

An aerial photograph of Alamitos Bay, showing a large body of water with a sandy beach on the left, numerous boats in the water, and a dense residential area with many houses and buildings along the shoreline. A large white circle is superimposed over the center of the image, containing the text "ALAMITOS BAY" and "Environmental Programs".

# ALAMITOS BAY

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## Environmental Programs

POWERED BY





# ABOUT ME – KATIE ALLEN



Born & Raised in  
Long Beach, CA



Career as Musician  
& Assistant to VP  
Warner Bros Records



After seeing Charlie on David  
Letterman in 2010, joined Algalita  
as Education Director. Became  
Executive Director in 2016.



Married in 2013, two boys – now 7 and 11.

## 15 YEARS AT ALGALITA!

# CHARLES MOORE / Long Beach, CA





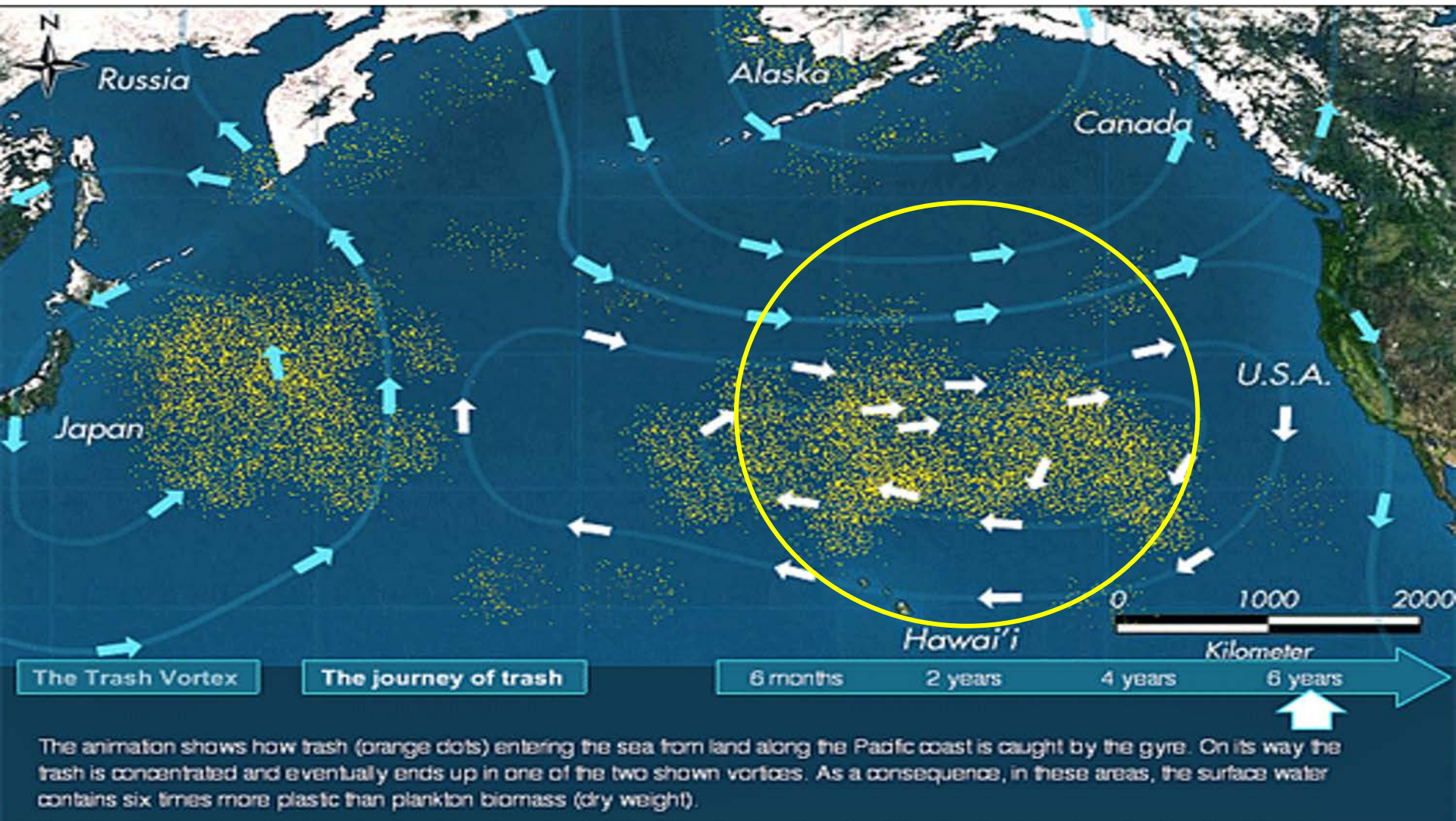
# FOUNDED ALGALITA IN 1994



KELP RESTORATION ALONG SO. CA & BAJA



# 1997 TRANSPAC RACE



THE GREAT PACIFIC GARBAGE PATCH (EASTERN NORTH PACIFIC GYRE)





**MAN IN THE PLASTIC BUBBLE** Captain Charles Moore smiles off a sample of our plastic ocean aboard the *Algalita* on his 2002 voyage to the gyre.

"Except for the small amount that's be

a sailing race, Moore had altered *Algalita's* course, veering slightly north. He had the time and the curiosity to try a new route, one that would lead the vessel through the eastern corner of a 10-million-square-mile oval known as the North Pacific subtropical gyre. This was an odd stretch of ocean, a place most boats purposely avoided.

For one thing, it was becalmed. "The doldrums," sailors called it, and they steered clear. So did the ocean's top predators: the tuna, sharks, and other large fish that required livelier waters, flush with prey. The gyre was more like a desert—a slow, deep, clockwise-swirling vortex of air and water caused by a mountain of high-pressure air that lingered above it.

The area's reputation didn't deter Moore. He had grown up in Long Beach, 40 miles south of L.A., with the Pacific literally in his front yard, and he possessed an impressive aquatic résumé: deckhand, able seaman, sailor, scuba diver, surfer, and finally captain. Moore had spent countless hours in the ocean, fascinated by its vast trove of secrets and terrors. He'd seen a lot of things out there, things that were glorious and grand; things that were ferocious and humbling. But he had never seen anything nearly as chilling as what lay ahead of him in the gyre.

It began with a line of plastic bags ghosting the surface, followed by an ugly tangle of junk: nets and ropes and bottles, motor-oil jugs and cracked bath toys, a mangled tarp. Tires. A traffic cone. Moore could not believe his eyes. Out here in this desolate place, the water was a

stew of plastic crap. It was as though someone had taken the pristine seascape of his youth and swapped it for a landfill.

How did all the plastic end up here? How did this trash tsunami begin? What did it mean? If the questions seemed overwhelming, Moore would soon learn that the answers were even more so, and that his discovery had dire implications for human—and planetary—health. As *Algalita* glided through the area that scientists now refer to as the "Eastern Garbage Patch," Moore realized that the trail of plastic went on for hundreds of miles. Depressed and stunned, he sailed for a week through bobbing, toxic debris trapped in a purgatory of circling currents. To his horror, he

**F**ate can take strange forms, and so perhaps it does not seem unusual that Captain Charles Moore found his life's purpose in a nightmare. Unfortunately, he was awake at the time, and 800 miles north of Hawaii in the Pacific Ocean.

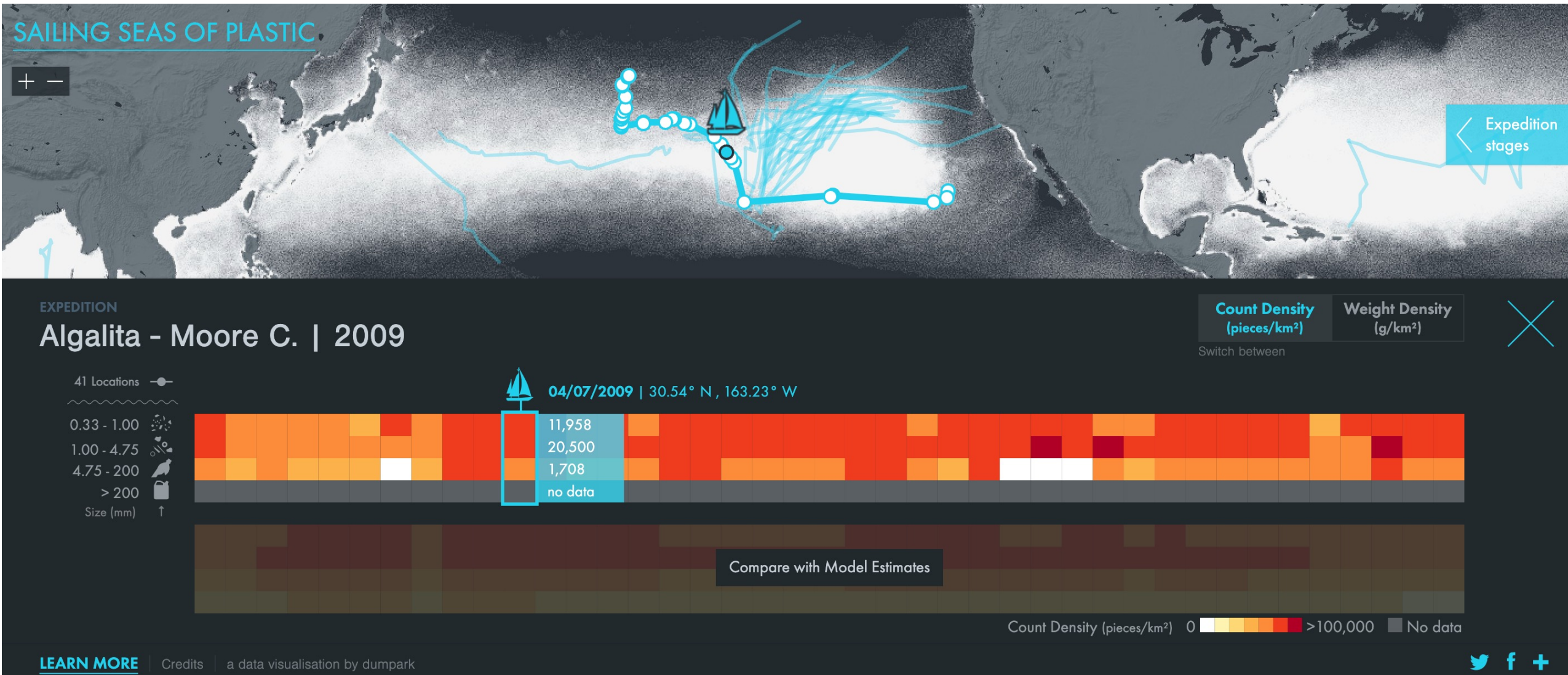
It happened on August 3, 1997, a lovely day, at least in the beginning: Sunny. Little wind. Water the color of sapphires. Moore and the crew of *Algalita*, his 50-foot aluminum-hulled catamaran, sliced through the sea.

Returning to Southern California from Hawaii after

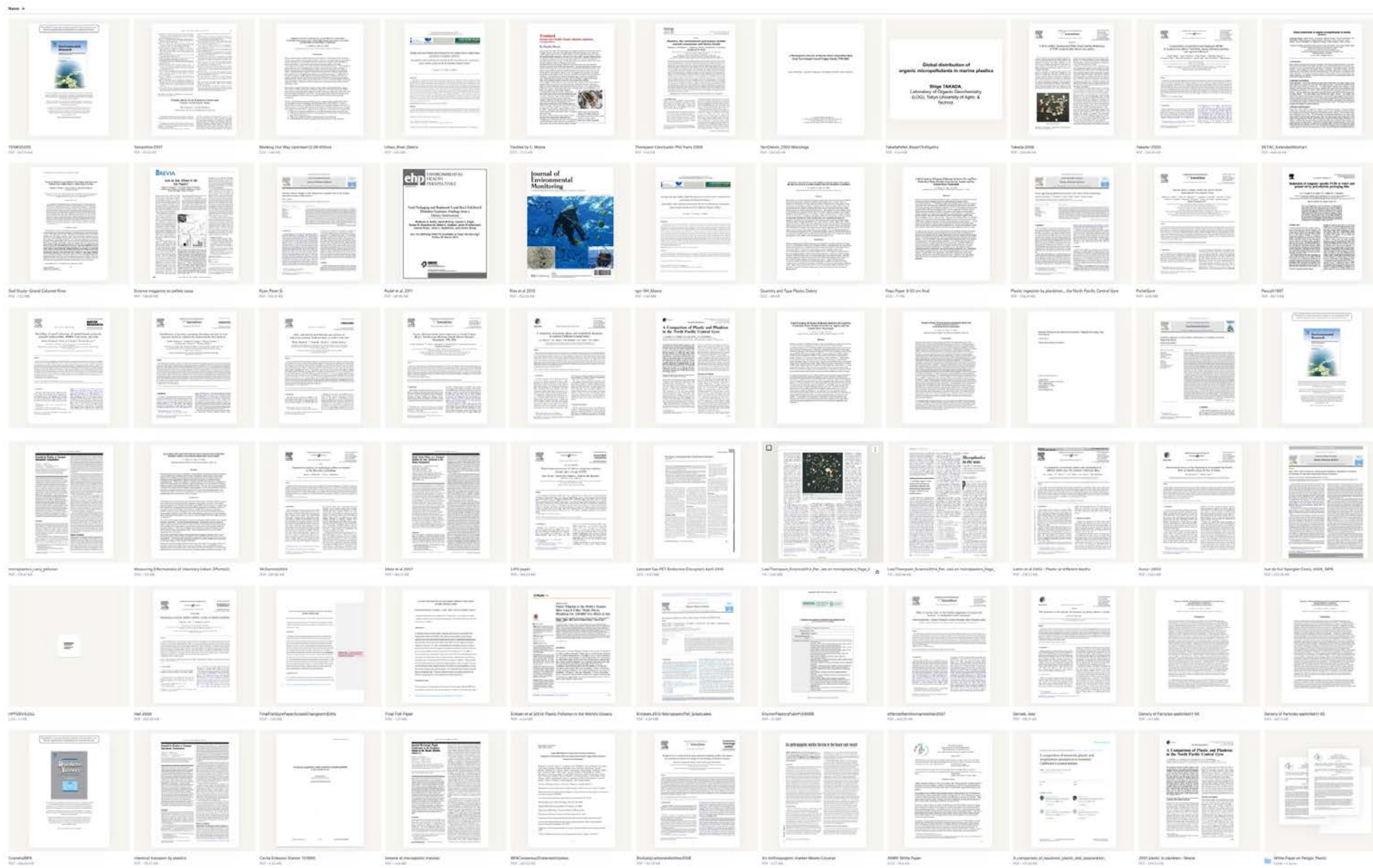




# 1999 – 2019 / 12+ NPG Monitoring Expeditions



# DOZENS OF PEER-REVIEWED







RESEARCH  
MISSION  
ACHIEVED!

OCEAN

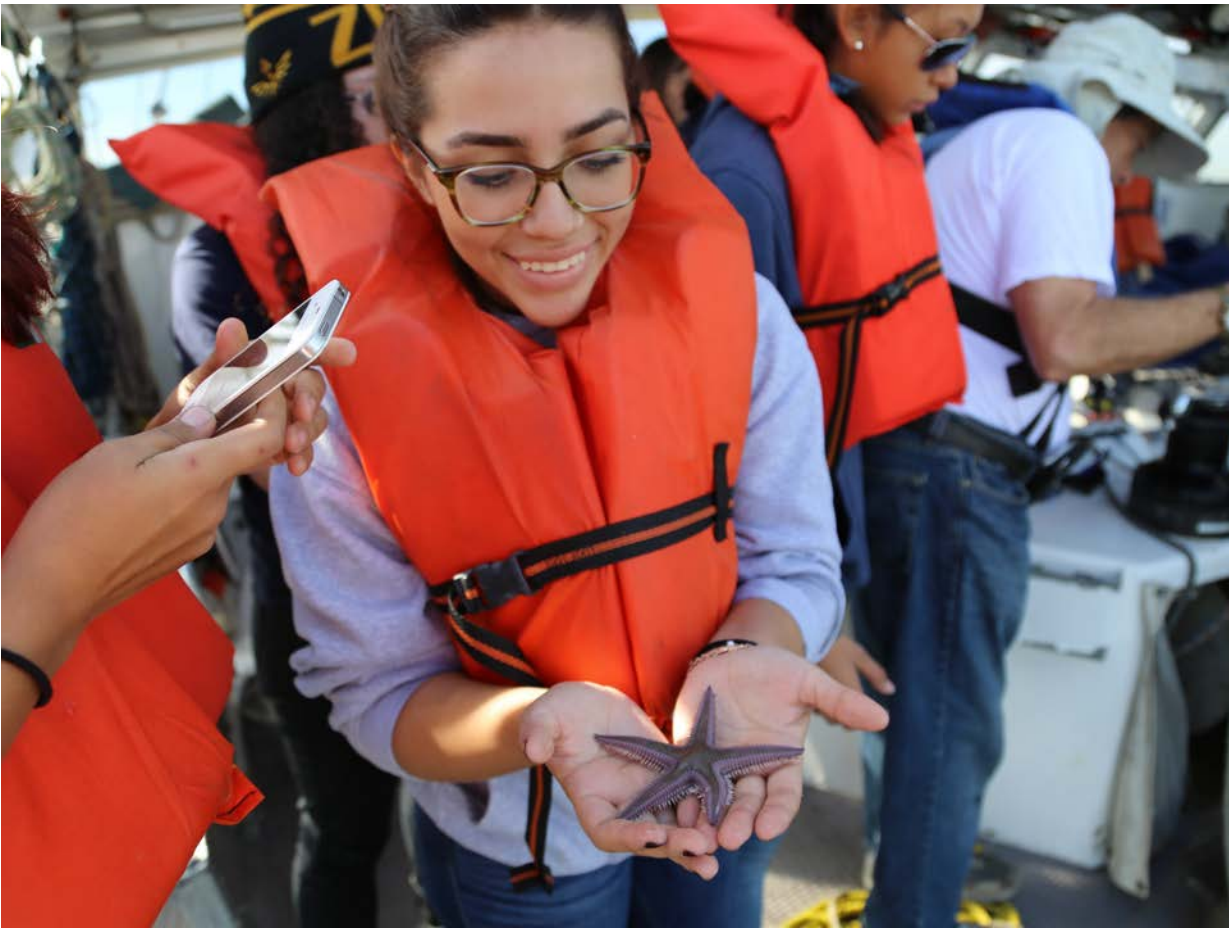
2015 - 2020



NEW VISION

BIOSPHERE



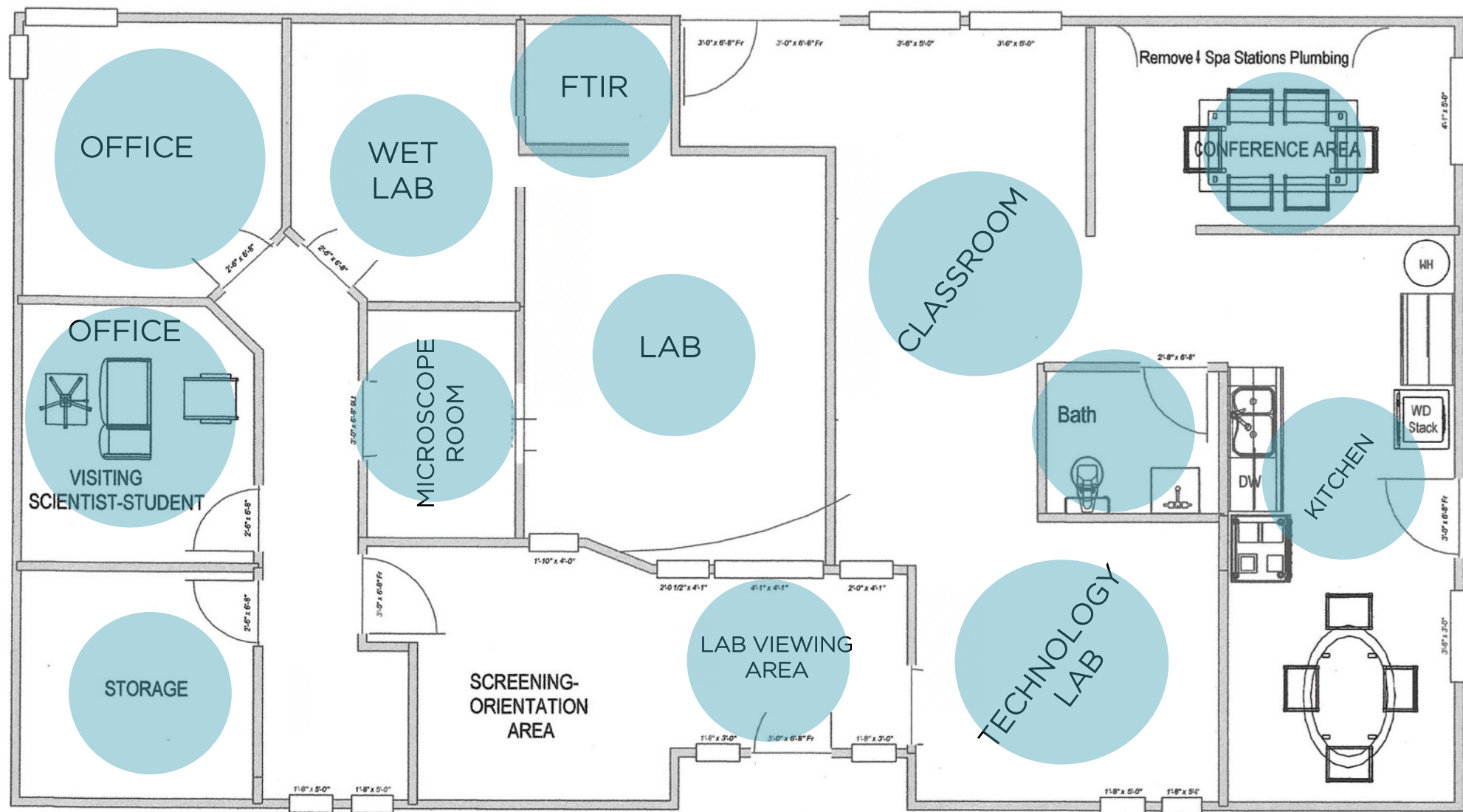








# Moore Plastic Pollution Research & Learning Center

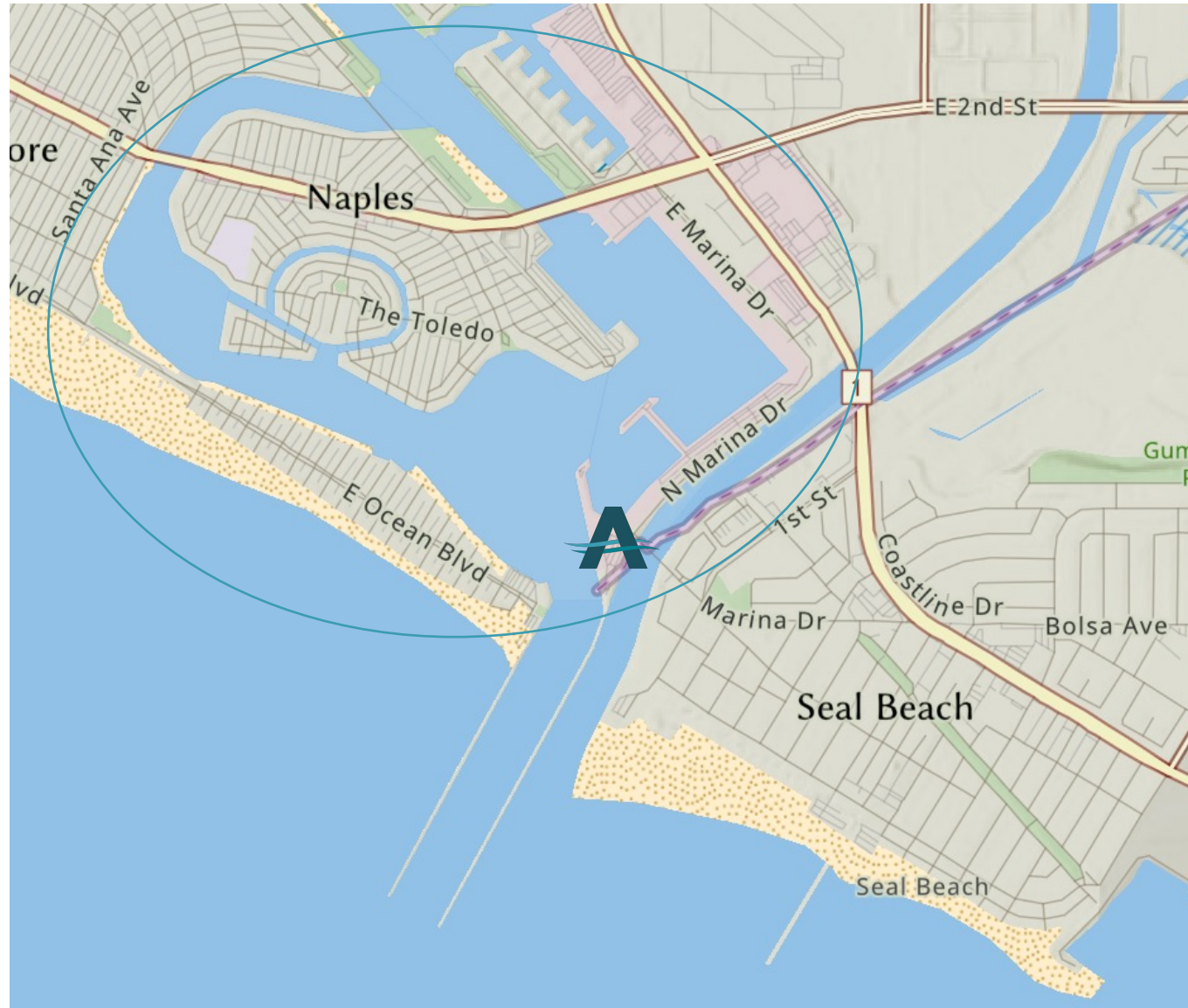


ALGALITA  
OFFICE  
430sq ft

PROTO  
LAB  
264sq ft



# LOCATED AT THE ENTRY POINT TO ALAMITOS BAY





# KAYAK EXPLORERS

## OCEAN SCIENCE PROGRAM











# OCEAN ACTION LEADERSHIP CAMP

*Join us for an engaging FREE summer experience—where 60 Long Beach youth dive into hands-on ocean exploration, build leadership skills, and make a real impact on the environment!*

**DATES: JULY 7 – AUGUST 18, 2025**

**MEET ONE DAY PER WEEK FROM 10AM–3PM**

**YOUTH AGES 12–18 CAN APPLY!**



## THE EXPERIENCE:

KAYAK IN  
THE BAY

WATER QUALITY  
MONITORING

LEADERSHIP  
WORKSHOPS

RESEARCH  
MICROPLASTICS

LEAD BEACH  
CLEAUPS

BE A CITIZEN  
SCIENTIST

## MAKE WAVES, TAKE ACTION!

*Hosted by Algalita Marine Research and Education, a Long Beach-based organization dedicated to tackling plastic pollution through science, education, and action.*







CLEAN BAY COLLECTIVE

Coming Soon to Alamitos Bay







# SAMPLING SITE STRATEGY

The sampling site design for this project has yet to be developed and will be determined through a collaborative planning process. The framework will include a mix of researcher sites and citizen science sites, each serving a unique purpose. Researcher sites will be located in areas requiring advanced testing methods or safety precautions, such as locations with poor accessibility or higher environmental risks. These sites will ensure the collection of detailed, scientifically rigorous data that complements the broader monitoring effort. Citizen science sites, on the other hand, will be selected based on accessibility and ease of sampling, enabling community members to contribute meaningful data while fostering local engagement. Additionally, the project may incorporate a scatter site design component, which involves selecting a variety of dispersed locations to capture a broader snapshot of water quality conditions across Alamos Bay. This combined approach ensures both the depth and geographical diversity of data collection, creating a comprehensive picture of the bay's water quality while empowering citizens to take an active role in environmental stewardship.





# WATER QUALITY TEST PRIORITIES

The program will focus on conducting critical water quality tests to provide a comprehensive understanding of Alamitos Bay's health. These tests may include measuring pH levels to assess acidity, dissolved oxygen to determine the water's capacity to support marine life, and nutrient levels such as nitrogen and phosphorus, which can indicate potential risks of harmful algal blooms.

Additionally, salinity measurements will help track tidal influences and ocean-bay interactions, while temperature readings can reveal seasonal or localized variations affecting aquatic ecosystems. In some areas, microplastics sampling may also be conducted to investigate pollution from plastic debris. Together, these tests will offer valuable insights into the bay's environmental conditions, supporting informed decisions and effective conservation efforts.

The goal will be to distribute (mostly) reusable water testing kits to individuals who sign-up and are trained to be Clean Bay Collective Citizen Scientists. The kits will include all materials and instructions needed to collect and report on quality data.





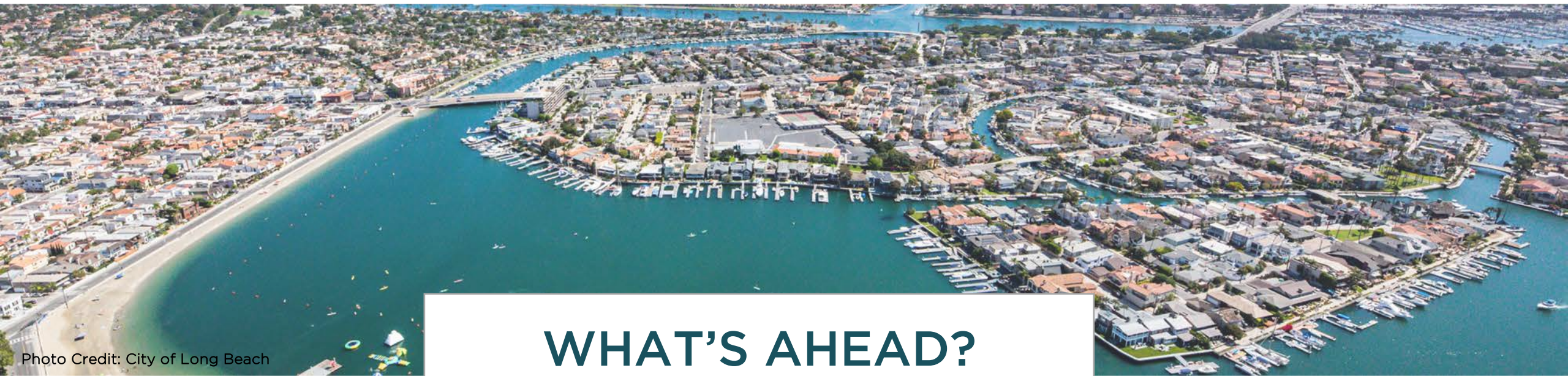


Photo Credit: City of Long Beach

# WHAT'S AHEAD?

## SUMMER 2025

- Community Survey & Interviews
- First Rounds of Water Quality Testing
- Student End of Summer Showcase
- Initial data analysis to identify early trends
- Create short community video stories based on interviews

## FALL 2025

- Begin recruiting and training a cohort of local citizens to serve as Clean Bay Collective Citizen Scientists
- Continue Water Quality Testing with Kayak Explorers & Citizen Scientists
- Launch Program Website
- Feature community stories and updates on the website

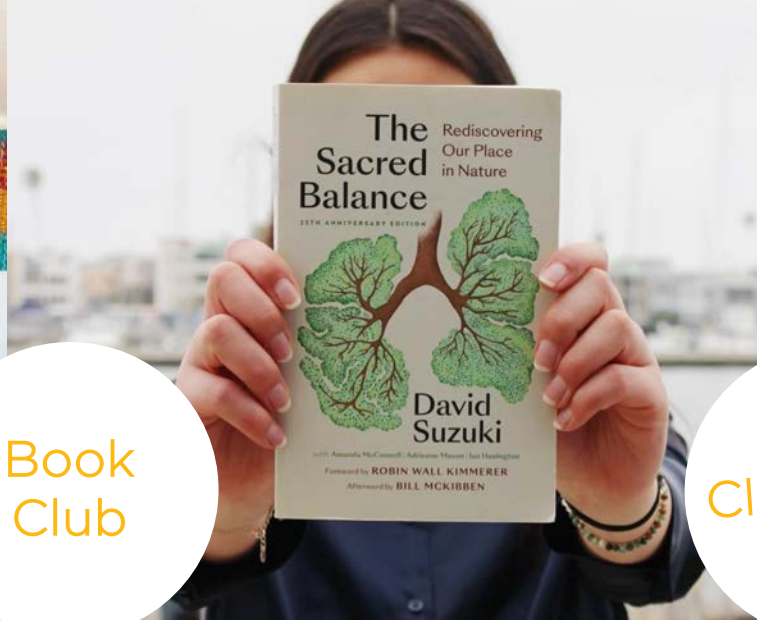
## SPRING/SUMMER 2026

- Continue Water Quality Testing with Kayak Explorers & Citizen Scientists
- Organize a spring community science day or celebration event
- Publish annual summary report and share findings with local policymakers, media, and the public





Refill  
Store



Book  
Club



Clean-ups

## OTHER COMMUNITY PROGRAMS



Film  
Screenings



City-Wide  
Contests



Fix-It  
Clinics





THANK  
YOU!

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