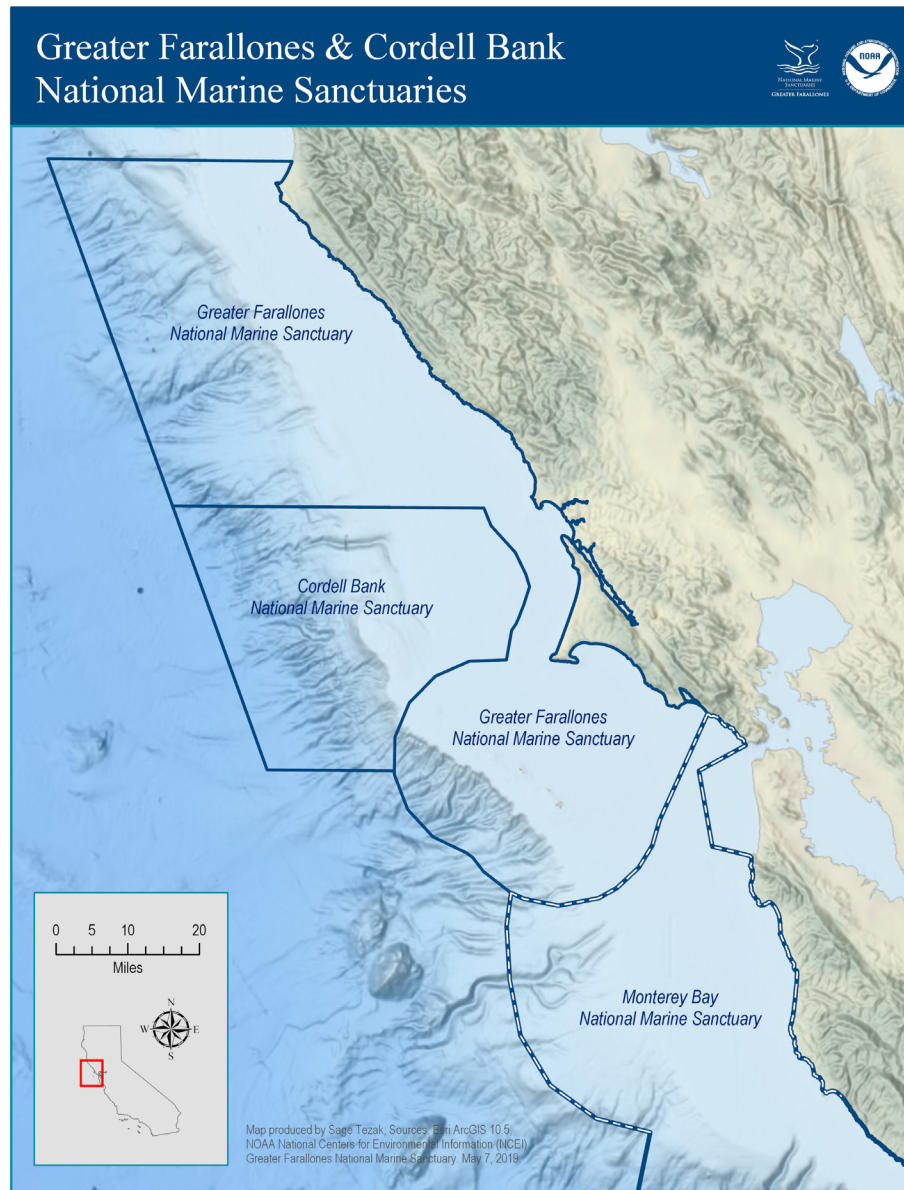




GREATER
FARALLONES
ASSOCIATION

IMPACT REPORT 2018

“It is where everything meets up—the water, the air, and the land—as well as the people, the animals, and the plants. We all join together through science, sports, and the arts. It is an amazing intersection!”
– Janai Southworth, Volunteer



The [Greater Farallones Association](#) (the Association) helps protect wildlife and habitats of the [Greater Farallones National Marine Sanctuary](#) (the Sanctuary), a 3,295-square mile area of federally-protected ocean and coastal waters, bays, and estuaries along the northern and central California coasts, and 1,400 square miles in the northern region of the Monterey Bay National Marine Sanctuary from Rocky Point in Marin County to Santa Cruz County.

“ I support the Greater Farallones Association because their program work is real, concrete solutions to preserve the Sanctuary for generations to come. From educating students on climate change to collecting data used by researchers, they are true advocates for this coastline.” - Jeff L., Volunteer and Donor



CITIZEN SCIENCE

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RESEARCH

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SUPPORTERS

Page 18

While federal law protects Sanctuary waters, federal support for the Sanctuary to study its health and inhabitants, restore important coastal habitat, and inspire a diverse community of active ocean stewards, is limited. The Association helps achieve these goals through scientific research, community-based conservation, and environmental education. The Association works to increase public appreciation and guardianship of the Sanctuary and to ensure a healthy and resilient ocean and coastline.

Association programs are carried out in partnership with the Sanctuary and engage nearly 14,000 adults and youths annually. They offer opportunities for participants to take hands-on roles in monitoring and protecting Sanctuary waters and coastline. In 2018 ...

263 Association volunteers

helped monitor or restore over

200 miles

of Sanctuary coastline

Association Education Programs taught

9,581 K-12 students

and brought Sanctuary experiences to

3,262 members of the public

Dear Friends of the Greater Farallones,

The theme of 2018 for the Greater Farallones Association was **collaboration**, an essential part of environmental conservation. From involving Bay Area youth in real coastal science to bringing together diverse stakeholder groups to tackle kelp forest loss, the Association encourages participation from all members of our community to study and protect our local ocean and coastline. As President of the Greater Farallones Association Board, it is my pleasure to share a few examples of our accomplishments this year:

2018 marked the 25th Anniversary of our Beach Watch Program, which collects vital ecological and environmental data along Sanctuary beaches to inform important conservation decisions. Beach Watch is a **multi-beneficial collaboration** among resource managers, scientists, and our hard-working volunteers. As the first line of defense against oil spills and other environmental events, together we do what no group of scientists could do alone: monitor over 211 miles of coastline.

In 2018, our organization **brought together** scientists, agencies, industry, tribal representatives, and community members to solve one of the biggest problems facing our Sanctuary: kelp forest loss. Since 2012, bull kelp forests off the North-central California coast have been almost completely decimated, leaving thousands of species at risk. Thanks to our Kelp Recovery Project, the Association and its partners will take action to restore and increase the resiliency of the habitat for years to come.

Our marine science education programs bring hands-on learning to low-income communities and under-resourced schools. LiMPETS, a citizen science and STEM K-12 education program, is one of the only environmental education programs in the Bay Area that engages students in the practice of science from start to finish. In 2018, LiMPETS taught over 2,000 students, empowering them to collect real scientific data, and fostering a positive, inclusive, and **collaborative learning environment**.

As I report on 2018, we are already building on our extraordinary successes and developing new initiatives and collaborations to further strengthen and expand our efforts for 2019. Our work is only possible through an energized and supportive community filled with passionate individuals like you. **Thank you for collaborating with us to keep our precious ocean wildlife healthy and thriving.**

With gratitude,
Erica Mattson



Erica Mattson
Board of Directors President

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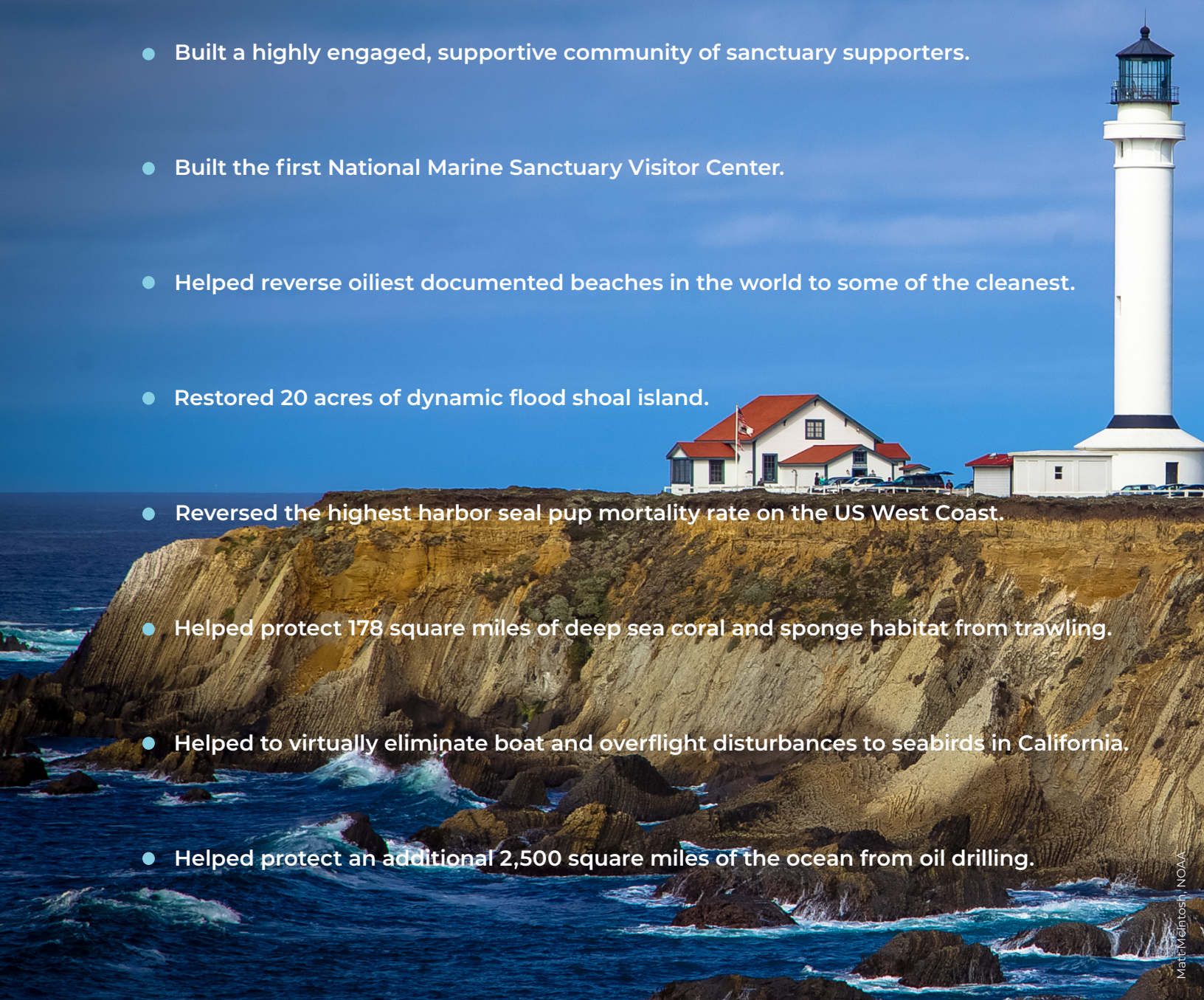


Maria Brown

MAJOR ACCOMPLISHMENTS OVER TIME

In partnership with the Greater Farallones National Marine Sanctuary, since its inception in 1995, the Association:

- Became the first National Marine Sanctuary support organization matching federal funds dollar for dollar.
- Helped to grow the first national marine sanctuary volunteer program, Beach Watch, 25 years strong!
- Built a highly engaged, supportive community of sanctuary supporters.
- Built the first National Marine Sanctuary Visitor Center.
- Helped reverse oiliest documented beaches in the world to some of the cleanest.
- Restored 20 acres of dynamic flood shoal island.
- Reversed the highest harbor seal pup mortality rate on the US West Coast.
- Helped protect 178 square miles of deep sea coral and sponge habitat from trawling.
- Helped to virtually eliminate boat and overflight disturbances to seabirds in California.
- Helped protect an additional 2,500 square miles of the ocean from oil drilling.



CITIZEN SCIENCE: BEACH WATCH

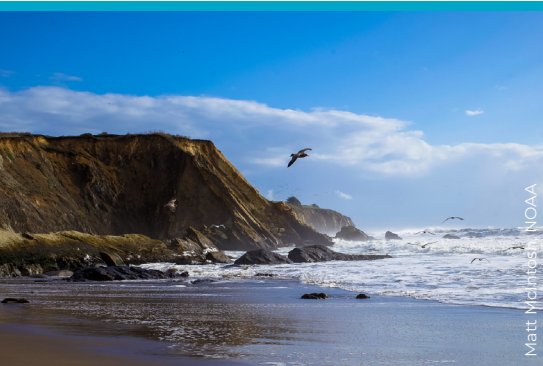
“ I contribute to a dataset that is used to better understand the health of the ocean environment and the organisms that depend on it.”
– Ellen Gartside, Beach Watch volunteer since 1993

Beach Watch, a shared program of the Association and the Sanctuary, is in its 25th year of training citizen scientists to monitor the health and wellbeing of their local beaches and wildlife in the Sanctuary.

IN 2018:

163 volunteers *monitored* **211** miles of coastline
covering **61** beaches *& documenting over* **400** species

- Beach Watch documented oil washing up on North-central California coasts and collected samples that helped identify the source as natural Monterey Formation Seep.
- Beach Watch data were presented at the “California Coastal Conditions, Strategies for the Present and Future” Conference resulting in several new data requests from researchers in the region.



Beach Watch Celebrates its 25th Anniversary!

A quarter-century ago in 1993, following a series of disastrous oil spills, Beach Watch was born out of a need for a baseline of conditions and wildlife along our coast. Decades later, the Beach Watch baseline dataset paints a complex portrait of the wildlife, ocean conditions, and human impacts in the region. From helping to determine critical restoration priorities and **securing \$52 million in restoration funds** after oil spills, to **training over 400 dedicated volunteers**, Beach Watch has been helping to protect the California coast through citizen science for over 25 years.

CITIZEN SCIENCE: LIMPETS MONITORING

“LiMPETS is an excellent opportunity for students to experience field work. And the data set (for rocky intertidal) is large and interesting enough to do real analysis.”
– Sarah Clowes, Teacher

[LiMPETS](#) provides hands-on, science-based environmental education that empowers students grades 6th-college to become informed and engaged ocean stewards. LiMPETS brings students to our ocean shores to observe animals in their habitats and collect real scientific data on intertidal and sandy beach habitats. The state-wide LiMPETS Network connects over 6,000 youth to the ocean each year. In 2018, over 50% of students were from low-income schools and over 75% were students of color.

EDUCATIONAL RESULTS

- 79% of students reported increased interest in and concern for environmental stewardship and conservation.
- 83% of students reported a better understanding of how their local actions impact the ocean as a result of participation in LiMPETS.
- 93% of teachers reported that the program helped them, as teachers, gain confidence in and increase their understanding of teaching science.



2,046
students



21
monitoring
sites



40
teachers



26
species
monitored

CITIZEN SCIENCE: MARINE DEBRIS

“I know the beach is for everyone to enjoy, but when I'm out here it feels like my own, and so I want to protect it. The marine debris program allows me to keep 'my beach' healthy and clean.”
 - Allan Schreiber, Volunteer

MARINE DEBRIS MONITORING

Marine debris is a global problem that impacts marine life, damages habitat, impedes navigation, impacts our economy, and is a risk to human health and safety. Over 8 million tons of plastic pollution enter our oceans every year. To develop strategies to address it, the Association's **Marine Debris Program** collects important baseline information on the types, quantity, and frequency of debris hitting Sanctuary shores, leading to efforts to reduce top trash items on our beaches.

ACCOMPLISHMENTS

- In 2018, the program completed its **5-Year Report**, showing that from 2012-2017, 145 volunteers, conducted 334 beach surveys across Point Reyes, San Francisco, and San Mateo coastlines, removing and recording over 30,000 pieces of marine debris.
- Data collected through the program will be used to reduce marine debris in the Sanctuary. Efforts will target items most frequently recorded through the program, including plastic bottle caps, straws, and shotgun shells.

From 2012 to 2017...



145
volunteers



6
survey sites



1,897
volunteer hours



334
beach
surveys



~30,000
items recorded
and removed

RESEARCH: OPEN OCEAN

OPEN OCEAN RESEARCH: ACCESS

The [Applied California Current Ecosystem Studies \(ACCESS\) Partnership](#) monitors seabird and marine mammal distribution and abundance, zooplankton prey availability, and oceanographic conditions. Partnering with the Greater Farallones and Cordell Bank National Marine Sanctuaries, and Point Blue Conservation Science, Association researchers monitor the ecosystem conditions of nearly 3,700 square miles of ocean. With 15 years of ongoing data collection, ACCESS continues to identify important patterns, trends, and anomalies.

ACCOMPLISHMENTS

- During the May-September sampling season, ACCESS recorded **838 whales**, including **65 blue whales** and **447 humpback whales**.
- ACCESS data continue to be used by the National Oceanographic and Atmospheric Administration (NOAA) to modify shipping lanes to reduce ship strikes to whales and to identify lost crab pots for removal to avoid whale entanglement.

TRACKING OCEAN CHANGES • SUPPORTING MARINE LIFE CONSERVATION



RESEARCH: DEEP SEA

DEEP SEA EXPLORATION

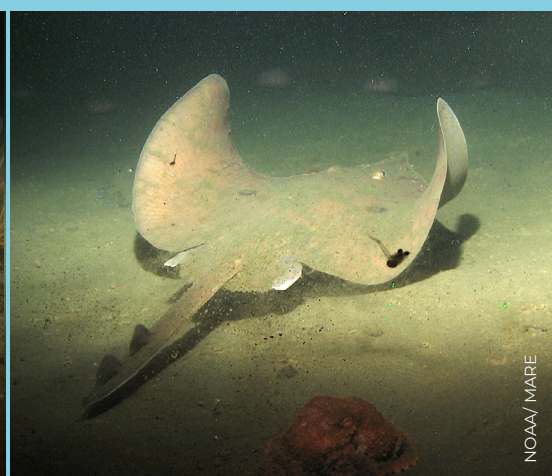
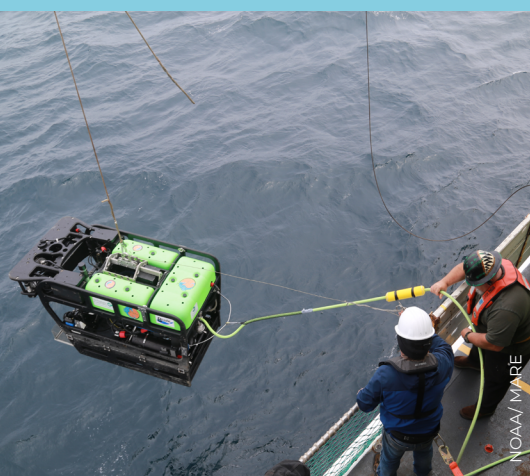
Deep-sea coral and sponge habitats are some of the most biodiverse in the ocean. The cold, nutrient rich waters at the bottom of the sea support an immense amount of life from fish to sponges to tons of microscopic plankton and bacteria. With an ever-increasing human impact on the planet and ocean, including the deepest places, there is an increasing need for research, management, and protection of the deep sea. The more we know about marine life in these areas, the better we can protect it.

ACCOMPLISHMENTS

- In August of 2018, Association staff joined Sanctuary scientists aboard NOAA's *Bell M. Shimada* for a two-week research trip to survey and map North-central California coast seafloor.
- The research team recorded images of habitats as deep as 2,000 feet.
- 31 specimens were collected for identification, including some species observed for the first time in these areas, and a new coral species!
- The Association used data collected from the cruise to develop outreach materials including a comprehensive storymap detailing deep-sea coral habitat and why its important that we protect it.

SCIENCE → CONSERVATION

Many of the surveys were in Essential Fish Habitat and Rockfish Conservation Areas, some of which have been proposed to be either newly opened or closed to fishing in 2020. The information collected through this research will be used to inform management of these sensitive marine areas.



CONSERVATION: BOLINAS LAGOON RESTORATION

“Every time I stand on that small island between mountains and sea I feel small and insignificant to the grand scale. Our restoration efforts will have earth-moving consequences for the Lagoon ecosystem!” – Bruce Bowser, Volunteer

BOLINAS LAGOON RESTORATION PROGRAM

The Association partners with the Sanctuary, Marin County Parks, UC Davis, and SF State, on restoration projects that strengthen the function and sustainability of Bolinas Lagoon, an internationally-recognized estuary. The [Bolinás Program](#) restores Kent Island, removes invasive crabs from Seadrift Lagoon, and protects the lagoon's natural resources through nature-based solutions.

IN 2018, THE PROGRAM:

- Held 15 restoration events comprising hundreds of citizen, students, and organizational volunteers; and totaling over 400 work hours.
- Restored 10 acres of habitat, allowing native plants to regrow and thrive.
- Removed 4,039 invasive crabs, and donated them to local farms, making this a truly surf-to-turf project.
- Launched the South End Living Shorelines Project, which seeks to implement nature-based techniques for protecting coastal habitat and wildlife, while safeguarding communities from future flooding and storm events.



100+
volunteers



10
acres of
habitat restored



4,000+
invasive crabs
removed

CONSERVATION: BULL KELP RECOVERY

BULL KELP RECOVERY PROGRAM

Kelp forests are an important coastal habitat, providing food and shelter for thousands of marine species. Since 2012, bull kelp forests along the North-central California coast have been almost completely decimated due to an unusual combination of climatic conditions and ecological stressors. In partnership with the Sanctuary and the California Department of Fish and Wildlife, the [Bull Kelp Recovery Program](#), established in 2018, aims to restore kelp populations through multi-phase, science-based research and restoration projects.



IN 2018, THE ASSOCIATION:

- Co-chaired a highly-collaborative working group comprised of diverse stakeholders to identify the management, restoration, and research needed to restore and increase climate resilience of bull kelp forests along the North-central coast.
- Developed of a comprehensive, phased Bull Kelp Recovery Plan to restore and monitor bull kelp forest including kelp predator removal, kelp spore planting, underwater and aerial monitoring, and public outreach.
- Established the Bull Kelp Recovery Program and affiliated Network of groups to implement the kelp recovery plan.



CLIMATE-SMART CONSERVATION & COASTAL RESILIENCE

The Association's [Ocean Climate Program](#) leads innovative projects to protect coastal habitats and prepare coastal communities for climate change. Promoting nature-based solutions, the program works to reduce greenhouse gas emissions and enhance carbon sinks, reduce climate change impacts on wildlife and people, and sustain vibrant and diverse ecosystems.

IN 2018, THE OCEAN CLIMATE PROGRAM:

- Identified habitats and communities along the Sanctuary coast most vulnerable to rising sea levels, extreme storms, and erosion, and developed strategies to protect them.
- Continued to take action toward its comprehensive Climate Action Plan, identifying and mitigating impacts of climate change on Sanctuary resources.
- Continued to make waves through the development of international climate adaptation tools and the re-design of a federal climate adaptation training course for resource managers.
- Further integrated climate-related topics into Association and Sanctuary educational and citizen science programs including LiMPETS Monitoring and K-12 Education.

COASTAL RESILIENCE

Sediment challenges along the North-central California coast include erosion of beaches, landslides, collapses of coastal bluffs, sediment accumulation within bays and estuaries, and blockages of river mouths.

To help address these diverse challenges, in 2018, the Association's [Coastal Resilience Program](#) completed the "Sonoma-Marín Coastal Regional Sediment Management Report," with strategies including living shorelines, research, education, and restoration. The report aims to initiate conversations at the local level to prepare the coast for the next 50 years of sediment management.



CONSERVATION: SEABIRDS

“The Seabird Protection Network staff is sincere – [they] want to hear our perspectives and learn from us. They have become part of the community and we love having them here!”
– Gretchen Kelly, Airport Manager

SEABIRD PROTECTION

When people, boats, or aircrafts get too close, seabirds flee, endangering newborn chicks who may be left behind. Working directly with stakeholders, [Seabird Protection Network](#) has significantly reduced boat and aircraft disturbances to key seabird colonies along the North-central California coast, helping seabirds and other marine animals thrive.

ACCOMPLISHMENTS

- Presented to over 100 military, Coast Guard, and civilian pilots, educating them on the need to fly "seabird safe" to avoid disturbing wildlife.
- Reduced disturbances to an estimated 3,000 sensitive seabirds nesting at Devil's Slide Rock through outreach to participants at the Dream Machines Air Show, an annual event for plane enthusiasts.



Reduced disturbances to ~3,000 nesting seabirds.



CONSERVATION: WHALES

WHALE CONSERVATION

The Association partners with Greater Farallones and Cordell Bank National Marine Sanctuaries, and Point Blue Conservation Science, to reduce ship strikes to large whales in California waters through [Vessel Speed Reduction \(VSR\)](#).

California is home to seasonal feeding grounds for many species of endangered whales. Also transiting these waters are thousands of commercial ships, putting whales at risk. Reduced ship speeds and strategically placed shipping lanes have been shown to effectively reduce fatal ship strikes to whales.

ACCOMPLISHMENTS

- The Association and partners have successfully leveraged data collected through their ACCESS partnership to move shipping lanes out of whale paths in the Sanctuary.
- As a result of the Association and partners' outreach to shipping companies, 45% of the 8,000 inbound vessels using zones outside San Francisco Bay have voluntarily reduced their speeds in order to protect whales from strikes.



Successful outreach to shipping companies leads to a safer ocean for whales.



John Calambokidis, Cascadia Research



Chad Kiro, NOAA Fisheries

EDUCATION: K-12 PROGRAMS

Using the weird and wonderful creatures of the sea to inspire curiosity and wonder, Association and Sanctuary expert educators help K-12 students to discover the ocean, sparking interest in science and their local coastline. In 2017-2018 school year, using Next Generation Science Standards, Association and Sanctuary education programs served **7,535 students**, of which **37% were low-income students**, bringing exciting hands-on ocean science directly to Bay Area classrooms.

2,635 students participated in lab activities and explorations of exhibits on marine life and ecosystems through [Sanctuary Visitor Center Field Trips](#).

3,601 students experienced the Sanctuary—with topics like sharks, seabirds, whales, and more—in their classrooms through the [At Your School](#) program.

387 San Francisco children received progressive, interactive lessons on Sanctuary wildlife and habitats through the [Oceans After School](#) program.

912 students learned about sustainable fisheries from [Fishermen in the Classroom](#) (in partnership with the Aquarium of the Bay).

“The 18-hour Oceans After School program was one of the best programs our school has ever had! Every part of the program tied into our science standards and my kids just loved it.”
– Elementary Afterschool Teacher



EDUCATION: FAMILY & PUBLIC PROGRAMS

The Association offers classes, excursions, and events for the whole family. Through family workshops, public programs, and seasonal camps (in partnership with the Sanctuary, Randall Museum, and 7 Teepees), San Francisco Bay Area residents learn about our local ocean environment and how to protect it. Last year:

226 kids experienced ocean science during [Farallones Camps and Mini-Camps](#), nearly doubling the previous year's reach.

975 budding marine biologists and their families learned about the ocean and its wildlife through [Family Workshops](#).

240 people explored the Sanctuary through [Sanctuary Explorations](#) like wildlife walks, bioluminescence kayaking, whale watching, tidepool adventures, and more.

321 people attended Association-sponsored [Sanctuary Art & Science Soirées](#) where they learned about marine wildlife from world-renowned scientists.

1,500+ scientists, educators, and community members celebrated the annual return of white sharks to the Sanctuary at [Sharktoberfest](#).

ADDRESSING A NEED

FARALLONES CAMP EXPANDS!

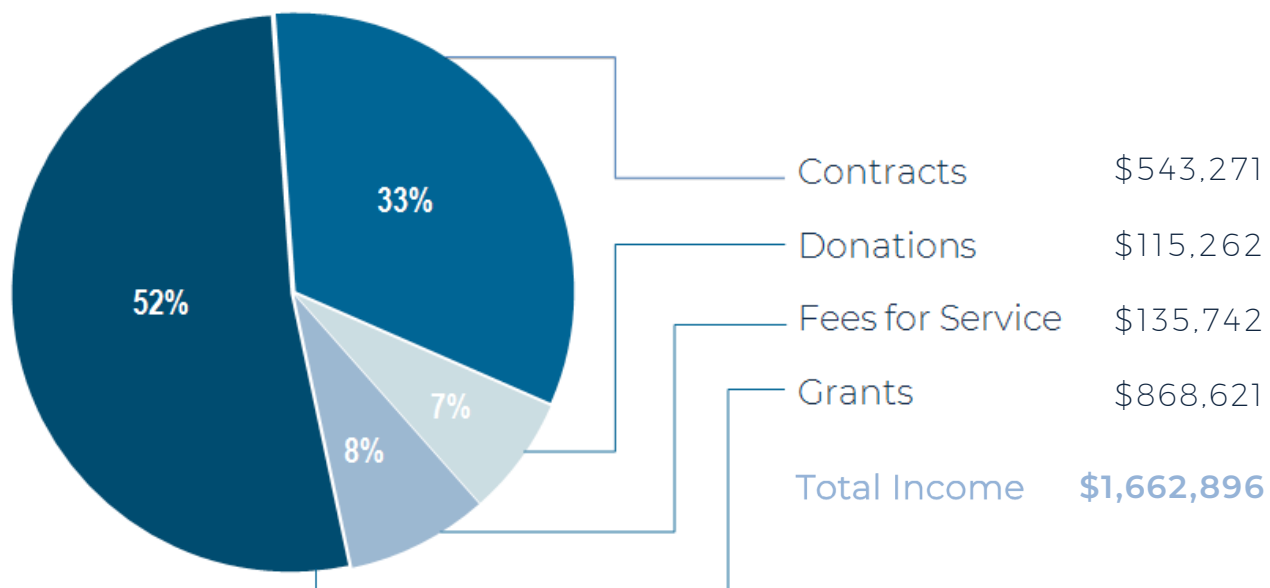
Throughout the year, school breaks leave parents seeking engaging and educational options for their children. To address this need, the Farallones Camp expanded to winter, spring, summer, and fall! The Farallones Camps engage children ages 8-12 in active marine science learning. Through fun, hands-on activities, intrepid campers explore the diversity of our local ecosystems, using real scientific techniques for studying the ocean.



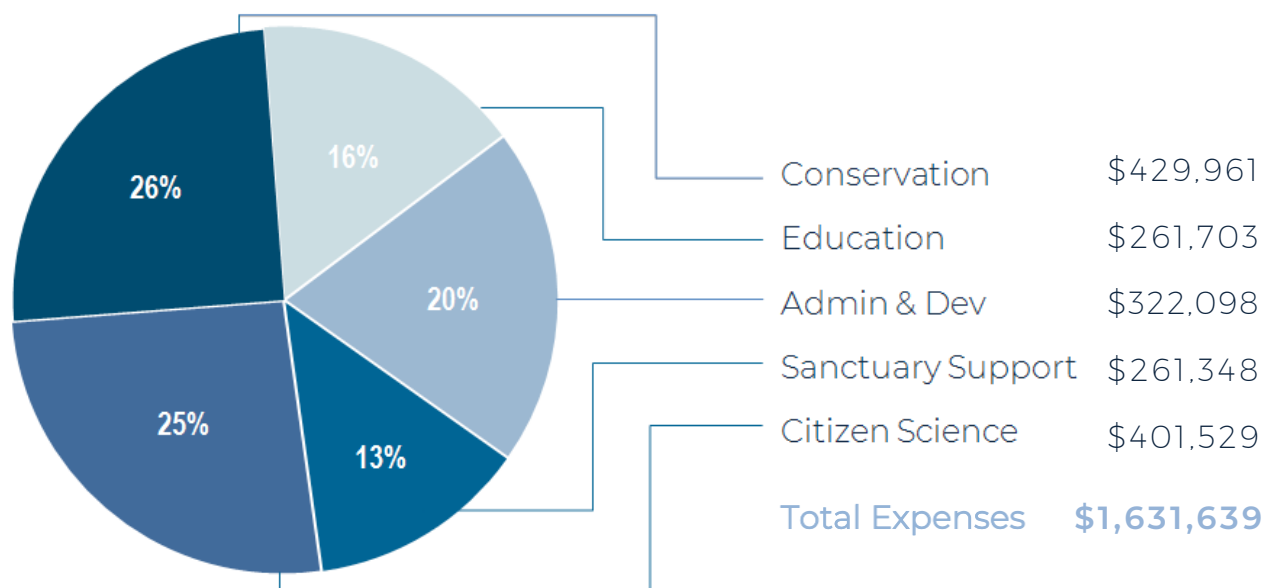
FINANCIALS

2018 FINANCIALS

Income



Expenses



* Includes joint venture with Sanctuary Supporters, LLC.

SUPPORTERS

DONORS

\$50,000+

California Natural Resources Agency
David & Lucile Packard Foundation
Greater Farallones National Marine Sanctuary
Kingfisher Foundation
National Fish & Wildlife Foundation
San Francisco Department of Children Youth & Their Families

\$25,000+

Anonymous Donor
Disney Worldwide Conservation Fund
Hellman Foundation
Jeff Loomans
Marine Mammal Commission
Resources Legacy Fund Foundation
Seadrift Homeowners Association

\$10,000+

California Coastal Commission
California State Coastal Conservancy
Change Happens Foundation
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Jan Chong
JEC Foundation
Museum Foundation of Pacific Grove
Oiled Wildlife Care Network
Tom & Linda Ciotti
Tomberg Family Philanthropies

\$5,000+

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Deborah Houlihan
Keith Campbell Foundation
Langendorf Foundation
Marin County Parks
Michael Siliski
Nancy Black
National Environmental Education Foundation
National Marine Sanctuary Foundation
Robert & Paula Reynolds

\$2,500+

Annette Brands
Jeff Mace
Sidney Stern Memorial Trust
Steven Tamm
West Marin Fund
Victor Belfor

\$1,000+

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Gant Family Foundation
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Maria Brown
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Legacy Society

Robert Wilson
Thomas Kowalski



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