water-wasting monoculture lawns into resilient, rainwater harvesting gardens that soak up and prevent runoff. For many volunteers, it was their first time gardening with Ocean-Friendly methods, and it was inspiring to see them overcome their hesitations, get their hands dirty, and enjoy becoming confident in their own abilities.

Surfrider Long Beach also teamed up with volunteers at the Veterans Affairs Patient Garden to install six 50-gallon rain barrels that collect and store roof runoff from the garden's greenhouse. The VA Patient Garden serves as a peaceful refuge for veterans and healthcare workers at the hospital, a meeting place for therapy groups, and features accessible areas for people with mobility-aiding devices. During a follow-up OFG workday, participants got hands-on experience in applying sheet mulch, hand-weeding to reduce pesticide use, and planting native species. The VA Patient Garden was happy to have help from the chapter's young, active volunteers who could tackle some of these more physically intensive tasks in the garden, and the chapter's volunteers enjoyed

exploring this hidden gem of green space while giving back to their community.

Long Beach OFG volunteers also partnered with Puente Latino Association to organize two native milkweed giveaways, distributing nearly 5,000 seedlings from the Santa Monica Mountains Fund. Bilingual classes about milkweed were provided in English and Spanish, encouraging participants to adopt sustainable alternatives to often toxic, conventional landscaping practices. The giveaways were an accessible way to inspire community members to reimagine their outdoor surroundings and to take climate action at home.

The chapter collaborated with Long Beach Utilities to host a workday at an OFG installed by the city as part of a revitalization effort in a low-income neighborhood. The front yard had become overgrown because the residents were physically unable to keep up with the maintenance. Volunteers removed weeds, replanted plants, and learned about rainwater retention features like swales and berms. The chapter was able to help out the mobility-limited residents while utilizing the space as a teaching tool for OFG stewardship, a win-win for everyone.



OFG workday at the VA Patient Garden in Long Beach.



Further up the coast, the Surfrider Los Angeles Chapter hosted OFG workdays with the Westwood Neighborhood Greenway and Beyond Baroque: both vibrant green spaces that capture and filter rainwater while offering climate-resilient refuge from the highly urbanized neighborhood. Through partnerships with the organizations stewarding these OFGs, the chapter is connecting volunteers with meaningful opportunities for climate action and community stewardship.

Both chapters look forward to cultivating and nurturing new partnerships to bring Ocean Friendly Gardens to more neighborhoods in LA County and are already off to a good start in 2024 by installing a rain garden at Shoreline Village in Long Beach and transforming a thirsty lawn into a native oasis in the Leimert Park neighborhood of South Los Angeles. You can learn more about Ocean Friendly Gardens and how you can bring nature-based solutions to your own yard on Surfrider.org.



Volunteers help maintain and steward an Ocean Friendly Garden at Beyond Baroque in Los Angeles.



# Eastern Long Island, NY

## **Growing Ocean Friendly Gardens and Blue Water Task Force to a grand scale with community partners.**

The East End of Long Island offers a wide array of coastal waterways for people to enjoy. Beaches along the Atlantic Ocean, Peconic Bay, and Long Island Sound fill up during the busy summer season, but their use extends well into the cooler months, if not year-round, for surfing, paddling, fishing, and other recreational pursuits. Harbors, estuaries, and coastal ponds provide additional options for people to spend a day outside on or in the water.

Clean water is not only important for safe recreation and healthy lifestyles, but is also critical to support the local economy which relies heavily on tourism and other water-dependent industries like recreational and commercial fishing. Despite the relatively rural character

of the local communities due to relatively progressive zoning and land conservation efforts, water quality has been declining across the East End because of inadequate wastewater treatment. Very few communities are sewered – most households are connected to out-of-date cesspools and septic systems that overload local bays and estuaries with nitrogen pollution, even when they are functioning as designed. When these systems completely fail because of over-use or wet conditions from stormwater, rising water tables, and tides, local waterways can be inundated with fecal pathogens as well. This puts public health at risk and has resulted in a proliferation of harmful algae blooms that wreak havoc on aquatic ecosystems and fisheries.



📷 Dalton Portella

Tourists and locals enjoy the beaches of Long Island year round.

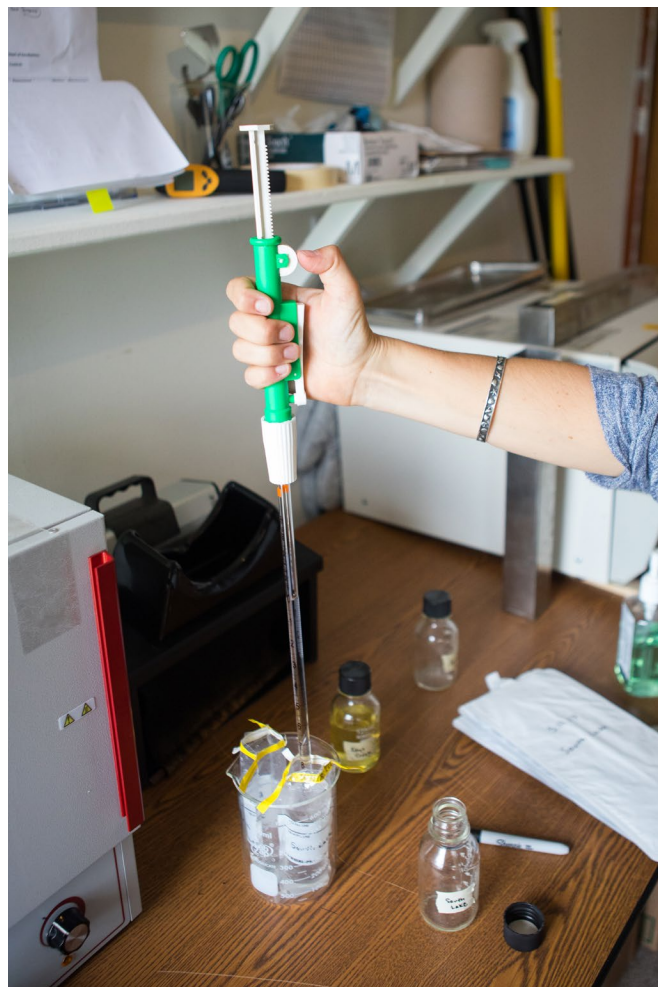
Increasing concerns with water quality and large gaps in the beach water quality monitoring program run by the Suffolk County Department of Health Services prompted the [Surfrider Eastern Long Island \(ELI\) Chapter](#) to team up with a local environmental organization, the [Concerned Citizens of Montauk](#), to launch their Blue Water Task Force (BWTF) ten years ago. The county monitors life-guarded bathing beaches during the summer, many on a monthly basis only. Initially, the BWTF sampling program covered approximately a dozen beaches in Montauk, but has since grown into the go-to source for year-round water quality information across the East End. Another partner, the [Peconic Baykeeper](#), has joined the team and collaboratively staff and volunteers from each partner organization monitor over [80 sampling sites](#) where people access and recreate in the water across the North and South Forks of Long Island. They are also sampling potential sources of pollution including freshwater creeks and outflows of stormwater runoff. Testing occurs on

a weekly basis from May through October and then occurs monthly during the cooler, winter months. All resulting water quality data are shared widely on social media and sent out via an email report so people have easy access to the information they need to know where it's safe to surf, swim, and play in the water.

An [annual water quality report](#) is also released every summer describing trends that define local pollution problems and help prioritize remediation and restoration efforts by local authorities and other stakeholders. For instance, the Town of East Hampton has investigated stormwater conveyances that lead to BWTF sampling sites that frequently measured high bacteria levels in Georgica Pond and at an ocean beach in Montauk. This lead to infrastructure repairs and new stormwater best management practices implemented to reduce polluted flows at these popular recreational access areas.



Volunteer collects water samples for testing at Hook Pond in Eastern Long Island.



Surfrider ELI also launched its [Ocean Friendly Gardens program](#) in 2017. Their first project installed a large bioswale in the Village Green in East Hampton to help absorb the massive amounts of road runoff that flow onto the site heading downstream towards Hook Pond and eventually the Atlantic Ocean at Main Beach. What was once a monoculture lawn that regularly flooded with stormwater, has since been transformed into an oasis of native plants that quickly absorb and filter the polluted runoff. This garden is a seasonal show stopper and has great public visibility located right on the main thoroughfare heading through town.

The success of this first project motivated the chapter and garden designer [Piazza Horticultural](#) to plan an even bigger OFG project with their community partners. With funds secured through private donations and the Clean Water East Hampton Community Preservation Fund, construction began in 2021 to remove over a ½ acre of turf lawn at another public green that receives significant road runoff. The Methodist Lane Ocean Friendly Garden includes a low-lying wetland area, a pollinator garden, and a meadow with native trees and grasses. The project was designed to maximize water

absorption while creating wildlife habitat with native plant and tree species that support local bird and pollinator populations.

As both gardens have become established (with over 20,000 native plants collectively!), they have performed beautifully, absorbing stormwater runoff and helping to protect downstream waters. This was keenly on display during the quick but heavy downpours that fell last summer. While village roads were flooded, these gardens received, absorbed, and naturally filtered out pollutants from a massive amount of stormwater runoff and oftentimes were nearly dry before the end of the day. The chapter is also holding garden workshops, tours, and volunteer work days to educate local youth and community groups on the benefits of native plants and how to incorporate sustainable landscaping practices into their yards at home. The chapter will hold more community events this coming year to continue to shift public perceptions on how we can care for our public spaces and residential yards to protect clean water while adding beauty to the community. You can learn more about the Methodist Lane Bioswale Ocean Friendly Garden on the [chapter's website](#).



Left: Flooding on-site before construction of the Methodist Lane bioswale. Right: After three growing seasons, native plants soak up and filter stormwater to reduce flooding and provide beautiful pollinator habitat in the community.

# San Diego, CA


## Advocating for solutions to one of the most significant **public health and environmental justice emergencies** in the country.

The coastline shared by San Diego (California, United States) and Tijuana (Baja California, Mexico) is known for stunning beaches, beautiful weather, diverse wildlife, world-class surf breaks, and a rich tapestry of multicultural identities. This region is also home to the Tijuana Estuary - the largest coastal wetland in Southern California, as well as one of the few remaining salt marshes that provides essential nesting ground for over 370 bird species.

This complex and beautiful region, however, has been plagued with severe pollution for decades. Every day, millions of gallons of contaminated water carrying stormwater runoff, raw sewage, harmful chemicals, and trash traverse the U.S./Mexico border through the Tijuana River Watershed and flow out into the Pacific Ocean in Imperial Beach. Additionally, the San Antonio de los Buenos Wastewater Treatment Plant just south of the border discharges approximately 35 million gallons

of untreated sewage into the Pacific Ocean each day. Currents associated with the Southern California Bight carry this pollution up the coast during the summer, causing widespread illnesses on both sides of the border and forcing beach closures throughout South San Diego County. [Recent research](#) from the Scripps Institute of Oceanography linked 34,000 illnesses in 2017 to water quality pollution along the Imperial Beach coastline. Another [recent study](#) from Scripps revealed that the aerosolization of toxins in the surf is now causing human health effects without any contact with the ocean. People are getting sick just by breathing the air as they go to work, school, and even trying to enjoy their own backyards. This public health and environmental justice emergency has been going on for decades and it's only getting worse, especially with climate change-related storm events further stressing the already inadequate and failing regional wastewater infrastructure.



 This is CA

Every day, millions of gallons of contaminated water carrying stormwater runoff, raw sewage, harmful chemicals, and trash traverse the U.S./Mexico border through the Tijuana River Watershed and flow out into the Pacific Ocean in Imperial Beach.

The Surfrider Foundation San Diego Chapter first tried to catch the attention of elected officials to stop the transboundary pollution over 30 years ago and has since been watchdogging this issue and seeking to build the public awareness needed to bring about change. In 2018, without a firm solution in sight, the Surfrider Foundation, working with a coalition of community-focused co-plaintiffs, filed lawsuits under the Clean Water Act against the International Boundary and Water Commission (IBWC) to address rampant and egregious water pollution. While the lawsuits were making their way through the courts, Surfrider continued drawing attention to this issue throughout San Diego and led focus groups consisting of other NGOs, community groups, and government agencies to design a “Stakeholder Solution” – a collective path forward out of the pollution crisis. This work helped inform the Comprehensive Infrastructure Solution (CIS) that the Environmental Protection Agency chose to pursue in 2021. A strong international settlement with the IBWC followed shortly in 2022 and included improved monitoring, communication, and reporting efforts, and most importantly, advancing infrastructure improvements through the EPA-vetted CIS to reduce transboundary flows by approximately 75% year-round and beach closures in San Diego during the summer by about 95%. These infrastructure improvements include expansion and upgrades to the failing International Sewage Treatment Plant in San Diego County and maintenance and expansion of stormwater collection systems on both sides of the border.

Since then, Surfrider’s advocacy efforts have been focused on raising the funds needed to fully implement the CIS. In 2023, we joined forces with local officials and a growing coalition of community groups and voices to request a state of emergency declaration to gain access to the funding needed to finally get construction of the CIS infrastructure improvements underway. The San Diego County Board of Supervisors first passed a unanimous decision to declare an emergency due to pollution and sewage flowing across the U.S./Mexico border in June. Championed by Imperial Beach Mayor Paloma Aguirre, the coalition then appealed to both Governor Newsom and President Biden to request a federal emergency declaration. While this declaration has not yet been made, our request did result in a significant amount of federal funding (approximately \$150 million) to cover construction costs for the IBWC and policy language in the FY2024 budget to allow other federal and state agencies to contribute funding towards implementation of the Comprehensive Infrastructure Solution.

These policy wins have been influenced this past year by a growing coalition of over 50 community-based organizations and local leaders who have coalesced to address this issue and its impact on children, youth, and family programs. Surfrider co-leads this diverse coalition with YMCA Camp Surf and Outdoor Outreach, whose collective actions so far have included awareness-raising community events and advocacy activations.



With the support of Tijuana River Action Month partners, Surfrider co-hosted an Environmental Justice Tour of the Tijuana River Valley (left) and a Youth Art Build (right) to build awareness of the impacts of pollution and the solutions needed.

In 2023, Surfrider San Diego also made a deliberate decision to offer more opportunities for youth engagement and utilized art as a tool for activism and healing to help build momentum for this campaign. Community activities held during Tijuana River Action Month helped prepare and strengthen turnout for a very important California Coastal Commission meeting held in Imperial Beach – one of the frontline communities bearing the brunt of the health impacts caused by transboundary pollution.

The San Diego Blue Water Task Force also resumed water quality testing at the Imperial Beach Pier after Covid-related school closures had interrupted this program. The first sample was collected in August, just 3 days after California experienced its first tropical storm in 84 years. Tropical Storm Hilary caused 2.5 billion gallons of contaminated stormwater to flow through the Tijuana River Valley. The chapter measured a bacteria count of 9,804 MPN/100 ml, nearly 100 times higher than the health standard for safe recreation. Nearly every water sample collected at the pier since then has also measured high bacteria levels that exceed the health standard.

While 2023 saw significant policy wins and a growing coalition of organizations and voices join together to raise

awareness of the devastating public health, economic, ecosystem, and coastal access issues caused by transboundary sewage and pollution, much work remains to be done. We desperately need to fill a several hundred million dollar funding gap to get the Comprehensive Infrastructure Solution built. We also need to secure an ongoing source of funding to cover operations and maintenance at the International Sewage Treatment Plant to make sure we do not end up in this position again. This will require elevating this issue to our national public consciousness to build the political pressure needed for our state and federal leaders to finally solve this crisis.

In fact, the Tijuana River was just named one of the top ten most endangered rivers in the United States by American Rivers. We hope the attention and urgency this brings will help households across the country recognize this issue as one of the most egregious, ongoing public health and environmental justice emergencies in the country. Join us today by signing this petition calling on the President and Congress to act now to address this national emergency.

Watch this short film to hear from people who live and work in Imperial Beach and are directly affected by this pollution.



Paddle for Clean Water, Ocean Beach, San Diego

# Contacts



**Mara Dias**  
Water Quality Initiative  
Senior Manager  
[mdias@surfrider.org](mailto:mdias@surfrider.org)



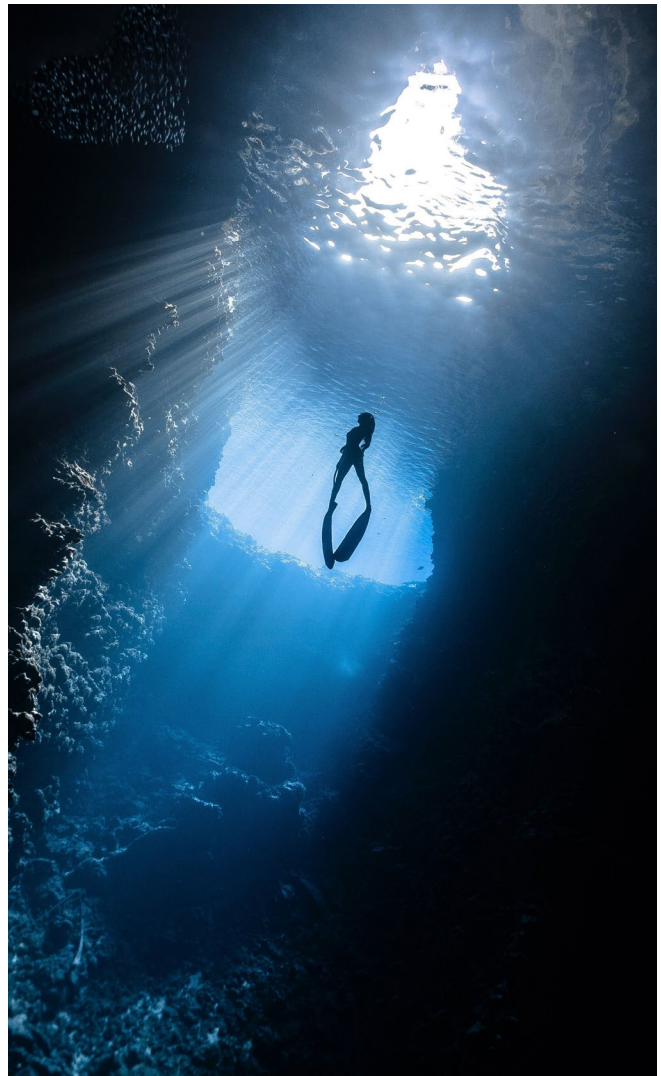
**Jaime LeDuc**  
Blue Water Task Force Manager  
[jleduc@surfrider.org](mailto:jleduc@surfrider.org)



**Sarah Davidson**  
Clean Border Water Now Manager  
[sdavidson@surfrider.org](mailto:sdavidson@surfrider.org)



**Kathryn Dressendorfer**  
Southern California Ocean  
Friendly Gardens Coordinator  
[kdressendorfer@surfrider.org](mailto:kdressendorfer@surfrider.org)



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