

2025

# Clean Water Report



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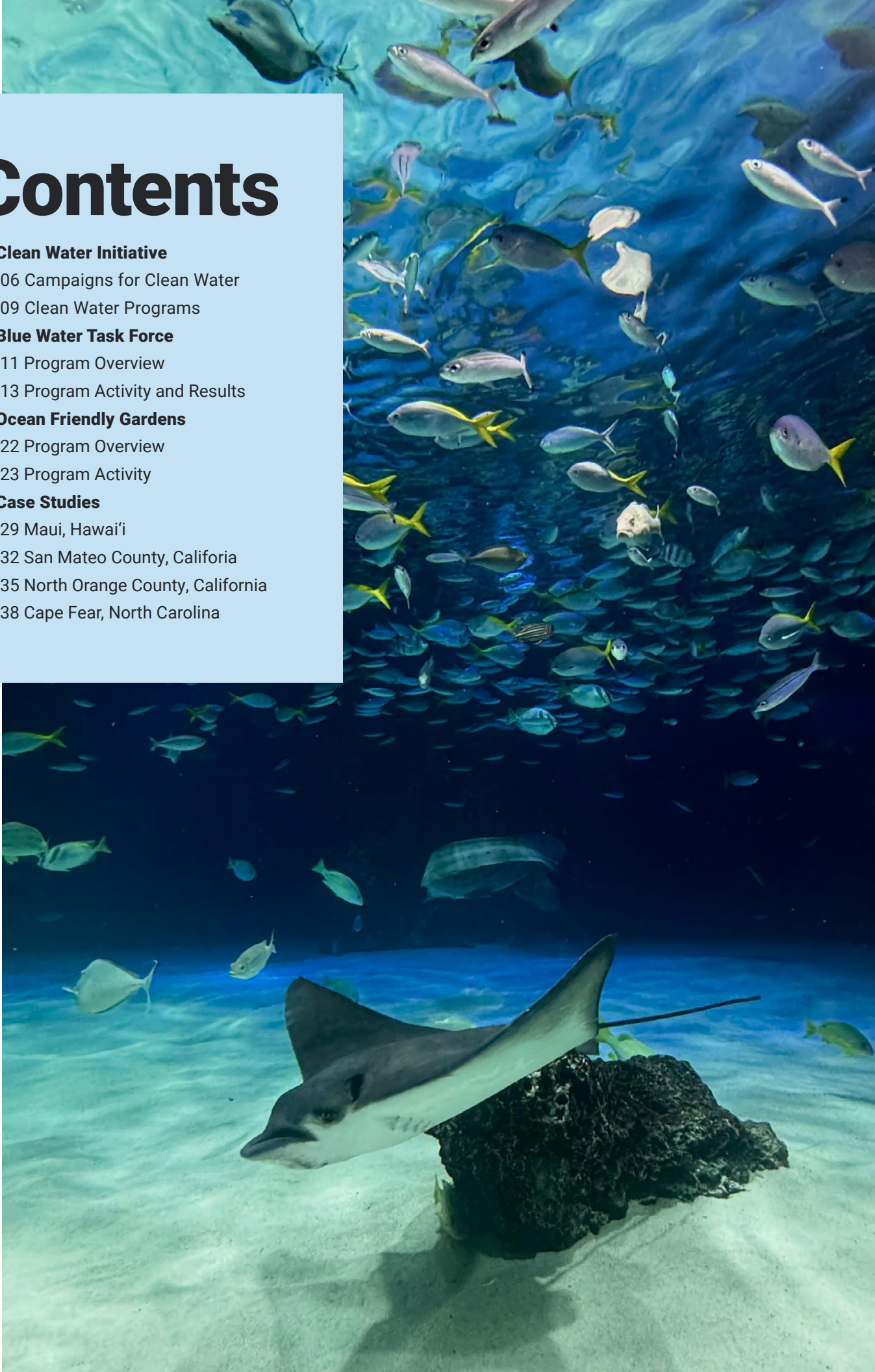
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# Clean Water Initiative

More than 100 million visitors flock to America'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 sustain 2.5 million jobs nationwide and contribute \$240 billion in gross domestic product to the national economy each year ([ASBPA.org](http://ASBPA.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, monitoring water quality, 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 2025 with more labs, sampling sites, and water quality tests performed than ever before.**



**60**

BWTF Labs

**620**

Sampling Sites

**10,157**

Samples Collected



## Threats

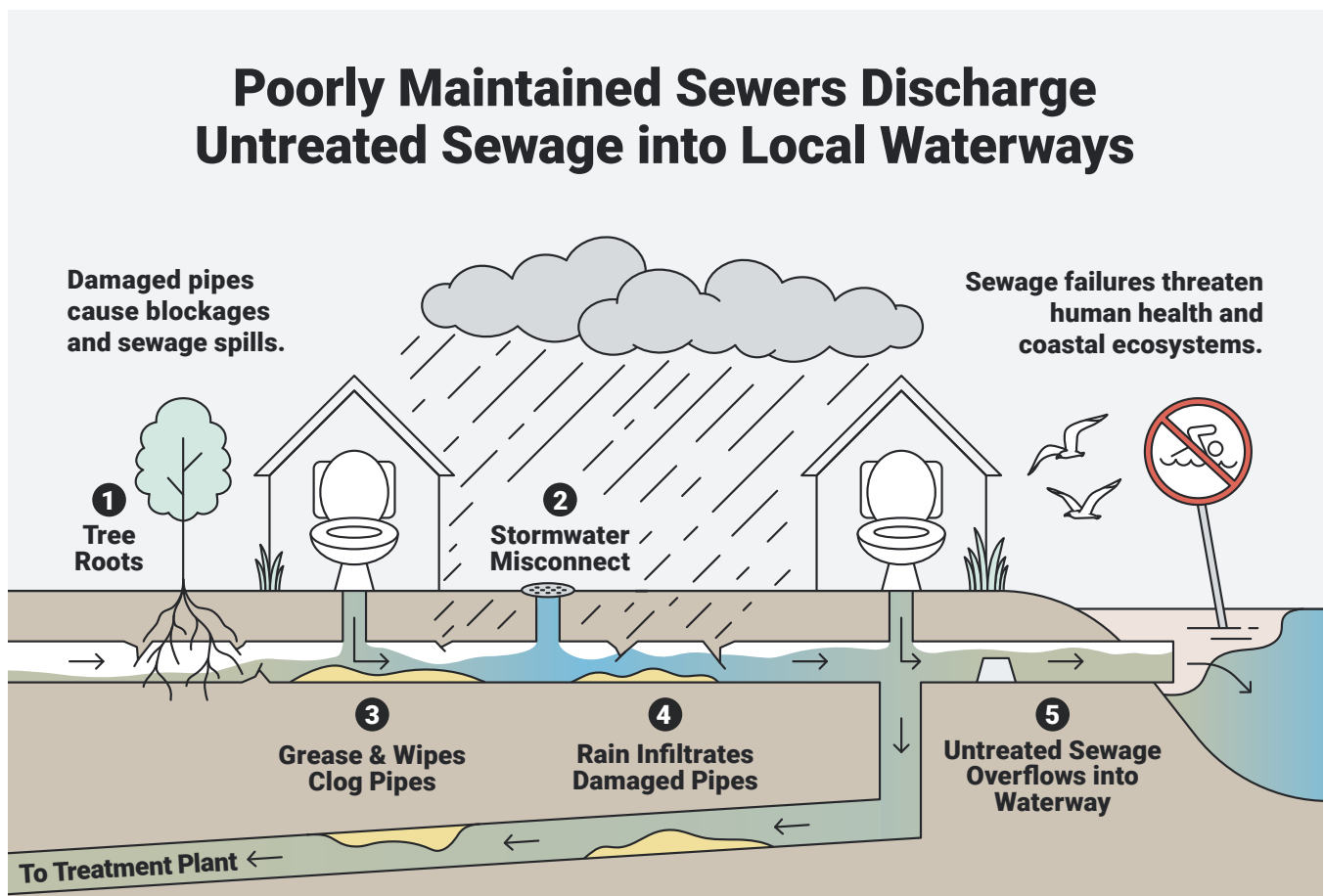
Despite the high value of clean beaches, coastal water quality is threatened by stormwater, urban and agricultural runoff, as well as sewage and industrial discharges. Nearly 10 trillion gallons of untreated stormwater runoff flow into U.S. waterways every year, carrying a cocktail of pollutants, including road dust, oil, animal waste, fertilizers, and other chemicals. Years of neglect and underfunding have also left America's outdated wastewater infrastructure in a state of disrepair, if not outright failure, as occurred in the [Potomac River in January, 2026](#).

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 and flu-like symptoms, rashes, skin and eye infections, and even more severe conditions like hepatitis. Sewage and stormwater runoff also pollute waterways with excess nutrients, wreaking havoc on coastal ecosystems. Polluted waterways fuel 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 also causing more frequent water infrastructure failures and sewage spills. Significant investments need to be made now to enable our coastal communities to become more resilient and better manage their water resources.

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



## 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 and coastal 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 – the largest volunteer-run beach water testing program in the country.

Through a nationwide 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 engages community members in nature-based solutions to urban runoff and improves climate resiliency through hands-on projects and stewardship activities. When more collaborative approaches to reduce pollution fail, the Surfrider Foundation has the legal expertise to bring issues to the courts to ensure proper enforcement of the Clean Water Act to protect clean water for all people.

## The Surfrider Foundation is taking a multi-tiered approach to tackle ocean and coastal pollution problems.



**Left:** A volunteer fills out a data sheet while collecting water samples during winter. **Top Right:** A volunteer tests water samples in a lab. **Bottom Right:** A warning sign in San Mateo County highlights the ongoing challenge of water contamination. © Kathryn Wheeler

# Campaigns for Clean Water

In coastal states and territories across the country, Surfrider chapters are leveling up the impact of their clean water programs by advocating for policy changes and pollution solutions. For example, the Maine and Connecticut Chapters helped pass municipal adoption of Ocean Friendly Garden practices, including bans on certain pesticides and artificial turf. In Los Angeles, the South Bay Chapter used its Blue Water Task Force (BWTF) water quality data to show the need for a large, stormwater infiltration project in Manhattan Beach, which will significantly reduce polluted runoff reaching Santa Monica Bay. In Puerto Rico, the Rincón Chapter's BWTF often finds and documents wastewater infrastructure failures – backed-up manholes, leaking cesspools, malfunctioning pumping stations – and reports these to the proper authorities to be fixed.

Unfortunately, sewage spills and wastewater infrastructure failures, such as the massive spill of over 240 million gallons of untreated sewage into the Potomac River in January 2026, happen far too frequently. There is an estimated \$630 billion backlog in necessary wastewater infrastructure repairs

and updates nationwide. To help fill this gap, Surfrider has long advocated for increased funding for the federal Clean Water State Revolving Fund, an EPA program that provides assistance to states to help pay for wastewater infrastructure upgrades and capital improvement projects.

We also advocate for better notification of sewage spills to protect public health. In 2025, we made great advances towards this goal with the successful passage of the Sewage Spill Right-to-Know Bill, which improves public access to sewage spill reports and information in Washington state. In 2024, the Florida state legislature unanimously passed the Safe Waterways Act, which would have improved how the public is warned of sewage spills and other pollution events at the beach. Unfortunately, the Governor vetoed this state bill. Nevertheless, Surfrider's network of chapters in Florida will continue to push for improvements to the state-run beach water quality and public notification program, as implementation is inconsistent across counties, leaving beachgoers vulnerable to getting sick from recreating in Florida's coastal waters.



**Left:** A student participant in the South Bay Chapter's Teach & Test program collects a water sample for quality analysis. **Top Right:** Activists in Olympia celebrate a major victory for public health as the Sewage Spill Right-to-Know Bill passes the legislature. **Bottom Right:** BWTF Program Manager Jaime LeDuc, and Chip Maran Southampton Town Trustee, install a BWTF sign just in time for Memorial Day weekend when beach activity ramps up for the season.

## BEACH Act

To ensure that water quality is monitored at our nation's beaches and the public is informed of pollution events, the Surfrider Foundation helped build the Congressional support needed to pass the Beaches Environmental Assessment and Coastal Health (BEACH) Act of 2000. Since then, Surfrider has been advocating for proper implementation and sufficient funding for the federal grants program created by the BEACH Act at the Environmental Protection Agency (EPA). The grants program helps fund beach water testing and public notification in all 35 of our coastal states and territories.

Chronic underfunding of this program, however, has left testing gaps and public health unprotected. This is common during off-season months when lifeguards are not on duty but ocean recreation remains high, especially in terms of surfing. Surfrider has tried to convince Congress to raise the annual appropriation for the BEACH Act Grant Program for many years, but in a political climate that saw the budgets of many environmental programs slashed, we were happy the program received level funding of just under \$10 million in the 2025 budget. In 2026, we are once again advocating to increase federal support for beach water quality testing programs. Please [click here](#) to join us in asking Congress to increase its support for the BEACH Act and other critical ocean and coastal programs in the federal budget.

Over the past year, bipartisan support in Congress for a new bill, the BEACH Act of 2025, grew and was largely informed by the expertise and experience of Surfrider's Blue Water Task Force program. The BEACH Act of 2025 proposes to extend funding authorization for the EPA's BEACH Act grants for another five years. It also proposes flexibility and improvements for state implementation, including allowing grant dollars to be spent identifying sources of pollution and testing streams that flow across the beach (where BWTF programs often find high bacteria levels and many kids play in the water, unknowingly putting themselves at risk). The BEACH Act of 2025 also directs the EPA to encourage the development and use of new rapid testing methods so people have more timely information available to decide where it is safe to get into the water.

This bill was bundled with reauthorization bills for other clean water programs at the EPA, including the National Estuary Program and Great Lakes Restoration Initiative, in the House of Representatives. The resulting American Water Stewardship Act (H.R.6422) passed the House in March 2026, by an overwhelming majority of 378-32. Please [join us and add your voice](#) to our efforts to build support for the final passage of the BEACH Act of 2025 in the Senate to improve public health protection at U.S. beaches.



## Clean Border Water Now

In Southern California, the Surfrider Foundation is working across jurisdictions and even borders to advocate for wastewater infrastructure solutions to reduce contamination in the international watershed of the Tijuana River. The San Diego Chapter has been raising the alarm on the egregious public health and environmental justice crisis affecting communities on both sides of the U.S./Mexico border for decades, and this issue has become an organizational priority campaign issue. Surfrider volunteers, staff, coalition partners, and a groundswell of community voices are showing up and demanding action. As a result, several campaign victories were won at the federal and state levels over the last two years, securing approximately \$600 million to fund water infrastructure improvement projects that will reduce the flow of transboundary pollution through the Tijuana Watershed and into the Pacific Ocean.

Last year also saw a number of federal diplomatic interventions, and promises made, that succeeded in maintaining elevated public attention and momentum on the issue. The EPA Administrator, Lee Zeldin, visited the border and the South Bay International Wastewater

Treatment Plant. The International Boundary and Water Commission (IBWC) accelerated the expansion of the treatment plant by 10 million gallons per day, and the U.S. and Mexico signed two new international agreements. There were also momentary improvements in water and air quality that provided short periods of relief for residents. The southernmost beach in San Diego County, Tijuana Sloughs, even opened for one day, on October 12 — an anomaly in the more than four years of consecutive days of beach closures. These short-lived exceptions offered glimmers of hope for residents and water advocates, and demonstrated that it can be possible to breathe clean air and safely enjoy outdoor (and indoor) spaces in the region. Unfortunately, these reprieves faded as quickly as they arrived, leaving residents to continue enduring the toxic water and air pollution that loom over their neighborhoods.

In 2026, Surfrider and coalition partners are doubling down on advocacy efforts at all levels of government to stop the flow of pollution and to provide long-overdue relief to these affected communities. You can learn more about the Clean Border Water Now program and our campaign goals for the coming year on [Surfrider San Diego's website](#).



**Left:** Every day, millions of gallons of contaminated water flow through the Tijuana River Watershed across the U.S./Mexico border and into the Pacific Ocean at Imperial Beach. 📷 Veriditas Rising **Right:** Communities from across San Diego County and beyond gather to demand an urgent response to the ongoing public health emergency in the Tijuana River Watershed. 📷 Veriditas Rising

# Clean Water Programs

This 2025 Clean Water Report tracks the progress of the Surfrider Foundation’s Blue Water Task Force (BWTF) and Ocean Friendly Gardens (OFG) programs. It also shares case studies demonstrating how Surfrider chapters apply these programs locally to protect public health, identify water quality concerns, and bring their communities together to implement lasting solutions.



The Blue Water Task Force, the largest volunteer-run beach water quality monitoring program in the U.S., provides critical information to protect public health at America’s beaches, from coast to coast. Surfrider chapters use this program to raise awareness of local pollution problems and bring communities together to implement solutions.

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



Ocean Friendly Gardens offer simple and beautiful nature-based solutions to soak up and filter runoff, supporting resilient coasts and communities. Surfrider chapters use this program to create beautiful green spaces in their communities, restoring the natural functions of healthy watersheds and empowering volunteers with the skills to grow a more climate-resilient future.

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



# **Blue Water Task Force**

# Program Overview

Since the inception of the Blue Water Task Force (BWTF) program over 35 years ago, Surfrider volunteers have been testing water quality at their local beaches and coastal waterways. Now, as the largest volunteer-run beach water testing program in the U.S., with a national network of 60 chapter-led labs, the BWTF conducts over 10,000 sample tests annually to measure bacteria levels at more than 600 sites across the country, including ocean, bay, estuary, and freshwater sources. Most chapter water testing programs are designed to fill in the gaps and extend the coverage of state and local agency beach monitoring programs.

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,

ivers, and creeks that discharge onto our beaches. The BWTF operates year-round, providing critical public health protection during the off-season, when lifeguards leave our beaches and health officials stop collecting water samples. Watch the short video below to learn more and see the BWTF in action.

In addition to protecting you and your family's health at the beach, the BWTF is also cultivating the next generation of coastal defenders. Students help collect and process water samples for more than half of our BWTF labs nationwide, gaining valuable hands-on experience in both fieldwork and the laboratory along the way. Many of these students go on to pursue careers in conservation and environmental science.

**As the largest volunteer-run beach water testing program in the U.S., with a national network of 60 chapter-led labs, the BWTF measures bacteria levels at more than 600 sites across the country, including ocean, bay, estuary, and freshwater locations.**



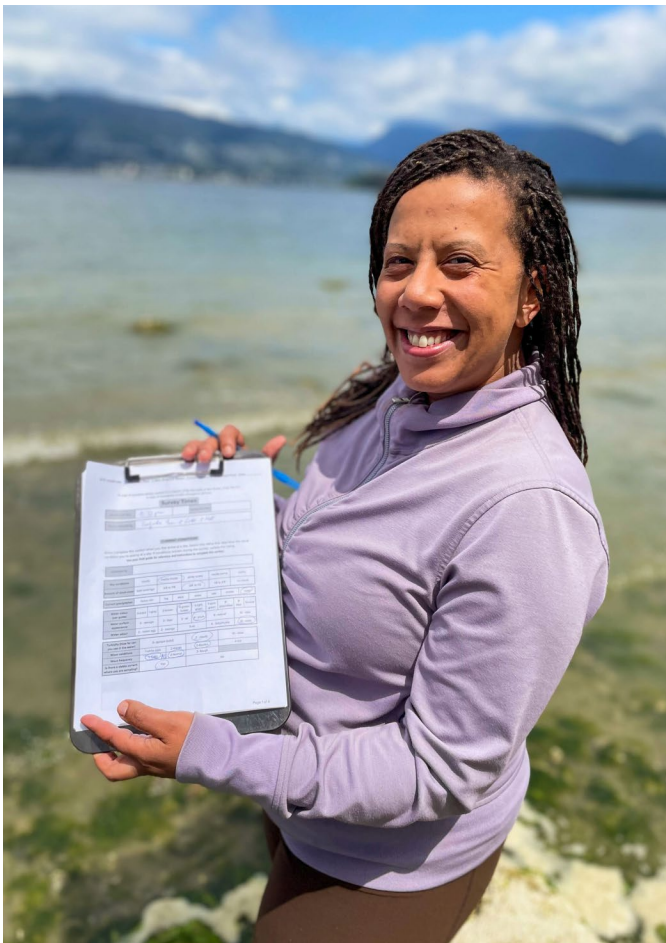
All Blue Water Task Force test results are compared to state water quality standards set to protect public health in recreational waters and are posted on Surfrider’s website. Chapters also share their water quality data with the local communities they serve through social media, email, and public presentations, providing beachgoers with up-to-date information on where it’s safe to surf, swim, and play in the water.

When our BWTF results show long-term or seasonal trends of elevated bacteria levels, our chapters use their data to build community awareness and motivate local decision-makers to take action to find and fix the sources of pollution. Several Surfrider chapters have even launched pollution source studies of their own to provide decision-makers with more information to identify sources in their coastal watersheds. It can take many years from the initial discovery of new pollution until enough political will is generated to drive real solutions. The good news is that Surfrider is in it for the long haul.

Across the country, Surfrider’s BWTF volunteers are committed to measuring water quality at the beaches and coastal waterways they love, and rallying their communities around protecting clean water for all people, and future generations, to enjoy.

Read on to learn more about how the Surfrider chapters in Maui, Hawai’i, San Mateo County, California, and Cape Fear, North Carolina, use their Blue Water Task Force programs to protect safe ocean recreation and solve local pollution problems in the case studies featured at the end of this report.

To best protect your own and your family’s health, always check local water quality conditions before you head to the beach – the same way you’d check the weather or surf forecast. 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](#).



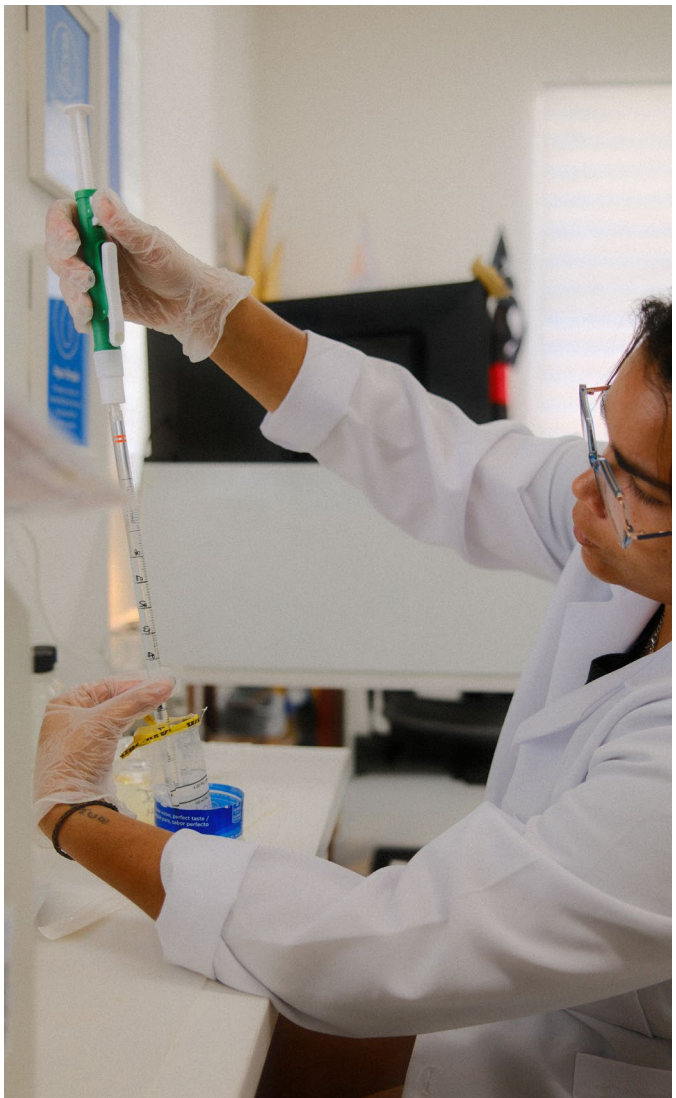
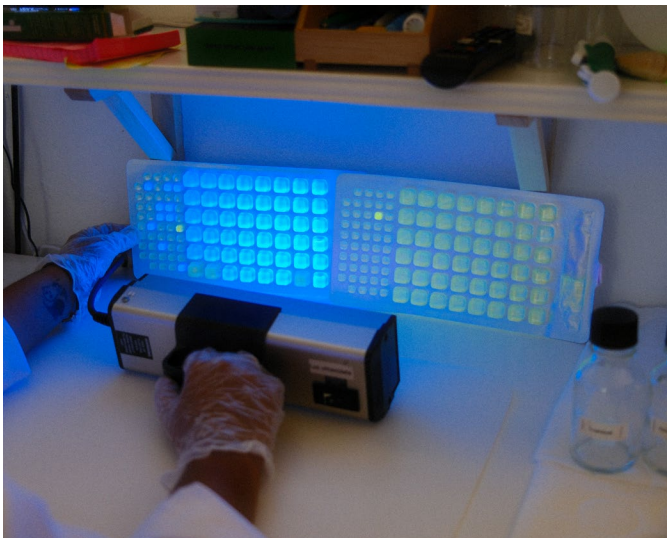
Blue Water Task Force volunteers around the country collect and test water samples to track water quality at their local beaches.

# Program Activity and Results

During 2025, 60 Blue Water Task Force labs processed 10,157 water samples collected from 620 distinct sampling sites. Once again, Surfrider Foundation chapters broke records with more sampling sites and more water quality tests performed than ever before. In 2025, a new lab was established in Imperial Beach, California, through a collaboration between the San Diego Chapter's BWTF and Clean Border Water Now programs and the local YMCA's Camp Surf.

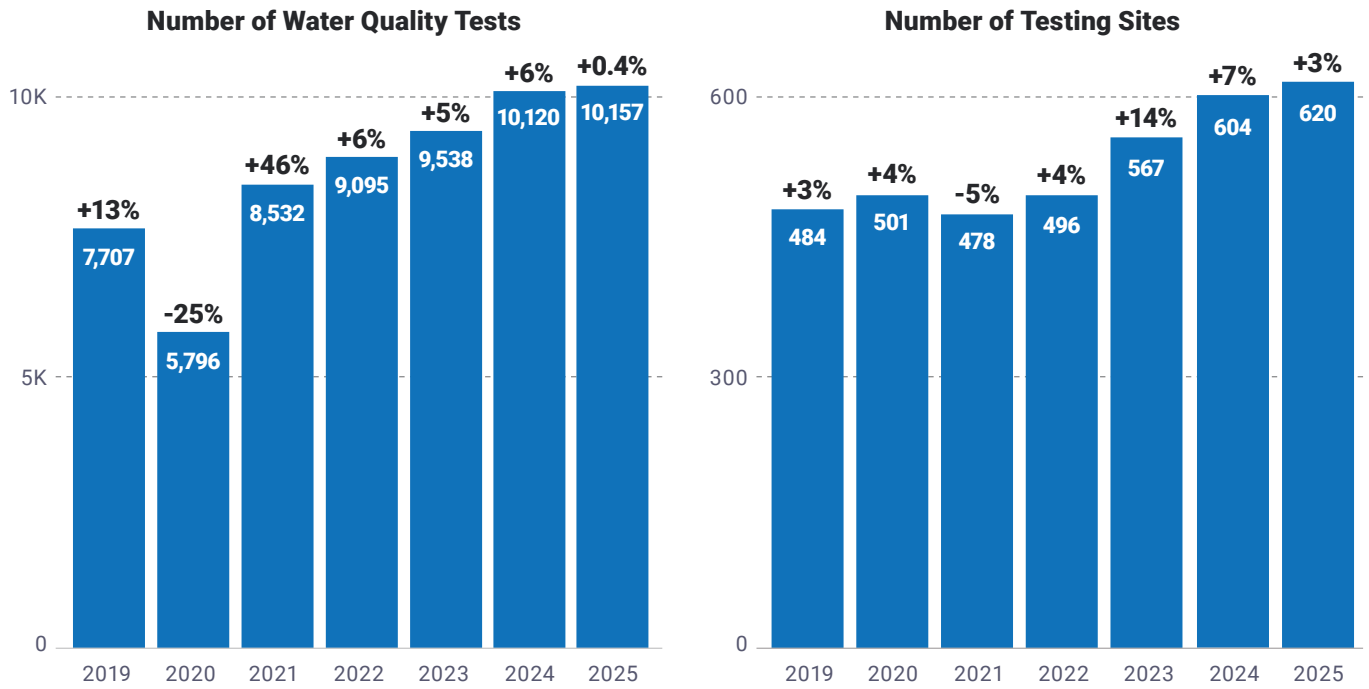
In Monterey, California, the chapter teamed up with META Lab at the Middlebury Institute of International Studies in Monterey to host their new BWTF lab and to provide enhanced opportunities for student engagement. The BWTF also expanded in Canada in 2025, with Surfrider Vancouver starting to test Kitsilano Beach. As in many coastal states, Canada's health agency only monitors beach water quality during the peak summer season, and the Vancouver BWTF will expand testing into the cooler months.

**During 2025, 60 BWTF labs processed 10,157 water samples collected from 620 distinct sampling sites.**

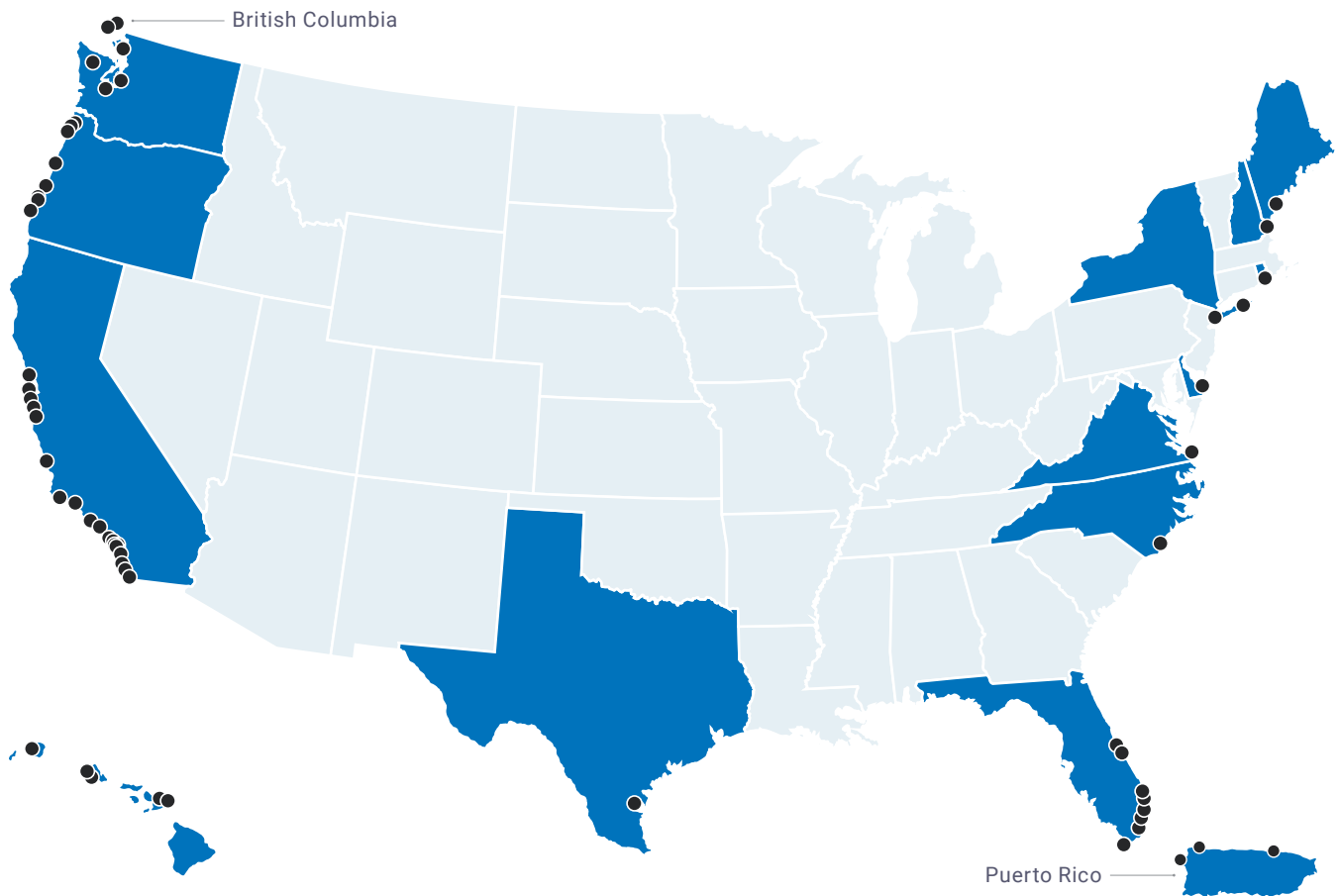


**Top Left:** A volunteer collects a water sample. **Bottom Left:** Test results are determined using UV light. **Right:** A sample is prepared in the lab.

# Annual Growth in Water Testing



## Water Testing Lab Locations



# Water Tests Performed in 2025

**10,157**  
Total Tests

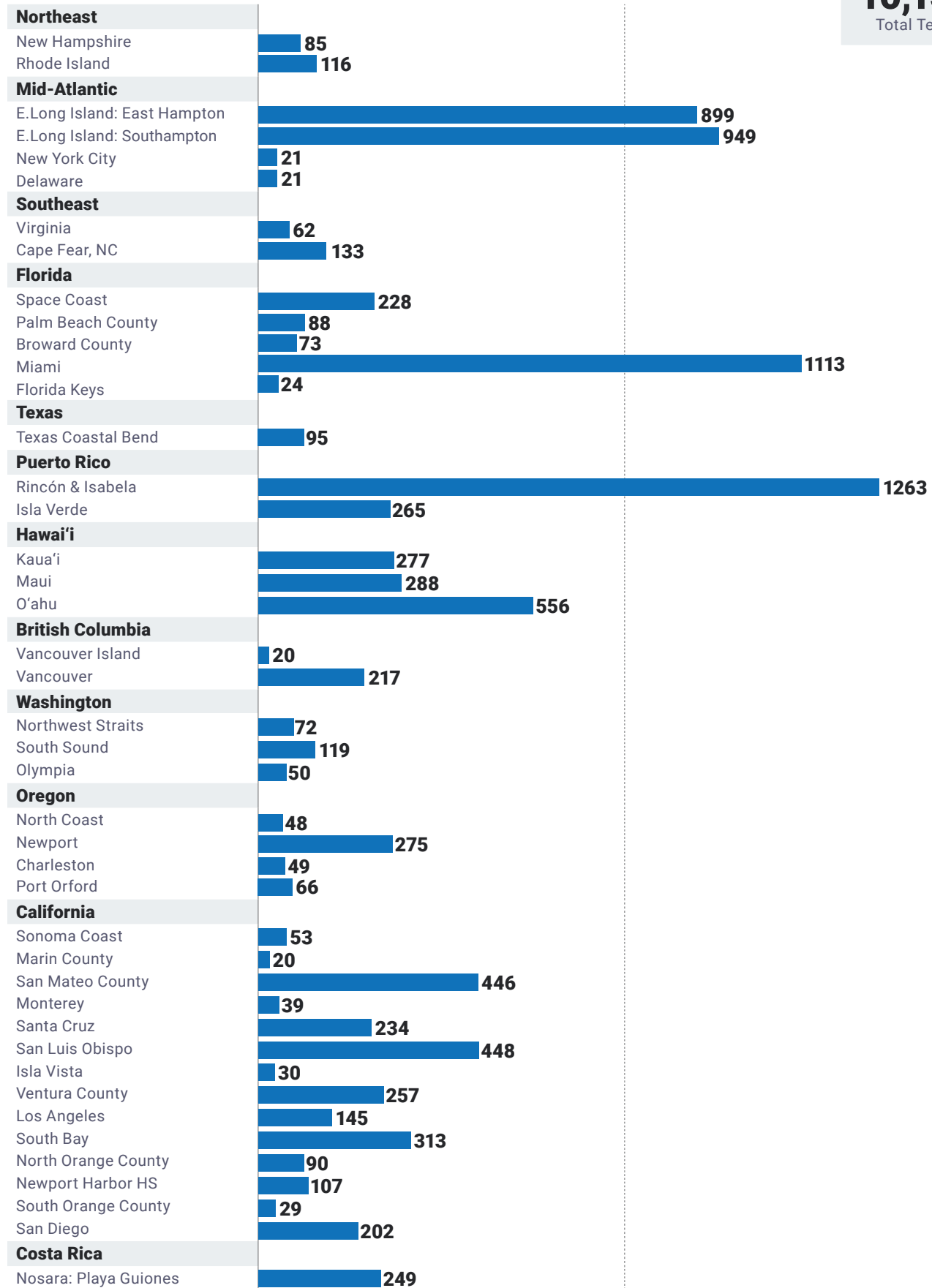
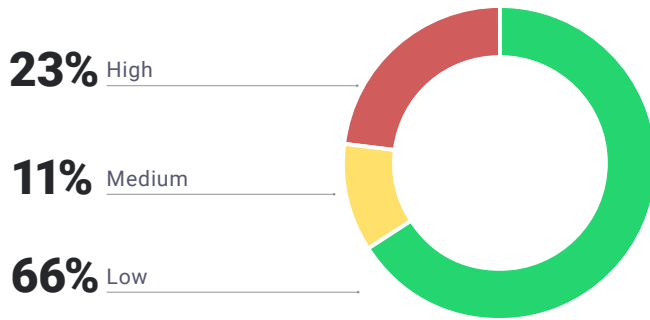


Table shows all the chapters that collected at least 20 samples.

750

1500

## Bacteria Levels Measured in 2025



### **65% of the beaches tested yielded at least one high bacteria result that exceeded state health standards in 2025.**

The collective results from all the participating B WTF labs have remained relatively constant over the years. Of the 10,157 water test results reported in 2025, 66% indicated low bacteria levels, 11% indicated medium bacteria levels, and 23% measured high bacteria levels that exceeded state standards that protect public health in recreational waters.

Likely more important to a beachgoer is the fact that 65% of the beaches tested (400 of the 620 sampling sites) yielded at least one high bacteria result that exceeded state health standards. This highlights 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 Beachpedia 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 estuaries, that 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 overwhelm wastewater infrastructure, such as cesspools, septic systems, and sewers, causing them to fail – releasing untreated sewage into our local waterways and ocean.



Water quality samples are sealed in a multi-well tray before being placed in the incubator.

## Beach Bacteria Hot Spots

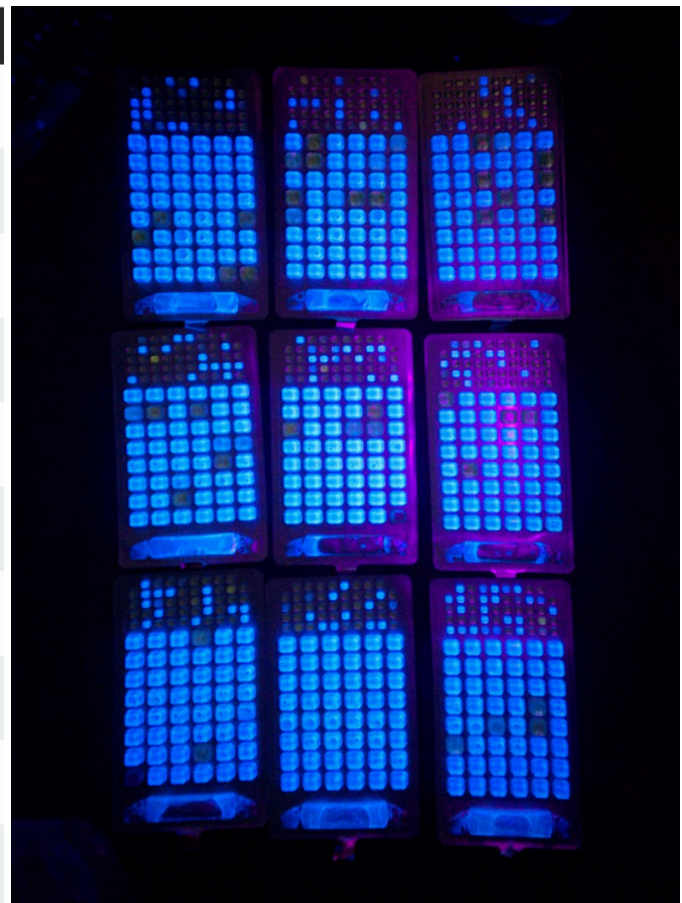
Across the country, Surfrider’s Blue Water Task Force programs are measuring high bacteria levels at many beaches and recreational waterways where stormwater runoff and failing sewage infrastructure are polluting our coastal waters. In many instances, no one else is monitoring these sites, or agency 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 ultimately restore reliable clean water access in coastal communities.

The following table highlights 10 Beach Bacteria Hot Spots across the country where Surfrider’s Blue Water Task Force consistently measures high bacteria levels. The table shows the percentage of samples collected at each beach that resulted in bacteria counts exceeding the state health standard for recreational waters. This translates to a percentage of high bacteria measured at each site as an

indication of safety for recreational use. Please note that due to an interruption in volunteer capacity to safely and consistently test Imperial Beach ourselves, the placement of Imperial Beach on this list is based on the number of days during 2025 that the water quality data collected by the San Diego Department of Environmental Health and Quality resulted in a beach closure.

All of the beaches listed have popular recreational use and pose real health risks to swimmers, surfers, and families. Each location regularly shows dangerous levels of fecal-indicator bacteria linked to human illnesses, including gastrointestinal issues, flu-like symptoms, and serious skin conditions like MRSA and staph infections. The Surfrider chapters testing these sites are working diligently in their communities to alert the public about these health hazards and advocating for solutions to stormwater runoff, failing sewage infrastructure, and other contributing sources responsible for these polluted conditions.

Beach/Location	High Bacteria Rate <sup>1</sup>
<b>Ballard Park</b> <u>Melbourne, Florida</u>	<b>76%</b>
<b>Margaret Pace Park</b> <u>Miami, Florida</u>	<b>64%</b>
<b>Park View Kayak Launch</b> <u>Miami Beach, Florida</u>	<b>92%</b>
<b>Thea Foss Floating Dock</b> <u>Tacoma, Washington</u>	<b>29%</b>
<b>Linda Mar Beach</b> <u>Pacifica, California</u>	<b>72%</b>
<b>San Luis Creek at Avila Beach</b> <u>San Luis Obispo, California</u>	<b>47%</b>
<b>Imperial Beach</b> <u>San Diego, California</u>	<b>89%<sup>2</sup></b>
<b>Hakipu’u Boat Ramp</b> <u>Hakipu’u, O’ahu, Hawai’i</u>	<b>82%</b>
<b>Punalu’u Beach Park, Chings</b> <u>Punalu’u, O’ahu, Hawai’i</u>	<b>100%</b>
<b>Moloa’a Stream Mouth</b> <u>Moloa’a Beach, Kaua’i, Hawai’i</u>	<b>100%</b>



<sup>1</sup>High Bacteria Rate = Percentage of samples collected that fail to meet the state health standard for recreational waters.

<sup>2</sup>Based on number of beach closure days issued by the San Diego Department of Environmental Health and Quality.

From idyllic, tropical beaches in Hawai'i to urban beaches on the shores of the Puget Sound in Washington, and the Indian River Lagoon (IRL) in Florida, Surfrider's BWTF is filling in gaps to provide critical health information to keep beachgoers and park users safe.

## East Coast

Ballard Park in Melbourne, Florida, is a popular spot for families to enjoy a fun day by the water, but water quality is affected by stormwater runoff and old, failing sewage infrastructure. The Space Coast Chapter installed two buffer gardens at Ballard Park in 2024 to reduce runoff into the Indian River Lagoon and has been hosting volunteer workdays to steward these gardens ever since. Informational signs with QR codes that direct park visitors to the chapter's water quality test results are also posted so families can make informed decisions about whether it's safe to get into the water. For decades, water quality in the IRL has been declining due to stormwater runoff and failing wastewater infrastructure, including sewage spills and aging septic systems in the watershed. The resulting nutrient pollution with high levels of nitrogen and phosphorus has disrupted the ecological balance within the IRL, causing harmful algal blooms, fish kills, and declining seagrass beds.

This legacy of pollution has contributed to the deaths of thousands of manatees in recent years that are literally starving because there is not enough seagrass available for them to eat while they spend the cooler, winter months

in this estuary. In April 2025, a federal court ruled that the State of Florida needs to do more to improve sewage treatment and reduce inputs of nutrient pollution in the lagoon to protect manatees, listed as threatened under the Endangered Species Act. Unfortunately, the State of Florida appealed this decision, and oral arguments took place in April 2026. The decision from the U.S. 11th Circuit Court of Appeals is pending. You can learn more [here](#).

In recent years, increasing activity and operations of the private space industry are also raising concerns about compounding pollution impacts on this already burdened and recovering estuary. At both the state and federal levels, Surfrider continues to advocate for the protection of critical coastal waters and threatened marine species, as well as funding for wastewater improvement projects in Florida and across the country.

Further down the coast in Miami, two popular public launches for kayaks and stand-up paddleboards made the hot spot list this year. With a 92% high bacteria rate, the Park View Kayak Launch has been featured on Surfrider's list every year since we began featuring polluted beaches in 2021. The Park View Island Canal has also been under a no-contact water advisory since March 2020. Despite this, people can still routinely be found swimming and kayaking in the canal. A newly featured beach is Margaret Pace Park, a beautiful park where people like to picnic and jog, and where they can easily rent kayaks or paddleboards to paddle in Biscayne Bay.



**Left:** A warning sign placed at the entrance of the Parkview Kayak Launch in Miami, Florida. **Right:** Margaret Pace Park in Miami, Florida.

## West Coast

In Tacoma, Washington, the Thea Foss Floating Dock is popular with kayakers and paddlers launching into Puget Sound, yet water quality often does not support safe recreation.

In San Luis Obispo (SLO) County, California, the local Surfrider chapter has been documenting high bacteria levels at the mouth of the San Luis Creek for over a decade. Families with small children enjoy swimming in the estuary where the creek flows across Avila Beach and empties into the ocean. To motivate action and inform solutions for the long-term issues with high bacteria, the chapter has been conducting eDNA testing in SLO Creek. Up the coast in Pacifica, California, the San Mateo County Chapter has joined a coalition of environmental and surfing groups to raise public awareness and investigate the sources of pollution in San Pedro Creek, which flows to the Pacific Ocean at Linda Mar Beach. You can learn more about the coalition's efforts in the case study at the end of this report.

Close to the U.S./Mexico border, Imperial Beach remains affected by transboundary flows of stormwater, sewage,

and industrial pollution through the Tijuana River Valley and was closed to recreation for 325 days in 2025. In fact, the Tijuana River also had the dubious distinction of making [America's Most Endangered Rivers](#) top-ten list in 2024 and 2025. As described earlier, Surfrider and coalition partners made great strides over the last couple of years through our Clean Border Water Now campaign work, securing hundreds of millions of dollars in state and federal funding for needed infrastructure improvements. Sewage treatment plants on both sides of the border have capital improvement projects underway. Despite this progress, affected communities continue to suffer. They face not only water pollution but also poor air quality, which is severely affecting public health. A [new study released last year](#) documented dangerous levels of hydrogen sulfide being released into the air, or aerosolized, as heavily polluted water flows quickly through the main river channel in the San Diego neighborhood of Nestor. In 2026, Surfrider's advocacy efforts will be focused on finding and funding immediate solutions for this urgent community health risk, while the larger wastewater infrastructure projects are underway at the border.



**Top Left:** A water sample is collected at the Thea Foss Floating Dock in Tacoma, Washington. **Bottom Left:** Children play in the San Luis Creek despite warning sign. **Right:** Tijuana River Estuary and Coastline. © Veriditas Rising

## Hawai'i

On O'ahu, both Beach Bacteria Hot Spots are located in watersheds with a high concentration of cesspools and near the outlet of streams that bring stormwater runoff down to the ocean. The Hakipu'u Boat Ramp is used as an access point for the local community to go snorkeling, boating, and fishing in Kāne'ohe Bay. Punalu'u Beach Park, or "Chings" as it's commonly referred to, is a relatively new site for the O'ahu BWTF. A member of the local community requested water quality testing here in September 2024. The chapter strives to meet community needs when possible and often takes the opportunity to train local volunteers and students to get involved directly in its BWTF community science program. This was the case at Punalu'u, and now, with a new volunteer, the O'ahu BWTF program has established two new sampling sites on the northeast side of the island, helping to fill a previous testing gap. Unfortunately, every sample collected at Chings failed to meet state health criteria in 2024 and 2025.

Another site that measured high bacteria levels every time it was tested in 2025 is the Moloa'a Stream Mouth at Moloa'a Beach on Kaua'i. The chapter BWTF tests water quality at surf breaks and stream mouths on Kaua'i to complement the state's program, which only monitors popular,

lifeguarded beaches. Many of these stream mouths fail to meet safe water quality criteria nearly every time they are tested, yet families with small children often play in the shallow, calm waters of these streams where they flow across the beach, unaware of the pollution risks.

Like the other Hawaiian Islands, many areas of Kaua'i still rely on cesspools that ultimately leach sewage into coastal watersheds. In fact, the Kaua'i chapter even conducted a study testing Moloa'a 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 at the beach.

The ultimate goal of Surfrider's BWTF program 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.



Left: Moloa'a Stream Mouth at Moloa'a Beach on Kaua'i. Right: A BWTF volunteer collects a water sample from the Hakipu'u Boat Ramp.

# Ocean Friendly Gardens



# Program Overview

The Surfrider Foundation's [Ocean Friendly Gardens](#) (OFG) program uses upstream, nature-based solutions to soak up stormwater and support resilient coasts and communities.

Because much of our environment has been paved over or built on, rainwater is flushed quickly through gutters, streets, and storm drains into local waterways and, ultimately, the ocean. Stormwater and urban runoff wash lawn chemicals, trash, road dust, oil, sewage overflows, animal waste, and more down into our local watersheds – carrying a toxic cocktail of pollutants to the beaches where we surf, swim, and enjoy the water.

Deeply rooted native plants, healthy living soils, and rainwater retention features in OFGs help slow, disperse, and soak up the flow of rainwater and runoff before it reaches storm drains and our local waterways. Whether inland or along the coast, OFGs restore the functions of healthy watersheds and support climate resilience.

## Clean water starts with Ocean Friendly Gardens!

**Protect Clean Water:** Ocean Friendly Gardens soak up and naturally filter stormwater runoff before it reaches the coast. Chemical-free maintenance reduces pollution.

**Restore Habitat & Biodiversity:** Native plants create habitat for pollinators and wildlife.

**Support Climate Resilience:** Carbon is stored in healthy soils and deep roots. Water retention in contours and swales buffer against flooding. Plants and trees cool our communities.



© Sarahi Apaez

# Program Activity

Surfrider chapters use the Ocean Friendly Gardens program to safeguard clean water, create beautiful green spaces in their communities, and connect people with hands-on, impactful climate actions they can take at home and beyond.

Each chapter implements its OFG program in response to local needs and priorities, leveraging available opportunities and collaborating with diverse community partners. To learn more about these program pathways, see the [OFG Chapter Guide](#).

**Public Awareness & Education:** Chapters host educational workshops on topics like rainwater retention, healthy soils, and native plants. Public tours showcase ambassador gardens and inspire actions people can take at home in their own yards.

**Making Yards More Ocean-Friendly:** Chapters are helping people apply OFG principles to soak up rain and reduce polluted runoff in their own yards. These positive changes

can be made incrementally, or all at once, with the help of volunteers. Yards and gardens that fully meet the OFG criteria can display signs as program ambassadors and become registered on the OFG map to track program impacts and provide local inspiration.

**Community Gardens & Partnerships:** Chapters collaborate with diverse local partners to create and steward Ocean Friendly Gardens, providing their local community with benefits where they are most needed. Equitable access to clean water, vibrant green spaces, and culturally and ecologically significant native plants are shared priorities for OFG collaborations.

**Campaigns & Policy:** Chapters advocate for local ordinances and policies to amplify the benefits of OFG practices. Examples include bans and restrictions on fertilizers, pesticides, and artificial plastic turf. Positive, solution-oriented policies include improving stormwater regulations and requiring native plants in public landscaping.



**Top Left:** The Los Angeles Chapter hosted an OFG and fire-resilience panel to discuss climate-fueled firestorms and resilient landscaping strategies. **Bottom Left:** Volunteers install an Ocean Friendly Garden in Long Beach, California. **Right:** Volunteers steward the Ocean Friendly Garden at Beyond Baroque in Los Angeles, California.

The Ocean Friendly Gardens program continued to build momentum across Surfrider’s chapter and club network in 2025, with several exciting new projects, community partnerships, and campaign victories. OFG activities support healthy coastal ecosystems and empower volunteers through hands-on training opportunities to incorporate OFG principles into how they care for their own yard and community green spaces.

**The Ocean Friendly Gardens program continued to build momentum in 2025.**

**49**

Ocean Friendly Gardens

**26.4**

Acres Covered



**23 million**

Gallons of Runoff Filtered Annually

**Florida**

The Space Coast Chapter’s OFG program focuses on restoring native habitats and reducing the flow of polluted runoff into the Indian River Lagoon. In 2025, they added 195 native plants to the Indialantic bioswale, transforming drainage ditches covered in shallow-rooted turf grass into a diverse native habitat. The chapter also continued to steward the buffer gardens they planted the previous year at Ballard Park. Both projects put native plants to work to soak up stormwater and filter out nitrogen and other pollutants before they flow into the lagoon.

A little further south, the Broward County Chapter certified several gardens, registering them on the national OFG map. The chapter also held a dedication event at the Everglades Outdoor Classroom in Flamingo Gardens, spotlighting their efforts to meet the OFG criteria.



**Left & Top Right:** Volunteers plant native plants in several bioswales along a popular walkway to filter runoff and create wildlife habitat in Indialantic, Florida. © Dominic Agostini **Bottom Right:** Broward chapter volunteers certify an OFG at Flamingo Gardens in Davie, Florida.

## Northeast & Mid-Atlantic

Last year, the Eastern Long Island Chapter continued to build its volunteer capacity to steward their large community gardens in East Hampton, NY – the [Methodist Lane Bioswale](#) and [Village Green Bioswale](#). The chapter led 25 OFG workdays in 2025, removing invasive weeds and trash from the bioswales, and refreshing the gardens with new plantings. This ongoing stewardship is necessary to keep the gardens functioning to absorb and filter stormwater runoff. It also helps maintain a positive community perception of these very public OFGs as beautiful examples of native gardens to be replicated at home and throughout the community.

In Maryland, the Annapolis High School Club partnered with the Annapolis Maritime Museum to plant a new Ocean Friendly Garden in front of the museum’s waterfront pavilion to reduce runoff flowing into a nearby creek that leads to the Chesapeake Bay.

In New York City and New England, Surfrider chapters are advocating for policy changes to reduce the impact of stormwater and landscaping chemicals in coastal waterways. The New York City Chapter is advocating for more green infrastructure in street medians to increase permeability and provide more community access to green space. In Falmouth, Maine, the chapter successfully advocated for a [new pesticide ordinance](#) to ban the use of neonic pesticides, which are highly toxic to pollinators and shellfish, and the application of any pesticides and fertilizers near waterways and storm drains. Meanwhile, the Connecticut Chapter joined the Connecticut Pesticide Reform Coalition to help pass a [statewide ban on neonic pesticides](#). The chapter is now supporting efforts to monitor waterways for other pesticides and working towards broad regulations to limit pesticide use across the state.



**Left & Top Right:** Volunteers help tend the community gardens on Eastern Long Island. **Right:** Annapolis High School Club members plant an OFG at the Maritime Museum.

## California

In Southern California, the Long Beach Chapter collaborated with the City of Long Beach to transform over 10,000 sq ft of grass lawn along the city's waterfront into Ocean Friendly Gardens. The Long Beach Utilities Department and the Marine Bureau have been instrumental in supporting these new OFG installations, and are committed to their ongoing maintenance so they will thrive for years to come. This successful collaboration shows how scalable changes in public landscapes can be made while complying with state bill AB 1572 that phases out the use of potable (drinking) water on non-functional grass lawns. The City of Long Beach is leading by example and taking proactive strides to support resilient, beautiful gardens. To build awareness of these OFG projects and the critical connection between landscapes and local waterways, the chapter also hosted an interactive [community mural painting](#).

The North Orange County Chapter hosted two volunteer workdays each month at public parks in Seal Beach and Huntington Beach to install native plants, steward water-retention features, and pull weeds. Meanwhile, volunteers with the Ventura County Chapter continued their monthly workdays to tend the OFG installed at Loma Vista

Elementary School 12 years ago. Also, the San Francisco Chapter installed a new OFG at Argonne Elementary School, featuring swales to collect rainwater, permeable oyster-shell pathways, and native plants.

This past year, the Los Angeles Chapter and community were left to deal with the aftermath of the Palisades and Altadena fires, which devastated the coast in January 2025. Beyond the damage to personal property, health, and businesses, coastal water quality was also affected by fire debris and ash entering the ocean. At Kuruvungna Village Springs in Santa Monica, the OFG installed with community partners the previous year successfully diverted toxic ash from the parking lot during a post-fire rain event. The native plant-filled bioswale intercepted ash-contaminated runoff that would have otherwise polluted the freshwater spring that leads to Santa Monica Bay, and instead directed it to soak into the soil. In the fall of 2025, the chapter returned to Kuruvungna Springs to plant an additional [157 native plants in the bioswale](#). They also hosted a public [OFG and fire resilience panel](#) with experts discussing how our landscapes can support resilience in the face of climate-fueled firestorms.



**Top Left:** Volunteers from the Long Beach Chapter and Long Beach Utilities join community members to paint a mural adjacent to the Ocean Friendly Garden at Shoreline Village. **Right:** Volunteers replace 6400 sq ft of grass lawn with rainwater retention features at the Alamitos Bay Marina in Long Beach.

## Hawai'i

On O'ahu, chapter volunteers continued to care for the Kaka'ako Ocean Friendly Garden, an oasis of green space and native plants in a heavily developed urban area of Honolulu. The spongy living soils and deeply rooted plants help absorb runoff from the adjacent parking lot before it flows into two storm drains located centrally in the garden. The Kaka'ako OFG also serves as a vibrant community hub for harvesting fruits and vegetables, sharing knowledge about Hawaiian plants, and enjoying cool, shaded green space. The chapter hosts monthly public workdays, educational workshops and tours, and partners with a composting organization to collect food scraps from residents and businesses in the neighborhood.

On Maui, Surfrider teamed up with wildfire experts to develop easy-to-understand guidance for people returning to their homes in Lahaina and West Maui after the wildfires. A new guide, *Re-planting After Fire: A Fire-Resilient Landscape Guide for Lahaina & West Maui*, was launched by the chapter and its partners to help residents create and maintain landscapes that are fire-resilient, environmentally responsible, and ocean-friendly. The chapter's OFG program has also scaled up massively this year by establishing new partnerships and hosting hands-on community projects across the watershed. You can learn more about the Fire-Resilient Landscape Guide and the Maui Chapter's OFG projects in the following case study.



**Top:** O'ahu Chapter volunteers perform maintenance at the Kaka'ako Ocean Friendly Garden. **Bottom:** The Surfrider Maui Chapter and Aloha Pu'u Kukui hosted more than 100 community members to plant native trees in the Pu'u Kukui watershed above Honolulu Bay.

# Case Studies



# Maui, Hawai'i

## Testing the Water, Restoring Watersheds, and Growing Ocean Friendly Gardens for a **More Resilient Maui**

The Hawaiian Islands provide warm weather, an abundance of surfing and ocean recreational opportunities, and coastal waters brimming with marine life. However, the archipelago's remote location in the middle of the Pacific Ocean puts them on the front lines of a changing climate. In recent years, the island of Maui has experienced dynamic extremes with severe storms, prolonged drought, and devastating wildfires.

Many factors contributed to the 2023 Maui wildfires. A history of land management and water diversions allowed fire-prone invasives to dominate much of the landscape, especially in West Maui. The island was also experiencing climate-change-driven drought and hurricane-force winds when the fires sparked.

On the other extreme, the Hawaiian Islands experienced a 1-in-1000-year storm when back-to-back Kona storms dumped 2 trillion gallons of water on the islands during March 2026. Peak rainfall totals of up to 62 inches were recorded by the [Hawai'i Mesonet UH weather monitoring system](#) in some areas of Maui. The summit of Haleakalā received 33 inches of rain over just 24 hours, nearly

doubling the previous 24-hour record. With this climate reality clearly in mind, the Surfrider Foundation Maui Chapter has been forming and nurturing community partnerships to not only better protect and enjoy our ocean, waves, and beaches, but also to help foster a more climate-resilient future for the island and the people who call it home.

Before the wildfires devastated Lahaina and other areas on West Maui in August 2023, the chapter was monitoring fecal bacteria levels at approximately 15 beaches on the North Shore and in South Maui with its Blue Water Task Force (BWTF) program. Chapter activists were also supporting testing at four sites in Hana performed by students at Hana High School, but had not yet tested anywhere on West Maui. In the months following the wildfires, there were many questions about the safety of coastal waters at the beach near the burn zone and along the entire west side of the island. There was some limited government and university testing of air, soil, and coastal waters, but no one was answering the question the Maui Chapter was receiving over and over again from the local community — “Is it safe to swim yet?”



Baby Beach on the North Shore of Maui.

To answer this question, Surfrider developed the [Maui Post-Fires Coastal Water Quality Monitoring Program](#). During two sampling events (one in wet weather in January 2024 and another in dry weather later in June), water samples were collected from eight sites on West Maui. Samples were analyzed for not only fecal indicator bacteria, but also fire-related contaminants, including heavy metals and PAHs (Polycyclic Aromatic Hydrocarbons). Fortunately, test results did not show any evidence of lingering fire-related contamination that posed a risk to human health. The Maui Chapter was very happy to [share this valuable water quality information](#) with the local community, allowing people to safely return to the water. Since then, the chapter has continued testing the beaches on West Maui for fecal bacteria through their regular BWTF program, providing water quality data to inform safe recreation at over 30 beaches island-wide every month.

To help communities on Maui move forward in the recovery process, Surfrider teamed up with [Pacific Fire Exchange \(PFX\)](#), the [Hawai'i Wildfire Management Organization \(HWMO\)](#), and other expert contributors to develop [Re-planting After Fire: A Fire-Resilient Landscape Guide for Lahaina & West Maui](#). This handbook provides easy-to-understand guidance for people returning to their homes

after the West Maui fires and for other communities living in fire-prone areas to create and maintain landscapes that are fire-resilient, environmentally responsible, and ocean-friendly. It explains how fires spread, and introduces the concept of Home Ignition Zones. Starting with the home itself and moving out into the landscape, the guide offers practical tips for each zone and how to maintain a “Lean, Clean, & Green” landscape. The guide connects fire-resilient practices with waterwise tips to keep landscapes hydrated responsibly in dry climates, and also includes a fire-resilient plant list and example landscape layouts for inspiration. While the plant recommendations are tailored to Lahaina and West Maui, the broader concepts of fire-resilient landscaping apply to seasonally dry climates across Hawai'i and beyond.

To publicly launch the Fire-Resilient Landscape Guide, HWMO and Surfrider hosted an online [webinar](#) and are continuing to distribute printed copies of the guide at public events. With the right plants, smart planning, and simple maintenance, communities can work together to reduce the chance that homes and neighborhoods will burn when wildfires occur. One yard may seem small, but when neighbors work together and use fire-resilient landscaping principles, it strengthens protection for the entire community.



**Left:** Water samples are collected in front of the burn zone in Lahaina. **Right:** Kristina McHugh, volunteer leader of the Maui Chapter's BWTF, collects a water sample.

## Fostering Community Partnerships to Grow Ocean Friendly Gardens

As recovery continues on Maui, the chapter's Ocean Friendly Gardens (OFG) program has also scaled up through partnerships and impactful hands-on projects across the watershed. Chapter OFG coordinator, [Heidi Beltz](#), is educating the next generation of watershed stewards in her role as a garden teacher at the Kamehameha III Elementary School in Lahaina. Heidi even successfully advocated for her HOA to stop spraying herbicides in a stormwater basin and to allow her to plant more native plants and trees.

In April 2025, the Maui Chapter hosted its very first workday with the [Kahākūkahi Ocean Academy](#) to install a new Ocean Friendly Garden. The academy is a youth engagement center that empowers keiki (children) through ocean sports, environmental stewardship, and a deep connection to the 'āina (land) and kai (sea). The goal for the new garden is for it to serve as an outdoor classroom to teach keiki about native Hawaiian plants, their cultural and ecological significance, and their role in supporting a healthier ocean.

The chapter is also partnering with [Grow Some Good](#) to recruit volunteers for monthly workdays at the [Nā Māla Kaiāulu community garden](#) at the Kahului YMCA. With a mission of cultivating a healthy community through improved access to nutritious, affordable food, Grow Some Good transformed a 4-acre, fire-prone lot in urban Kahului into a thriving ecosystem filled with native plants and a

tropical food forest. The Maui Chapter is stoked to help keep this community garden thriving and to engage more community volunteers in sustainable food production and gardening practices.

To help protect Honolua Bay, a famous surf spot and popular snorkeling destination where the Maui Chapter's BWTF monitors water quality, the chapter has partnered with [Aloha Pu'u Kukui](#) to plant nearly 3000 native trees and plants in the upstream watershed. Healthy, intact native forests slow runoff, stabilize soils, and filter sediment and nutrient pollution before it reaches the ocean. When upland landscapes are degraded, those protective functions are diminished, and water quality suffers. Watershed restoration is essential to supporting clean water and ecosystem resilience in Honolua Bay.

These collaborative OFG projects not only reduce stormwater runoff locally, but they also support the long-term resiliency of Maui as it faces a dynamic and changing climate. There is still much work to be done as communities across Maui work to recover from wildfires and Kona low flooding, but the Maui Chapter and its local partners are energized to be united in purpose to inform and collaborate on a sustainable path forward to protect safe communities, healthy watersheds, and a clean ocean for all to enjoy.

*'A'ohē hana nui ke alu 'ia. No task is too big when done together by all. (Pukui 142)*



**Left:** The Surfrider Maui Chapter and Kahākūkahi Ocean Academy collaborate to install an Ocean Friendly Garden. **Right:** Maui OFG Coordinator Heidi Beltz plants a koa tree alongside more than 100 volunteers in the Pu'u Kukui watershed above Honolua Bay.

# San Mateo County, California

## Leveraging Community Power to Investigate Pollution and Inform Solutions at Linda Mar Beach

Located less than twelve miles south of San Francisco, surfers of all abilities and ages flock to Pacifica State Beach, or Linda Mar as it's referred to locally, to enjoy consistent swells and gentle rolling waves. The crescent-shaped shoreline of Linda Mar Beach extends for nearly a mile, with room for newcomers and seasoned surfers alike. Linda Mar's mellow waves and gradual sloping shoreline has earned it a reputation as a hub for surf schools and youth contests. You can often find children playing in the surf or in San Pedro Creek, which flows across the sand and empties into the ocean here.

Unfortunately, the creek often carries polluted runoff from the urban watershed of Pedro Valley down to the beach at Linda Mar. The [San Mateo County Surfrider Chapter](#) has been collecting samples at the mouth of San Pedro Creek through its Blue Water Task Force (BWTF) program

for over 12 years, and test results frequently yield high bacteria levels that pose a human health risk. In fact, water collected at Linda Mar Beach, where the San Pedro Creek meets the Pacific Ocean, failed to meet health criteria for fecal indicator bacteria 72% of the time it was tested in 2025. This means that nearly three out of four water samples collected had a higher bacteria concentration than is deemed safe for swimming and surfing by state and federal health agencies.

The San Mateo County Chapter posts its test results from Linda Mar and five other creeks and beaches they test every week at [bwtf.surfrider.org](http://bwtf.surfrider.org). The chapter shares this data through [social media](#) for broad community distribution, and present data trends from all of their sampling sites in an [annual water quality report](#) to further build public awareness of local water quality conditions.



The San Pedro Creeks empties into the Pacific Ocean at Linda Mar Beach in Pacifica, California. 📷 Kathryn Wheeler

The [San Mateo County Health Department](#) also monitors water quality in the surf and at the creek mouth at Linda Mar Beach, and will post swim advisories when its test results exceed health standards. Years of consistently high bacteria levels have landed Linda Mar Beach on Surfrider’s Beach Bacteria Hot Spots list for many years running. San Pedro Creek and Linda Mar/Pacifica State Beach have also been placed on the impaired water bodies list under the Clean Water Act for consistently documented bacterial contamination.

Despite the well-documented water quality problems, there has been little political momentum for pinpointing and fixing the sources of pollution. Past studies in the San Pedro Creek watershed have identified a number of potential sources of pollution, including old sewer laterals that leak sewage into the creek, stormwater and dry weather runoff, and animal waste from dogs, horses, birds,

and other wildlife. Surfers and beachgoers also complain of a sewage smell coming from a nearby pumping station that frequently fails during wet weather, but addressing these infrastructure problems costs money, and other than a small grant to assist homeowners with sewage lateral inspections and repairs, the City and County have come up short.

Seeking to bring about real change, Surfrider volunteers joined forces with a diverse coalition of environmental and surfing organizations to address the ongoing pollution problems at San Pedro Creek and Linda Mar Beach. The [Linda Mar Water Quality Coalition](#) is a grassroots alliance consisting of the Surfrider San Mateo County Chapter, Salted Roots, the San Pedro Creek Watershed Coalition, Cultivar Foundation, and the Pedro Point Surf Club. Volunteers from these organizations are working together to raise awareness and generate water quality data that will inform and hopefully motivate solutions.



Volunteers collect water samples from San Pedro Creek and Linda Mar/Pacifica State Beach. © Kathryn Wheeler

Weekly enterococcus and E.coli testing is being performed at four sites along San Pedro Creek to identify bacteria hot spots and hone in on where pollution is entering the creek. In July 2025, they also launched DNA-based testing to pinpoint specific sources of pollution in the watershed. This cutting-edge approach allows them to distinguish between human and specific species of animals that are contributing to the fecal bacteria load, and provides data that could guide targeted solutions in the watershed. The results so far indicate a high level of human fecal contamination during and after rainstorms. You can learn more about the coalition's work in this great article from [Coastside News](#).

While the results of the pollution point source study are pending, the Linda Mar Water Quality Coalition is continuing to raise awareness and educate the public about the pollution challenges at community events, including the Earth Day Ecofest, the San Pedro Surf Club's Big Chill Out,

Grom Fest, and monthly San Pedro Creek Cleanups with the Pacific Beach Coalition. At these events, coalition members are speaking directly to the public about the need for local pollution solutions and how beachgoers can take steps to protect their families' health, such as:

- Surfing and swimming away from the mouth of the creek. Water quality conditions are usually safe north of the Taco Bell, except after storms.
- Follow rain advisories and stay out of the water for 72 hours after it rains, and
- Don't let your kids play in the creek!

The Surfrider Foundation San Mateo County Chapter and the Linda Mar Water Quality Coalition would like to thank the Rose Foundation, the Stone Family Foundation, and the Resources Legacy Fund for supporting our work at Linda Mar Beach and in the San Pedro Creek.



**Left:** Mitch Milligan, volunteer leader of the San Mateo County Chapter's BWTF, processes a sample in the lab. **Right:** A water sample (top) and coalition partners (bottom) at the BWTF lab in Pillar Point Harbor, California. © Kathryn Wheeler

# North Orange County, California

## Nurturing **Native Gardens and Community Leaders** With Ocean Friendly Gardens

Located just south of Los Angeles, Orange County is characterized by dense residential development with pockets of commercial and industrial activity. Water scarcity and urban runoff are the two biggest water resource issues, yet perfectly manicured green lawns continue to be the default for residential yards and city parks. Traditional lawns consume copious amounts of water and contribute lawn chemicals like weed killers, pesticides, and fertilizers to polluted runoff.

To incentivize water conservation, local water municipalities offer lawn-to-garden rebates to help residents remove traditional water-guzzling turf lawns and replace them with water-conserving landscapes. When many of the lawn-to-garden rebates were developed in Southern California over a decade ago, the Surfrider Foundation advocated for these programs to align with our Ocean Friendly Gardens (OFG) [program criteria](#). These rebates now require rainwater-harvesting features, like swales or rain gardens, encourage the use of native plants, and do not allow plastic artificial turf.

While lawn-to-garden rebates have helped incentivize changes at the residential level, many public landscapes

still reflect outdated practices. To meet the growing appetite for resilient public landscapes and the hands-on skills needed to maintain these biodiverse, living systems, the [North Orange County Chapter \(NOC\)](#) of the Surfrider Foundation hosts two workdays every month to steward two neighborhood parks. The chapter's Ocean Friendly Gardens Coordinator, [Paige Brue](#), brings valuable expertise from her background in stormwater engineering and years of leading OFG activities.

Garden workdays are well attended as the chapter advertises these events widely through social media and its newsletter. Garden activities vary seasonally. During hot, dry weather from late spring through summer, volunteers help remove invasive weeds, spread mulch, and tend to existing plants by watering, pruning, or collecting seeds. During cooler weather from fall through early spring, new plants are added, seeds are sown, and rainwater-retention features like swales and rain gardens are installed. In 2025, the NOC Chapter's OFG events engaged 600 volunteers, planted 217 native plants and trees, and removed hundreds of pounds of invasive species!



Seal Beach shoreline in Orange County, California.

But the impact doesn't stop at the garden's edge. Each volunteer who joins in and helps out builds a personal understanding of sustainable landscaping practices and skills that they can apply at home to make a positive impact in their own neighborhood. The NOC OFG program is also nurturing community leaders. At each of the parks the chapter helps maintain, a community member has stepped up to be a site captain to lead each workday. These core volunteers were not previously expert gardeners or landscapers, just community members who are passionate about protecting and improving their local green spaces.

At Irby Park in Huntington Beach, the site captain is Amanda Furches. Amanda is a member of a local tree society and was inspired by the natural ecosystem that had persisted for so long at the park, despite the minimal care and attention it received. Irby Park is an open field

with a walking path that meanders around the perimeter, with several areas that flood and form a pond during winter rains. Among the tall weeds, many native salt meadow and wetland plants have persisted, and the park is full of wildlife, including hawks, owls, songbirds, and bumblebees. City crews used to tend the park once each summer by mowing down the weeds and pumping out any lingering water into the storm drains of the nearest street. Amanda first tackled improving the park by planting more native plants and trees. When she connected with Surfrider and began co-hosting monthly workdays at Irby Park, the chapter was able to support her efforts by recruiting more volunteers and supplying plants and tools. Irby Park now has several bioswales, deeply rooted trees, and many species of native plants blooming throughout the year. Stormwater is no longer being treated as a problem to be disposed of, but rather as a valuable resource, with rain directed towards swales and native vegetation to soak into the ground.



Volunteers plant native plants and maintain bioswales at Irby Park in Huntington Beach.

River's End Park in Seal Beach is the other public park the NOC Chapter's OFG program is actively stewarding. This park is adjacent to the outlet of the San Gabriel River and was created as mitigation for the development of a nearby residential area. River's End Park is maintained by the City of Seal Beach and features walking trails with great ocean views, as well as a stormwater retention basin that captures polluted runoff from adjacent houses and streets. Unfortunately, River's End Park also had many weeds and bald spots between areas of native plants.

A neighbor who enjoys bird watching, Rheo McColl, became concerned about the state of the park. Rheo started pulling weeds and contacted the city to fix the broken irrigation. She also received permission to add more diverse native plants to the park. Once Rheo connected with the North OC Chapter to host workdays, she had ample help from Surfrider volunteers to add native plants that provide food and habitat for birds, pollinators, and other local wildlife. The deep roots of these native plants also support healthy, living soil to soak up rain and runoff. Volunteers are still working to remove the more pervasive weeds and establish greater plant cover in the stormwater basin to improve infiltration. The workdays at River's End have been

a proactive way for the chapter to support water quality upstream and enhance resilient wildlife habitat.

The consistent stewardship activities at River's End Park have also sparked conversations about the nearby sand dunes. These remnant dunes lack clearly defined pathways or symbolic fencing to restrict motor vehicles, so they are routinely trampled by e-bikes and foot traffic. The core volunteers who are restoring native plants at River's End Park are now working with the city to get the permits needed to protect the dunes and restore dune habitat. Through OFG activities, the chapter has built trust and rapport with the City of Seal Beach and is excited to see how this partnership develops to support interconnected, resilient habitats and neighborhoods along this unique coastal area.

The model of site captains working in tandem with the chapter's program coordinator has significantly increased the scale and capacity of the North Orange County Chapter's OFG program. Through these consistent hands-on community workdays, the chapter is protecting clean water and engaging its community in stewarding nature-based solutions that support healthy, resilient watersheds.



North Orange County OFG Coordinator Paige Brue (left) leads a volunteer work day at River's End Park.

# Cape Fear, North Carolina

## Keeping Beaches Safe and Accessible for All People with the Blue Water Task Force

Cape Fear is a region steeped in history, located in southeast North Carolina, where the Cape Fear River meets the Atlantic Ocean. Home to the City of Wilmington, Cape Fear is blessed with scenic beaches, winding waterways, and abundant opportunities to enjoy the coast. From surfing and swimming to fishing and boating, residents and visitors alike enjoy spending time on and in the water.

Like other coastal states, however, North Carolina's water quality is affected by stormwater runoff, agricultural runoff from inland areas, and aging wastewater infrastructure. Sewage and animal waste put public health at risk in coastal waterways and fuel harmful algal blooms that cause fish kills and disrupt aquatic ecosystems.

To address these concerns, the Cape Fear Chapter started monitoring water quality at their local beaches in 2023, bringing the Blue Water Task Force (BWTF) to North Carolina for the first time. The chapter partners with the University of North Carolina Wilmington's (UNCW) Center for Marine Science to monitor ocean beaches and public access

points along the Intracoastal Waterway. Their program helps fill gaps left by the North Carolina Department of Environmental Quality (NC DEQ) beach program. While the DEQ tests beaches weekly during the summer, testing drops to monthly in the off-season, leaving gaps in public health protection while surfing, swimming, and other types of ocean recreation remain popular. By providing bi-weekly year-round monitoring, the Cape Fear BWTF ensures more consistent coverage and safer beaches throughout the year.

Overseen by program lead Ayanna Mitchell, volunteers collect water samples and deliver them to the university lab, where students test them for enterococcus bacteria. The partnership is a win-win for both the chapter and participating university students. Students gain valuable hands-on lab experience while exploring career opportunities in water quality and environmental science. In turn, the chapter benefits from its association with an academic research laboratory, and the volunteers do not have to shoulder the responsibility of performing the lab analyses and the associated quality controls.



Wrightsville Beach in North Carolina.

To help keep the public informed about water quality conditions and when it's safe to swim or surf at the beach, the chapter shares its test results widely within its community every time it samples. All of the chapter's data is posted on Surfrider's [BWTF website](#) and is shared in a water quality report via [social media](#). The chapter also shares an [end-of-year report](#) summarizing their data and discussing annual trends.

So far, results from the Cape Fear BWTF program have been generally clean. There have been occasional instances of elevated bacteria levels, usually following rain, and the chapter quickly alerts the public when this happens. Looking ahead, the chapter is excited to continue expanding its monitoring program and engaging more volunteers to keep Cape Fear's beaches and waterways safe for everyone to enjoy.

## All In the Water Program

In addition to its water quality work, the Cape Fear Chapter also leads the [ALL in the Water \(Aquatic Love & Learning\) program](#), which focuses on expanding access to the ocean and local waterways for people of all backgrounds. This collaborative initiative addresses historical inequities that have made it difficult for some community members to safely enjoy coastal waters, while strengthening participants' connection to and appreciation of the water. Now entering its fifth year, the program offers free swim lessons, American Red Cross lifeguard certification, surf instruction, kayak eco-education expeditions, and opportunities to explore ocean-related career pathways. Through hands-on experiences and skill-building activities, ALL in the Water helps participants overcome barriers, gain confidence in the water, and develop a lasting appreciation for the ocean and coastal environment.



**Top Left:** Cape Fear BWTF program lead, Ayanna Mitchell. **Bottom Left:** A volunteer records test results in the lab. **Right:** Youth participants enjoy a kayak eco-education expedition as part of the ALL in the Water program.

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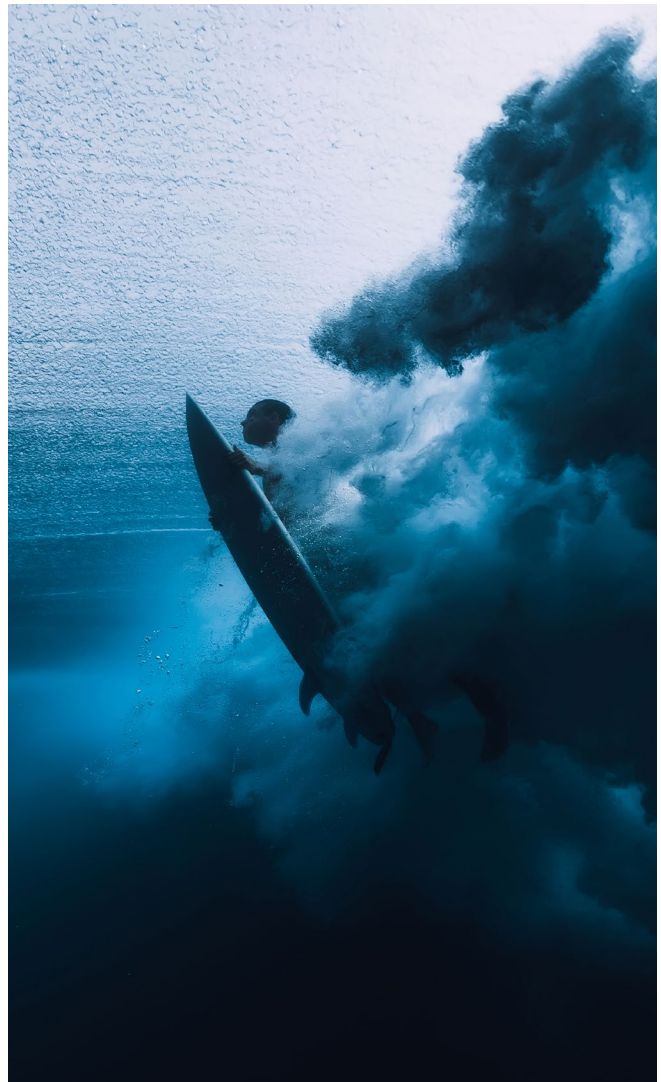
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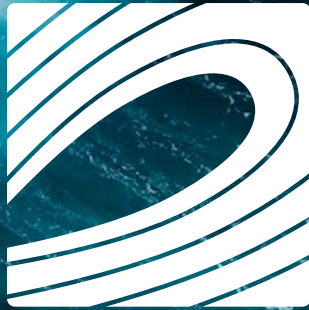
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