

2024 Impact Report

Conserving Sanctuary Ecosystems

Building Ocean Resilience



Stretching from Mendocino County to Santa Cruz County and offshore towards the continental shelf, Greater Farallones, Cordell Bank, and Monterey Bay national marine sanctuaries protect some of the most iconic blue spaces along California's coast. Within these marine protected areas lies one of only four major ocean upwelling zones. This phenomenon brings deep-sea nutrients to the surface, fostering an incredibly rich and diverse ecosystem.

GREATER FARALLONES ASSOCIATION Protecting life through conservation

Our mission is to conserve the wildlife and habitats within Greater Farallones and Cordell Bank National Marine Sanctuaries and the northern portion of Monterey Bay National Marine Sanctuary, federally protected areas encompassing more than 5,000 square miles of coastal and open ocean waters off the California coast.

These national marine sanctuaries, managed by the National Oceanic and Atmospheric Administration (NOAA), protect one of the most productive marine ecosystems in the world and serve as a refuge for a stunning diversity of life, including white sharks, endangered whales, and deep-sea corals.

In our nearly 30 years of sanctuary stewardship, we have grown from a tiny group of dedicated conservationists to a robust and dynamic team of scientists, policy experts, storytellers, and educators who are at the vanguard of marine conservation. Through high-impact programs rooted in science, we engage over 14,000 adults and youth a year in the conservation of this ecosystem, collect critical data on wildlife, restore vital habitats, and help local communities adapt to the impacts of climate change through nature-based solutions.

This work is only possible by leveraging our public-private partnership with NOAA, which allows us to do far more together than we could ever do alone. Our national marine sanctuaries belong to all of us, and it will take all of us coming together to ensure they remain healthy and resilient for future generations.



EXECUTIVE DIRECTOR'S MESSAGE Shaping our future

At the Greater Farallones Association, our conservation efforts within the Greater Farallones and Cordell Bank National Marine Sanctuaries do more than safeguard a majestic stretch of California's coast; they make a profound impact on global ocean conservation. The sanctuaries' importance extends far beyond their boundaries; they are critical engines of biological productivity that fuel life across the entire Pacific Ocean. By preserving these critical habitats here, we influence the health and stability of interconnected marine ecosystems worldwide.

This year marked significant strides toward some of our most pressing goals, to:

- Restore essential kelp forest habitat, providing shelter and sustenance to myriad marine species and setting a global standard for kelp ecosystem rehabilitation.
- Grow our community science programs in both scope and participation to generate essential data that steer cost-effective conservation strategies.
- Leverage our expertise in climate science and collaborative ocean management, equipping ocean managers around the world with the tools and knowledge needed to navigate the challenges posed by climate change.
- Help advance diversity, equity, and inclusivity in coastal and marine science spaces, committed to ensuring equity, accessibility, inclusion, and social justice within our organization, our relationships with our broader community, and our public-serving programs.

These endeavors enhance the sanctuaries' resilience and thus enhance the resilience of our ocean worldwide. The Association ensures the sanctuaries continue to serve as a refuge for marine life, including endangered species like whales and white sharks, as well as countless other creatures. We remain committed to the highest levels of efficiency and impact, reinforcing the sanctuaries' ability to thrive amidst waves of change.

Looking ahead, we are poised to meet future challenges with strategic foresight and innovative solutions. We will continue to strengthen our partnerships, harness advanced technologies in research, and deepen our community ties to build a robust network of resilience. Together, we are shaping a future where our oceans – from the iconic shores of Greater Farallones National Marine Sanctuary to the magnificent underwater seascape of Cordell Bank National Marine Sanctuary, and far beyond – remain healthy and productive for the benefit of people and nature.



Monika Lynn Krach Executive Director





"Over the past year, we pioneered groundbreaking kelp restoration techniques, advanced vital scientific research on carbon sequestration, and inspired new audiences to connect with their ocean backyard. **We are poised to turn this momentum into transformative impact for our oceans and communities."**

– Jeff Loomans, Board Chair









*These volunteers
are forces for
change and
models of ocean
stewardship.

They're extraordinary people, doing extraordinary things." - Dr. Sylvia Earle, Beach Watch







Divers removed **24,000 lbs**

of purple sea urchins from our restoration sites in our first field season.

COASTAL RESILIENCE Strengthening vulnerable ecosystems

Climate-related changes, like sea level rise and coastal erosion, threaten wildlife and human habitat. We lead multiple habitat-focused restoration efforts to bolster the resiliency of these delicate ecosystems.

Bolinas Lagoon, located within Greater Farallones National Marine Sanctuary, holds immense ecological significance as its intricate network of channels, marshes, and mudflats are a habitat for juvenile fish and invertebrates and serve as an important stop along the Pacific Flyway. We are working to restore the lagoon's southern shoreline to increase wildlife habitat and help mitigate flood risk from sea level rise. This year, we commissioned a feasibility study for the project, an important milestone toward active restoration. Partnering with the U.S. Geological Survey, we're gathering high-quality drone imagery of seasonal variations at sanctuary beaches to better understand how they evolve over time, which will help us model potential long-term changes. To accelerate restoration projects across the region, we're giving practitioners information on navigating complex regulatory processes. Our efforts have also included the technical development of the Efficient Permitting Roadmap: A Guide to the Regulatory Process for Sediment Management on the North-Central California Coast, a permitting how-to guide for coastal sediment management projects.

KELP FOREST RESTORATION Replanting hope

Bull kelp forests have significantly declined over the past decade due to climate change. They provide an integral habitat and sustenance for marine life and play an important role in the sequestering of carbon along the Northern California coastline. We are leading the charge in restoring this critical habitat within Greater Farallones National Marine Sanctuary.

This past year, we embarked upon the most ambitious kelp restoration project ever undertaken on the U.S. West Coast. Establishing a first-of-its-kind "kelp nursery" at the UC Davis Bodega Marine Lab, we're growing the next generation of bull kelp to "outplant" the young algae within the sanctuary. This relatively new method of restoration has required us to conduct extensive research into the most effective means of ensuring the juvenile kelps reach maturity once settled in the ocean. We are proud to have collaborated with local commercial sea urchin divers, who began removing native purple sea urchins, a prevalent kelp-eating species in California that has flourished over the past decade due to the absence of its natural predators. This effort is crucial to aiding new kelp growth within the sanctuary. This year, divers removed 24,000 lbs of urchins from our kelp restoration sites.



We prioritize

nature-based solutions to protect and safeguard sanctuary coastlines from future change.



SEABIRD PROTECTION Protecting native species

Greater Farallones National Marine Sanctuary is home to hundreds of thousands of seabirds that breed and roost on offshore rocks, cliffs, and islands. Through our outreach efforts, we educate boaters and pilots on how to prevent seabird disturbances. This year, we disseminated 2,500 brochures and materials to coastal communities.

28 US COAST GUARD PILOTS
55 small plane pilots
114 boaters
educated through outreach efforts.









It is estimated that

threatened or endangered blue, fin, and humpback whales are fatally struck by shipping vessels in California each year.¹

WHALE CONSERVATION **Partnering for protection**

Whales are most at danger when they aggregate to feed near shipping lanes within the sanctuaries and surrounding waters. That's why Greater Farallones Association works alongside government agencies and diverse partners to reduce threats and advance multi-national science and conservation measures to protect migrating whales across the Pacific Ocean.

Supporting the "Protecting Blue Whales and Blue Skies" initiative, we work to reduce the threat of ship strikes to whales through a voluntary vessel speed reduction program. This year, 33 shipping companies participated in the program with an 81% cooperation rate, up from 78% in 2022.

Because changing ocean conditions also pose a threat to whales, we work diligently

to foster international cooperation and develop robust Marine Protected Area (MPA) networks that provide safe havens and an effective corridor of protection for vulnerable whales. Working alongside the sanctuaries, we convened MPA managers, Indigenous conservation leaders, and North and Central American policymakers for a three-day workshop to strengthen partnerships and advance conservation measures.

¹Source: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0183052



Blue carbon refers to the carbon that is captured and stored by the world's oceans through coastal plants and algae and marine food webs.

Much of the carbon captured by these ecosystems is stored for hundreds to thousands of years.

BEACH WATCH Safeguarding our shores

Through dense fog or howling winds, 150 dedicated community volunteers walk their local beaches along the coastline of Greater Farallones National Marine Sanctuary. In doing so, they play a crucial role in stewarding this special stretch of the Pacific Ocean. Keeping a finger on the pulse of the sanctuary, they continue to ask the important questions: Have tarballs washed up with the tide? Are brown pelicans more abundant this year than usual? How many surfers are using each beach?

Beach Watch, the trailblazing and awardwinning program these volunteers work with was established in 1993 and has been operated by the Association since 1995. Nationally recognized for its long-term data collection, it is the first line of defense for wildlife conservation and coastal pollution events in the region. Through Beach Watch, the Association leverages a network of 150 trained volunteers who monitor the presence of bird, marine mammal, oil, and human activities along 210 miles of California coastline. This data has been used in natural resource damage assessments by sanctuary managers and other agencies.

Beach Watch has had a positive impact on our community for more than three decades by engaging residents in coastal science and stewardship, empowering them with knowledge, and involving them in protecting the wildlife they love.

CLIMATE SCIENCE Driving climate action through knowledge

Warming ocean waters have contributed to the loss of kelp forests, and intensifying storms are impacting coastal habitats. We are conducting first-of-its-kind climate research to inform NOAA's Office of National Marine Sanctuaries Climate Program and other MPAs.

Our assessment of the vulnerability of Greater Farallones and Cordell Bank ecosystems to climate impacts helped to inform sanctuary adaptation strategies and led to the development of the first Climate Adaptation Plan for a national marine sanctuary in 2016. This year, our staff completed an update to the assessment, which will be instrumental in managing sanctuary resources over the next decade.

We are now working to understand and increase protections for blue carbon in marine protected areas. This year, we published our third report in the "Blue Carbon in Marine Protected Areas" series, which provided the first evaluation of marine sedimentary carbon stocks in North-Central California. It detailed the surface of the seabed within Greater Farallones and Cordell Bank National Marine Sanctuaries and the northern portion of Monterey Bay National Marine Sanctuary, revealing that it holds nine million metric tons of carbon that can safely remain there if left undisturbed – an amount equivalent to driving seven million cars for a year. We're proud to announce that we have taken these findings to the global stage, presenting them at the 28th United Nations Climate Change Conference.



This year, Beach Watch celebrated its 30th year of coastal monitoring! During that time, volunteers have:

completed 25,000 surveys provided 148,417

volunteer hours secured

SSZM oil spill restoration funds

LiMPETS Inspiring youth

LiMPETS (Long-term Monitoring Program and Experiential Training for Students) educates, inspires, and empowers youth through immersive coastal learning experiences that increase environmental literacy and ocean stewardship. Through unique classroom lessons and field trips, students get outdoors to observe and collect data on 27 species of marine life at rocky and sandy beach sites along the sanctuary coastline.

LiMPETS data are used to detect emerging impacts on marine species, inform the establishment of new protected areas in the region, and helps sanctuary managers identify long-term status and trends in intertidal regions.

During the 2023-24 school year, 2,245 students received LiMPETS programming, approximately 50% from schools serving historically marginalized communities. We hosted a paid fellow through the Marine Science Education Fellowship Program, which focuses on providing paid professional work experience for candidates from backgrounds that have been historically excluded from ocean science careers.







"These programsoffer an incredible opportunity for students to participate in research that's universally respected as something real and important. The scientists and educators are fantastic ambassadors for the oceans."

– Jon L., High School Teacher



EDUCATION Securing tomorrow

Through a myriad of dynamic ocean youth education and public programs, we bring the wonder of the ocean and sanctuaries to San Francisco Bay Area and North Coast adults and K-16 students of all backgrounds. These unique experiences and encounters on the coast are part of how we inspire and empower people to visit and join us in preserving national marine sanctuaries for generations to come.

YOUTH EDUCATION

LiMPETS, one of our longest-running programs, engages K-16 students in community science, expert-led learning experiences on the iconic rocky shores and sandy beaches of Greater Farallones National Marine Sanctuary. This programming introduces students to marine science pathways. During the 2023-24 school year, LiMPETS served 2,245 students – from the Bay Area to southern Mendocino. Read more on page 12.

Our Oceans at Your School and Oceans After School programs bring lively gradespecific ocean lessons to classrooms and afterschool programs across the Bay Area, increasing accessibility to ocean literacy. Using interactive games, exciting demonstrations, and encounters with wildlife specimens, students learn about biodiversity, adaptations, and ecosystems. During the 2023-24 school year, we reached 2,268 students from 22 schools through Oceans at Your School and 630 students from 21 schools through Oceans After School. Through immersive **Sanctuary Visitor Center Field Trips** on the San Francisco Bay, we guide K-12 students through interactive encounters with habitat exhibits, live aquarium animals featuring iconic sanctuary fishes and invertebrates, the dynamic sandy environment on Crissy Beach, and wildlife sightings from the Sanctuary Classroom atop the historic Greater Farallones Pier. In 2023-24, 1,022 students from 31 schools made the trek to the mouth of the Golden Gate to learn about their ocean backyard.

Each summer, in partnership with Randall Museum and San Francisco Parks and Recreation, we host **Marine Explorers Summer Camp** for 9-11-year-olds that are curious about the ocean. Campers embark on naturalist-led field excursions, explore the diversity of sanctuary ecosystems, and learn real techniques scientists use to study marine organisms. This year, we served 70 campers through this camp.

PUBLIC PROGRAMS

Celebrating sea urchins

We hosted the Sea Urchin Art & Science Soirée at the San Francisco Zoo in partnership with Greater Farallones and Cordell Bank National Marine Sanctuaries. 165 guests joined us for printmaking art activities; science stations; a lecture by Rich Mooi, Curator of Invertebrate Zoology and Geology at the California Academy of Sciences, learning the fascinating stories and important role these ancient invertebrates play.

Including everyone

In partnership with the sanctuaries, we were proud to host and organize marine science education programs with SamaSama, serving the Filipino community in the Bay Area, and Queer Surf, whose mission is to make the ocean and coast more accessible and safe for the Lesbian, Gay, Bi, Transgender, Queer, Intersex, Asexual community (LGBTQIA+). We teamed up with Queer Surf again in the field to help guide a tidepooling excursion at Duxbury Reef.

Cruising with partners

Alongside the sanctuaries, we were thrilled to host 25 of our long-time naturalist and educator partners specializing in serving underrepresented and under-resourced communities on a trip to sea. Our all-day outing with the Oceanic Society in sanctuary waters involved involved learning about sanctuary wildlife and research.

Sharing knowledge

We love nothing more than educating the public – whether on sanctuary shores or in local stores. This year, we enjoyed a day at Patagonia's San Francisco location, engaged in thoughtful conversations about the ocean and how we protect it with Patagonia shoppers and team members. We appreciate Patagonia's generous grant support for our organization.









FARALLONES

 K12 Education

 Boto De Creater Farallones Association

Through generous donations and grant support, we are able to deliver approximately **50% of our education programming free of charge** to Title 1 and other schools serving historically marginalized communities.







JEDI Serving diverse communities

Greater Farallones Association aims to foster justice, equity, diversity, and inclusion (JEDI) within our organization, our partnerships, and in the broader field of ocean conservation. We acknowledge the significant barriers that Black, Indigenous, and People of Color (BIPOC) individuals face in pursuing careers in marine science and making their voices heard in environmental policy. Our staff members work together to help identify and address JEDI challenges within the organization and in our relationships with those we serve.

We aim to serve diverse communities and youth, provide enriching ocean science programs and coastal experiences to schools serving historically excluded communities, and work to reduce socioeconomic barriers to accessing the coast and national marine sanctuaries.

ACTIONS WE ARE TAKING

Our commitment to viewing all of our work through a JEDI lens began in 2020 with office-wide conversations on racial justice spurred by the murder of George Floyd, the Black Lives Matter Movement, COVID-19fueled racism, and violence against individuals of Asian descent. A staff-led JEDI Committee was formed, and over the following four years we have initiated

various steps to increase JEDI internally through staff bias trainings addressing bias; the formation of BIPOC and Queer affinity spaces; adjustments to our recruitment, hiring, and interview processes, and the development of a comprehensive JEDI Strategic Plan (JEDI Plan) that was completed in 2024 with extensive feedback from all staff.

Through the JEDI Plan, we aim to ensure that our internal and external goals and growth priorities reflect the staff we support and the communities we serve. We have begun and will continue working toward the following goal areas over the next three years:

Develop the infrastructure, tools, and initiatives needed

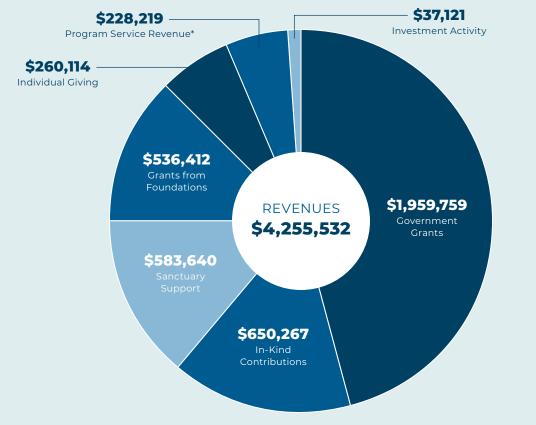
3

- to build a strong foundation for continuously advancing JEDI.
- Develop and deliver support systems, guidelines, and training 2 to better support staff, and particularly BIPOC staff.
 - Commit to ensuring equity, accessibility, inclusion, and social justice in our relationships with our broader community and in our public-serving programs.
- Create transparency, communication, and work guidelines 4 to ensure an inclusive joint workplace and strengthen collaborations with our federal counterparts.

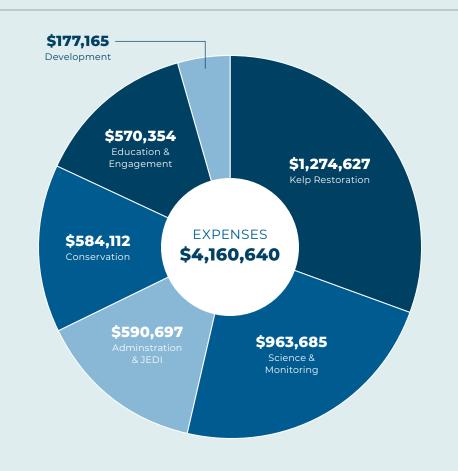
As GFA embarks on this work, we acknowledge challenges to JEDI efforts in our field and, broadly, in this country. The actions of federal, state, and local governments have supported systemic inequities excluding communities of color, Indigenous communities, and queer and disabled communities from fair education, employment, and housing; opportunities to build home equity and financial security; and safe access to outdoor public spaces, including those along our coast.

We are grateful to our JEDI consultants – Justice Outside and Unconscious Bias Project – for their guidance in this important effort, and to The David and Lucile Packard Foundation for grant funding in support of this work.

FINANCIALS Fiscal year ended on March 31, 2024



*Includes sales and contracts



JAMES CROWLEY OCEAN CONSERVATION FUND



Photo courtesy of the Crowley family

We are deeply grateful to the Crowley Family for their generosity and dedication to carrying on James (Jim) Crowley's ocean legacy by starting the James Crowley Ocean Conservation Fund at Greater Farallones Association.

Among many impressive endeavors, Jim was a dedicated supporter of national marine sanctuaries, a conscientious advocate for transformative ocean protection, and a dear

friend to many across the wide ocean community. This Fund honors his commitment to ocean conservation through support for projects and initiatives that focus on restoring and safeguarding vital marine ecosystems within Greater Farallones and Cordell Bank National Marine Sanctuaries.

A sincere thank you to those who have contributed to the James Crowley Ocean Conservation Fund since its creation.

Martha Crowley Farrell Crowley Marjorie and Harry O'Hanley Maura DeVisscher Christine Connelly Alan Magdovitz Clare Harrington Kelly Benshoof Susan Kawala Maria Brown and Michael Falzone Hillary Hogan Thomas Cellitti Brian Hehir The Winston Family Eileen and Ray Monahan Robert Trainor Dalio Philanthropies Benson Chiles Tom Roche Jody Van Houten Katherine Fowler Ann and Gordon Getty Family Foundation Hank and Joanne Asbill Jeanette Clonan Peterffy Foundation

ROBERT WILSON SEA LION LEGACY SOCIETY



Remember Robert Wilson, 1944-2023

With heavy hearts, we remember and celebrate Robert (Bob) Wilson, a lifelong ocean champion whose impact will forever remain connected to the Farallon Islands and surrounding waters that Bob so passionately helped protect.

Photo courtesy of the Wilson family

To those who have honored Bob's memory and carry on his legacy through becoming members of the Robert Wilson Sea Lion Legacy Society – which Bob enthusiastically founded during his time as our Executive Director in 2018 – we extend our heartfelt gratitude.

Robert Wilson Jeff Loomans Tom Kowalski Ellen Gartside

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\$50,000+

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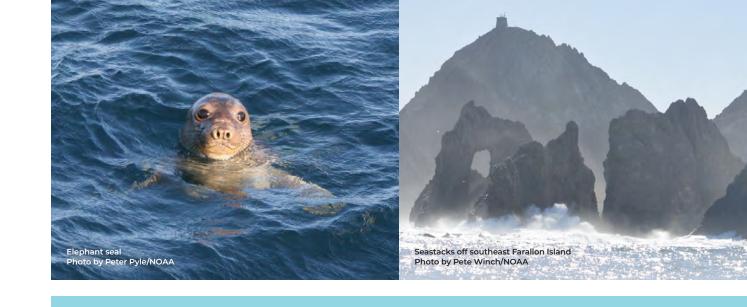
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"Protecting an ecosystem as expansive as Greater Farallones and Cordell Bank National Marine Sanctuaries is no small feat.

It requires all of us coming together to do our part to ensure this special place remains healthy and resilient so that future generations may enjoy it. That's why I take immense pride in the close partnership we have forged with the Greater Farallones Association."

 Maria Brown, Superintendent of Greater Farallones and Cordell Bank National Marine Sanctuaries

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Maria Brown Greater Farallones and Cordell Bank National Marine Sanctuaries





VISITOR CENTER 991 Marine Drive, San Francisco, CA 94129 info@farallones.org



Greater Farallones Association is a 501c3 non-profit organization founded in 1995 to help ensure the ecosystem within Greater Farallones National Marine Sanctuary remains an biologically diverse and globally significant ocean environment. We work to sustain a healthy and resilient ocean through conservation, science, education, and community involvement.

Front cover photo by Chad King. Back cover photo by Nicole Capps/NOAA