



# 2024 ANNUAL REPORT

To restore and enhance Santa Monica Bay through actions and partnerships that improve water quality, conserve and rehabilitate natural resources, and protect the Bay's benefits and values.

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# CONTENTS

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A MESSAGE FROM THE CEO .....	3	ENVIRONMENTAL ENGAGEMENT .....	12
2024 AT A GLANCE .....	4	ADVOCATING FOR CLEAN BOATING .....	13
OCEAN RESILIENCE .....	5	ADVOCATING FOR COMMUNITY .....	14
RESTORING KELP FORESTS .....	6	COMPOSTING & GARDENING .....	
RECOVERING ABALONE POPULATIONS .....	7	REDUCING SINGLE-USE DISPOSABLES .....	15
RESEARCHING & RESTORING .....	8		
EELGRASS .....		COASTAL RESEARCH INSTITUTE .....	16
COASTAL ADAPTATION .....	9	ADVANCING RESEARCH VIA CRI .....	17
GROWING DUNES .....	10	WHO WE ARE .....	18

*a year in review*

# A MESSAGE FROM CEO TOM FORD

Dear Friends,

The Bay Foundation works to implement nature-based solutions that enhance coastal resilience, climate adaptation, stewardship, and restore ecosystems. 2024 was momentous across our ocean resilience, coastal adaptation, and environmental engagement initiatives.

Read on to explore our impact. May this spark the same passion in you as it does in us—to protect and restore our beloved Bay, beaches, and watershed for generations to come.

Thank you for your interest and support!

Cheers,

Tom Ford  
Chief Executive Officer  
The Bay Foundation



# 2024 AT A GLANCE



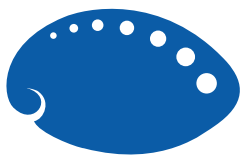
**11**

celebrated 11 years of kelp forest restoration and 77.34 acres restored



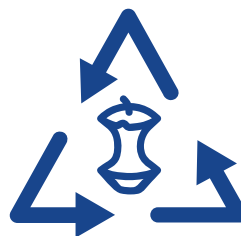
**5**

improved coastal resilience by growing dunes at 5 different restoration sites from Zuma Beach to Manhattan Beach



**6**

celebrated 6 years of white abalone outplanting, having successfully outplanted 8,537 white abalone



**1,000**

recycled over 1,000 pounds of food scraps locally with Environmental Charter Schools at co-established community compost hubs



**120**

supported City of Los Angeles' Reusable Foodware Microgrant Program by transitioning 120 restaurants from single-use disposable foodware to reusables, preventing trash in our communities and ocean



**3,000 +**

engaged thousands of boaters in pollution prevention and environmental stewardship



# OCEAN RESILIENCE

*TBF's Ocean Resilience Program reverses ecological loss by restoring kelp forests, eelgrass meadows, and recovering threatened and endangered species of abalone.*



# RESTORING KELP FORESTS



What is the significance of restoring kelp? The kelp forests of Southern California support an incredibly diverse and biologically productive ecosystem that is home to more than 700 species of algae, invertebrates, fish, and marine mammals. Giant kelp is one of the fastest-growing organisms on the planet, and as it grows, it pulls carbon dioxide from the seawater as part of the first stage of a carbon sequestration pathway. The ability of giant kelp forests to address ocean acidification and reduce erosional forces makes giant kelp forests incredibly valuable in coastal resilience. Plus, a thick kelp canopy cuts down on the wind chop, keeping the waves nice and glassy for improved surfing.

In 2024, The Bay Foundation (TBF), in collaboration with academic researchers and commercial sea urchin harvesters, achieved a major milestone in the restoration of rocky reefs, transitioning them from urchin barren states to flourishing kelp forests on the Palos Verdes Peninsula.

In 2024, 10.54 acres of urchin barren were cleared with 1,387 hours underwater. To date, a total of 77.34 acres of reef have been restored along Palos Verdes since the project began in July 2013.

TBF's Volunteer Dive Program continues to thrive, with 425.25 dive hours recorded in 2024. The program has also onboarded 52 American Academy of Underwater Sciences (AAUS) volunteer divers to date. If you are an AAUS diver and would like to join our efforts, please check out our [website](#) for more information, and we'll be in touch.

Through this restoration effort, TBF's Ocean Resilience Program, along with our partners, continues to document the growth of the kelp forest following our restoration. This is measured by SCUBA divers counting and sizing algae, fish, and invertebrates. These measurements describe increased diversity, abundance, and biomass of macroalgae (seaweeds) and fish across our restoration sites compared to pre-restoration values. Learn more details in [this report](#).

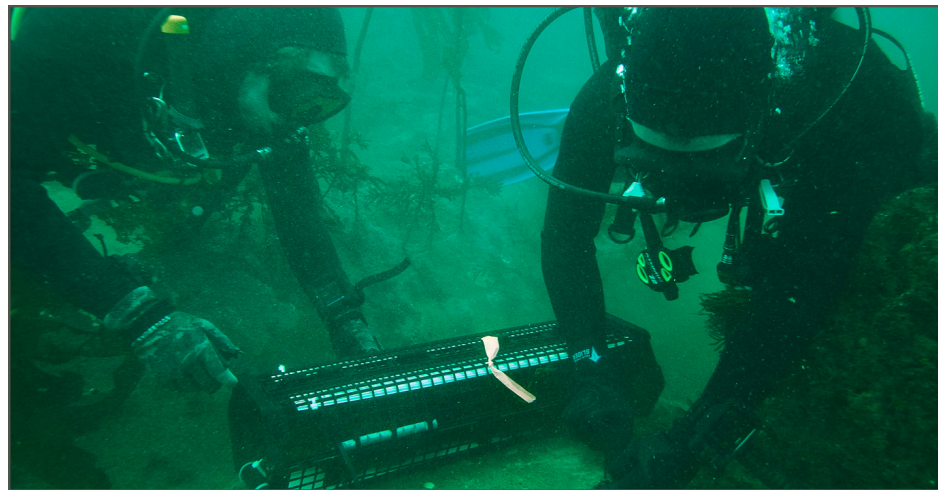


# RECOVERING ABALONE



TBF continues to lead local actions and coordination as part of a statewide effort to restore the federally endangered white abalone (*H. sorenseni*). White abalone live in rocky reef habitats along the Southern California coastline and northern Baja Mexico. This species is currently designated as a NOAA “Species in the Spotlight”, one of ten species identified as being at the greatest risk of extinction. To support its recovery, TBF manages the operations and maintenance of two mariculture facilities at the Southern California Marine Institute (SCMI). These facilities are dedicated to growing, feeding, assessing, and acclimating captive-bred white and red abalone before releasing them into the ocean.

In 2024, 8,600 white abalone were transferred to TBF’s aquaculture facilities, and to date a total of 19,743 white abalone have been transferred to our aquaculture facilities. In addition to managing these facilities, TBF’s scientific divers collaborate with white abalone organizations to release captive-bred abalone once they reach outplant size – defined as 25 mm or greater, or approximately one inch – suitable for introduction into their natural habitat in the ocean. These abalone are released into the ocean using Protective Outplanting Devices, which help protect them as they acclimate to their new environment.



In 2024, 1,320 endangered white abalone were outplanted off Palos Verdes. Since 2019, a total of 8,537 white abalone have been outplanted to the Palos Verdes Peninsula. TBF continues to monitor these individuals after their release to assess their viability and improve the success of the project.

Expanding beyond white abalone, in the summer of 2024, 5,000 juvenile red abalone were successfully outplanted to two reef sites off the Gaviota Coast.

As of winter 2024, TBF is proud to announce its partnership with the Pacific Coast Ocean Restoration Initiative (PCOR) to support advancing white abalone restoration efforts in Southern California. This collaboration will significantly enhance these efforts by expanding captive breeding infrastructure to produce more juvenile white abalone for outplanting. The goal is to outplant 17,500 white abalone across five new rocky reef and giant kelp forest sites in Southern California by fall 2027.

# RESEARCHING & RESTORING EELGRASS

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Eelgrass (*Zostera*) is a marine flowering plant, found globally, along temperate coastlines. Eelgrass can form large beds or meadows that provide habitat for juvenile fishes, filter nutrients, sequester carbon, and retain sediment. Despite the importance of eelgrasses, these habitats are experiencing staggering rates of loss through the cumulative impact of global threats and local stressors. Eelgrass beds are typically found near the coastline and, as such, are more vulnerable to disturbance from coastal development, warmer temperatures, and large storms. To reverse this loss, TBF and Paua Marine Research Group (PMRG) are filling research gaps on open coast eelgrass habitats and developing restoration techniques.

In 2024, TBF's Ocean Resilience Program, PMRG, and Scripps Institution of Oceanography conducted quarterly SCUBA-based surveys to monitor eelgrass within the Bay. These surveys are conducted by teams of SCUBA divers who measure the extent and expanse of the eelgrass, as well as the fish observed near and within it. Additionally, instruments were deployed on the ocean floor within the eelgrass beds to measure temperature, dissolved oxygen, and light – key factors for eelgrass health and persistence. The data collected through this monitoring effort will be used to establish a comprehensive monitoring program and set targets for future conservation efforts. This partnership is being funded by Prop 50 funds through the Santa Monica Bay Restoration Commission.



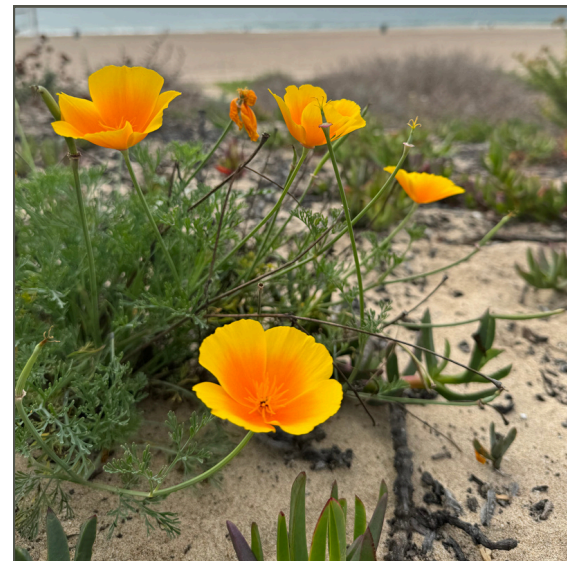
# COASTAL ADAPTATION

*TBF's Coastal Adaptation Program expands California native plant communities to enhance coastal resilience and revitalize coastal biodiversity on Southern California sandy beaches.*





# GROWING DUNES



TBF protects Los Angeles' beaches from coastal erosion and flooding, while creating habitat for wildlife by growing sand dunes. Working with many cities, lifeguards, LA County, and California State Parks, TBF grows native plants on the beach by distributing thousands of seeds and planting potted plants into the beach sand. The branches and roots of these native plants naturally collect and hold sand, building small dunes that can reach about 1 meter (approximately 3 feet in height) within a few years. Once established, the habitat created by these plants supports butterflies, migrating birds, and other wildlife. This emergence of life enhances the beach-going experience while also mitigating floods and erosion associated with rising sea levels. The U.S. Geological Survey warns that California could lose up to 75% of its beaches in the next 75 years due to rising sea levels, with Southern California facing significant losses by 2100. By growing plants and dunes on our beaches, we can reduce these impacts!

In 2024, TBF's Coastal Adaptation Program, in collaboration with the City of Santa Monica, California State Parks, Refugio Oil Spill Trustees, and the Coastal Commission, established 5 more acres (about 100 pickleball courts!) of beach dunes north of the Santa Monica Pier. We also continued to maintain our Manhattan Beach, Dockweiler, and Malibu dune sites.

In all, 2024 efforts led to:

- 25 native coastal dune plant species established
- 650+ native plants planted
- 40+ community restoration events hosted
- 950+ volunteers engaged and supported efforts
- Sightings of threatened species such as the Western Snowy Plover (threatened) and El Segundo Blue Butterfly (endangered) at several beach dune restoration sites



# GROWING DUNES

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*“Planting seeds at the Santa Monica site was awesome! It’s a beach I’ve enjoyed for years, and now I get to be part of its transformation. It’s exciting to demonstrate that what many see as just barren sand, a pier, and tourists, can actually support a biodiverse coastal dune ecosystem. I loved chatting with curious beachgoers about the plot, and I could see many of them sharing my excitement. Watching those tiny seeds take root and grow has been a reminder of nature’s resilience and of the impact of our collective efforts.”*

– Ryan, TBF volunteer



Over the years, hundreds of volunteers have contributed to this effort, helping to grow and maintain these living coastal spaces. This is at the core of our success. TBF also prioritizes education to connect the public with these vital dune communities. Please join us at an [upcoming volunteer event](#) to get involved and make a difference!



# ENVIRONMENTAL ENGAGEMENT

*TBF's Environmental Engagement Program fosters the transformation of perceptions, attitudes, and behaviors into concrete, pro-environmental action using an integrative approach that combines social science, education, leadership building, and creative, empowered communications.*





# ADVOCATING FOR CLEAN BOATING



With 4 million boaters, California has one of the highest levels of recreational boating in the United States. However, without proper management, this activity can harm the state's waterways. Boat-based pollutants such as sewage, used oil, household hazardous waste, marine debris, aquatic invasive species, and emerging contaminants add up when they are not managed correctly. TBF is committed to reducing boat-based pollution and promoting stewardship.

*"I learned a lot from the individual who gave me the California Boater Kit, as I had no idea about oil absorbent pillows or preventing oil from getting into the ocean. These topics, like environmental laws in boating, are things I like to be educated on - being a responsible boater is very important!"*

-SoCal boater

In 2024, TBF's Environmental Engagement Program made strides toward this goal, including the following efforts:

- Distributing over 2,800 pollution prevention toolkits, known as the California Boater Kit
- Training over 100 individuals as environmental educators (Dockwalkers) in partnership with California State Parks and California Coastal Commission's Boating Clean and Green Program
- Producing informational video testimonials on marine composting toilets
- Sharing insights on behavior influencing community-based social marketing campaigns with statewide and national collaborators
- Monitoring over 70 sewage disposal facilities in Southern California to ensure they are operating optimally

[Learn more](#) about its efforts and resources for recreational boaters.

# ADVOCATING FOR COMMUNITY COMPOSTING + GARDENING



Table to Farm, initiated in 2016, is a partnership between TBF, Environmental Charter Schools (ECS), and its extended community that collaborates to recycle organic food waste and grow local fresh food. By composting locally, we build healthy soil, increase water retention, and enhance soil carbon sequestration. At the same time, we reduce the transportation associated with hauling waste to distant processing facilities, which lowers smog-forming air pollutants and carbon dioxide emissions.

Together with ECS in 2024, we:

- Recycled over 1,069 pounds of food across these community compost systems
- Planted 15 fruit trees within Environmental Charter Middle School-Gardena's parkway community garden
- Attended 2 events to connect with community members on the initiative and distributed hundreds of food scrap collection caddies
- Co-produced 2 community workshops focusing on composting, at-home gardening, and environmental entrepreneurship.



# REDUCING SINGLE-USE DISPOSABLES



Globally, over 300 million tons of plastic are produced annually, and less than 9% is recycled. By 2050, plastic is expected to outweigh all fish in the oceans. Much of this marine debris is a result of disposable plastic products, specifically single-use disposable food and beverage packaging that have a short life span and are quick to be thrown “away”. Plastic pollution implications are vast and harmful, spanning from its extraction to its disposal. Source control is the most effective measure that reduces plastic use and ultimately prevents ocean-bound plastic.

In 2023, the City of Los Angeles’s LA Sanitation & Environment launched its Reusable Foodware Microgrant Program, and TBF’s Environmental Engagement Program is proud to have supported its implementation and provided technical assistance alongside Clean Water Action and Clean Water Fund’s ReThink Disposable and APTIM. This project concluded in summer 2024, with 120 restaurants participating in reducing single-use disposables at the source and championing reuse for dine-in. [Check out this video](#) to learn more about the initiative and its impact.

Additionally, in 2024, TBF continued to participate in the Reusable LA coalition, a strong network of partners working to resolve LA’s plastic pollution issue by championing a reusable culture through legislative advocacy, outreach, and engagement. Reusable LA’s 2024 efforts centered around continuing to promote “[Hold the Plastic, Please](#)” tip cards to inform foodservice businesses and consumers on active legislation, as well as supporting the [City of LA’s Comprehensive Plastic Pollution Reduction Program’s](#) Programmatic Environmental Impact Report.



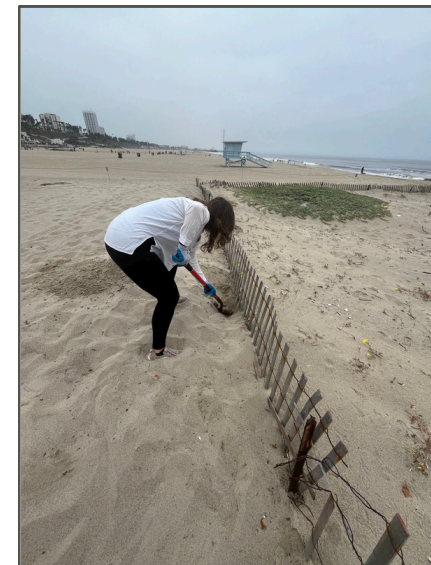
# COASTAL RESEARCH INSTITUTE

*TBF and Loyola Marymount University's Coastal Research Institute engages LMU faculty, undergraduate, and graduate students in multidisciplinary, hands-on approaches to research related to coastal resource management affecting Santa Monica Bay and its watersheds.*





# ADVANCING RESEARCH VIA CRI



Loyola Marymount University's (LMU's) and TBF's Coastal Research Institute (CRI) continued to bring together faculty advisors from TBF and LMU with LMU students to study topics such as coastal phytoplankton population characterization, seabird nesting, intertidal invertebrate physiology, coastal dune invertebrate communities, and geospatial analysis of existing coastal dune restoration projects.

CRI's work is used to develop methodologies that can be applied to understand the condition and extent of select habitats in Santa Monica Bay and its coastal watershed. Some of the methods may also be incorporated into restoration efforts to assess their relative success and adaptively manage the progress made by the restoration teams.

At the end of the 2024 six-week summer program, students reported on their work in a university-wide poster session. Several students continued working on their CRI projects for their senior capstone research, which is part of their graduation requirements at LMU.

# WHO WE ARE



## Board of Directors

*TBF's Board of Directors oversees progress focusing on the organization's fiscal health, capacity, and operational stature.*



## Staff

*TBF's staff are science and communication experts that are passionate about understanding and protecting the Bay and its watershed.*

## STAY CONNECTED







# THANK YOU

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