

CALIFORNIA COASTAL COMMISSION

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RE: 2018 Public Education Program Update

At the Coastal Commission meeting of Wednesday, November 7, 2018, the staff of the Public Education Program will update the Commission on program activities and accomplishments for the past year. This memo provides a summary of these activities and accomplishments.

Background

The Coastal Act lays out the foundations of the Commission's Public Education (PE) Program. The Coastal Commission's Strategic Plan articulates current goals and objectives.

Coastal Act, Section 30012, states that "an educated and informed citizenry is essential to the well-being of a participatory democracy and is necessary to protect California's finite natural resources, including the quality of its environment. Through education, individuals can be made aware of and encouraged to accept their share of the responsibility for protecting and improving the natural environment." This section of the Coastal Act further states that "the Commission shall carry out a public education program that includes outreach efforts to schools, youth organizations, and the general public for the purpose of promoting understanding of, fostering a sense of individual responsibility for, and encouraging public initiatives and participation in programs for, the conservation and wise use of coastal and ocean resources. Emphasis shall be given to volunteer efforts such as the Adopt-A-Beach program."

The Coastal Act also addresses funding for the PE Program. Section 30012 (c) states that "the Commission is encouraged to seek funding from any appropriate public or private source and may apply for and expend any grant or endowment funds for the purposes of this section without the need to specifically include funds in its budget."

2018 Activities

In 2018, the PE Program continued to carry out the Coastal Commission's core education and outreach programs, while adding enhancements and developing new initiatives. Working collaboratively with a wide array of organizations and individuals, including non-profits, government entities, schools and other educational institutions, citizen groups, recreational associations, visitor-serving facilities, and businesses, these programs seek to educate and involve Californians of all ages, ethnicities, income levels, and physical abilities, whether they live along the coast or inland, with a particular emphasis on reaching Californians who are underserved in terms of access to the coast and to marine education programs.

Topics addressed include ocean pollution (including marine debris), habitat restoration, climate change, sustainability choices, wildlife, ocean literacy, coastal science, and policy. Some PE Programs reach the public directly; while others provide coordination, resources, grants, training, and technical assistance. Here are a few of the highlights of 2018:

- The 34th Annual California Coastal Cleanup Day on September 15, 2018 attracted 64,756 volunteers who collected 577,161 pounds of debris. There were 953 cleanup sites spread across 55 counties.
- Coastal Commission staff assumed lead responsibility for the California King Tides Project, which invites the public to observe the highest high tides of the year as a preview of coming sea level rise. The project is now on the Coastal Commission's website and staff and partners are planning for a new geographic Story Map display of the 2018/2019 King Tides photos (in December 2018 and January 2019).
- Staff collaborated with the California Ocean Protection Council (OPC) and others on updating and revising the California Ocean Litter Strategy, which was completed and formally adopted by the Ocean Protection Council at their April 2018 meeting.
- Staff chaired two sessions at the 6th International Marine Debris Conference in March 2018, sponsored by NOAA and the UN Environment Programme.
- Radley Studios created a fantastical, [animated public service announcement](#) for the Whale Tail® License Plate that evokes the magic of the California Coast.
- Close to 10,000 people took the online Clean Boating Quiz, which was triple the number of responses of last year's quiz.

This report organizes PE Programs according to audiences, beginning with programs that target specific audiences, followed by programs for schools and educators, and programs for general public audiences. The final sections address PE work that involves policy and coordination, and funding sources.

Program Activities and Accomplishments 2018

Programs for Specific Audiences

The PE Program serves a wide range of audiences, and many programs serve multiple audiences. The following two programs serve specific audiences, the first is for visitors who want to borrow a beach wheelchair, and the second serves the boating community.

Beach Wheelchairs

The Coastal Commission is committed to helping *all* visitors to the coast experience the beach firsthand. The Commission's beach wheelchair program aims to ensure that these chairs, which have wide, balloon tires that are able to move across soft sand, are widely available. To this end, the Commission has awarded nearly \$148,000 to a variety of jurisdictions through the history of the program, up and down the coast for the purchase of beach wheelchairs and their storage lockers. In 2018, these included four storage lockers with combinations for new beach wheelchairs in Santa Barbara County, in order to meet increasing demand for their use without requiring parks staff to be onsite. In some years this funding has been made in conjunction with matching contributions from the Coastal Conservancy.

The Commission maintains a webpage - <http://www.coastal.ca.gov/access/beach-wheelchairs.html> - that includes a map showing the location of beaches with wheelchairs available for use by the public.

Boating Clean and Green Program

This program is a partnership with the California State Parks Division of Boating and Waterways. The program educates boaters about clean and safe boating practices and provides technical assistance to marinas and local governments to increase the availability of environmental services for boaters.

Clean Boating Kits and the Dockwalker Program. In 2018, the Boating Clean and Green Program developed and distributed 8,500 boater kits. Boater kits are designed to provide boaters with knowledge and tools to reduce their environmental impact, and include information on clean boating practices as well as an oil only absorbent pillow, an oil absorbent sheet, and a fuel bib. The kits are distributed by partner Dockwalkers and staff. In 2018, staff redesigned the boater kit and created an oil absorbent sheet envelope that both serves as container for the kit contents, as well as provides an additional oil absorbent. Staff conducted 15 Dockwalker trainings at various locations throughout the state in 2018, and trained more than 200 Dockwalkers. Dockwalkers donated over 1,900 hours to the program conducting face-to-face education.

Boat Shows, Boating Events, and Clean Boating Seminars. Staff participated in two boat shows and boating events and conducted seven clean boating seminars in 2018, which altogether reached over 1,200 boaters.

Fishing Line Recycling Stations and On-Board Program. Since 2009, the program has installed a total of 271 on-shore fishing line recycling stations, located at piers, marinas, boat launch ramps, etc. throughout the state. The locations can be seen at: <http://goo.gl/maps/5zF5F>. As of October 2018, 1,672 pounds of fishing line have been collected and recycled. Stretched out, this line would stretch from San Francisco to Barrington, Nova Scotia, Canada!

In addition, staff worked with Santa Barbara Harbor to install on-board fishing line recycling containers on two charter boats in the Harbor, and with the Greater Farallones and Monterey Bay National Marine Sanctuaries to install containers on 12 charter boats in the San Francisco Bay Area. As of October 2018, 118 pounds of fishing line have been collected and recycled by the On-Board Fishing Line Recycling Program.

CA Stow It, Don't Throw Project. Staff continued working with the Stow It, Don't Throw It Project to implement a project to build and distribute portable fishing line containers using used tennis ball cans. The fishing line containers are created by students and then distributed for free to fishermen to hold old fishing line until they can get to a recycling collection site or secure trash can. Since 2015, students from 50 schools have constructed 5,477 containers, which were distributed to fishermen by the students, Boating Clean and Green staff, and partners.

Changing Tide Newsletter. This newsletter focuses on new trends in clean boating practices and environmental services for boaters statewide. It is published jointly by the three chapters of the California Clean Boating Network (a forum of members of from the boating industry, government agencies, and environmental groups). In 2018 the program distributed three issues of the newsletter (8,000 copies each).

Marinas and Yacht Clubs Oil Spill Preparedness Workshops. The Marinas and Yacht Clubs Spill Response Communication Packet is designed to help boating facilities access needed information in the event of an oil spill. The Packet was developed by a working group led by Boating Clean and Green staff and comprised of representatives from Office of Spill Prevention and Response (OSPR), the Coast Guard, California Office of Emergency Services (CalOES), the Port Captains and Harbormasters Association, Marina Recreation Association, the Clean Marinas Program, Pacific Inter-Yacht Club Association, and the San Francisco Bay Conservation and Development Commission.

In 2018, Boating Clean and Green staff, OSPR and CalOES conducted three workshops for boating facilities in Rio Vista, Sacramento, and Vallejo to introduce the Packet. The workshops were attended by 53 marina and yacht club operators (Strategic Plan Action 2.3.2). In addition, Boating Clean and Green staff, OSPR, CalOES and the US Coast Guard conducted a free four hour Oil / Hazardous Substances Emergency Response HAZWOPER First Responder Awareness Training for southern California marina and yacht club operators in Marina Del Rey. Twenty-five boating facility operators attended this training.

Coastal Cleanup Day for Boating Facilities. Again this year, the boating community demonstrated its commitment to keeping our shorelines and waterways clean. Sixty-six boating facilities and boating groups participated in the event with 1,849 volunteers who cleaned 131

miles and collected 11,654 pounds of trash and recyclables on land and from 233 vessels (kayaks, canoes, and dinghies). Eighteen percent of the volunteers brought their own reusable cleanup supplies. (Strategic Plan Actions 7.2.4 and 7.3.1)

Aquatic Invasive Species Prevention Workshops. In order to increase awareness about the impact of aquatic invasive species (AIS) and prevent their spread, staff and partner organizations offered three workshops in Sacramento, Sausalito, and San Jose attended by 65 people. Participants learned how to prevent spreading AIS by inspecting and cleaning equipment and watercraft. The workshops were co-hosted by California Department of Fish and Wildlife, U.S. Fish and Wildlife Services, the Smithsonian Environmental Research Center, and UC-Davis Romberg Tiburon Center.

Online Clean Boating Quiz. From July 9 to Sept. 2, 2018, Program staff conducted a statewide online campaign to increase awareness of clean boating practices. Advertisements challenged recreational boat owners to take a short quiz to test their clean and green knowledge about preventive practices related to oil, fuel, hazardous waste, sewage and marine debris. The Program used the quiz to reach boaters not reached at boat shows, boating events or through the help of the partner Dockwalkers.

Geo-targeted outreach messages about the six-question educational quiz reached California boaters via native ads, posts and tweets on social media (Facebook and Instagram). Based on last year's pilot program. Staff set a modest 2018 goal of collecting 3,000 responses. Almost immediately, the response rate jumped until it had grown to three times the original goal for a total of 9,781 responses. Weekly quiz incentives included life jackets or the California clean boater kits for randomly selected participants.

Programs for Schools and Educators

The Coastal Commission supports teachers in educating students about California's coast and ocean through free resources in print and online, grants, teacher training workshops, and other programs. From January 1 through October 14, 2018, the Coastal Commission's webpages specifically for educators received more than 126,500 pageviews.

Curricular Resources

The Public Education Program offers multiple curricular resources for teachers. Among these is ***California Coastal Voices***, made up of six project-based units for middle and high school teachers focusing on coastal science, policy, and management in the context of issues facing the California coast. This book encourages students to get involved in issues of importance to their community, and is available as a PDF along with extensive associated online resources such as slide shows, data sets, and videos. ***Waves, Wetlands, and Watersheds*** is a science activity guide for 3rd through 8th grade teachers that addresses topics such as endangered species, marine debris, coastal geology, water use, and water quality. This book is available free to California educators, both online and in hard copy, with student handouts also in Spanish.

The **Schoolyard Cleanup Program** provides support to teachers and school groups to do cleanups on their school grounds. Schools unable to take a field trip to the beach or river for Coastal Cleanup Day or an Adopt-A-Beach event (or those who want to expand their efforts) are encouraged to do the important work of preventing litter at the source. Teachers may sign up for the program on the Commission's website, which includes related lessons and teacher resources, detailed cleanup instructions, and post-cleanup analysis guidance. The activities of planning and carrying out the cleanup, collecting and analyzing the data, and communicating and acting on the results are directly aligned to the Next Generation Science Standards and support Common Core State Standards as well. Since the program's launch in fall 2014, teachers have reported nearly 15,500 students taking part in the program.

The Coastal Commission website also offers stand-alone lessons relating to topics including the properties of plastic, waste reduction, climate change, and whales. In 2018, Public Education staff presented teacher workshops in Los Angeles in partnership with USC Sea Grant, in Calabasas in partnership with Resource Conservation District of the Santa Monica Mountains, in San Diego at the California Council of the Social Sciences annual conference, and in Pasadena at the California Science Teachers Association annual conference. Online webinars were also offered in September and October. (Strategic Plan Actions 3.3.3, 7.3.1, and 7.3.3)

Coastal Art & Poetry Contest

Open annually to California students in kindergarten through 12th grade, the contest's goal is to encourage youth to reflect on the beauty and spirit of California's beaches and ocean, and inspire a greater sense of stewardship for these natural places. Every year, judges select five winners each in art and poetry, and around 40 honorable mentions. Since 2003, students from all over California have submitted 33,900 entries to the contest, including 2,597 in 2018. The winning entries and honorable mentions can be viewed on the [Commission's website](#).

Each year's winners and honorable mentions are shown in a traveling exhibit at venues up and down the coast. The 2018 contest exhibit locations are the Estuary & Ocean Science Center in Tiburon; the Ford House Museum in Mendocino; Channel Islands National Park Visitor Center in Ventura (through mid-November); and, from December through late-January, the Seymour Center in Santa Cruz. Contest prizes for 2018 were provided in part by donations from Acorn Naturalists and Aquarium of the Pacific. The Tabula Poetica program at Chapman University provided judging assistance. Artwork from the Coastal Art & Poetry Contest is used in many Commission publications and its website.

Kids' Ocean Day Adopt-A-Beach School Assembly Program and Beach Cleanup

This Program includes a school presentation about the ocean, marine debris, and pollution prevention, as well as a beach cleanup event. It takes place in six locations: San Diego, Huntington Beach, Los Angeles, Monterey (where students are bused from Fresno), San Francisco, and Humboldt. In all of the locations, the emphasis of this program is on involving students from underserved schools, and often it provides the opportunity for a child's first visit to the beach. Nearly 8,000 students participated in the 2018 cleanup event, and even more saw the assembly. Students also sat in formation on the beaches to create images and text photographed from the air; in 2018 this "aerial art" featured a "Make Waves" theme. Photos of the aerial images can be viewed at www.oceanday.net.

Whale Tail® Grants Program

The Whale Tail® Grants Program supports coastal and marine education and stewardship projects in California by awarding funding to schools, nonprofit organizations, and public agencies throughout the state. The funding for these grants comes from the sales and renewals of the Whale Tail® License Plate and since FY2015/16, also from voluntary contributions to the Protect Our Coast and Oceans Fund on the state tax return form. In the 20 years since the program began in 1998, the Whale Tail® Grants Program has awarded \$12.4 million to 685 different projects. The program targets both children and the general public with an emphasis on reaching underserved communities.

In 2018, the Commission continued its efforts to make the grants program more accessible and inclusive. The Commission approved a new funding category for grants for organizations with annual operating budgets of \$500,000 or less, that are working with underserved communities. Other recent activities included: providing a well-attended live (and recorded) webinar for prospective grant applicants to assist them with the grant application (first offered in 2017); funding Youth Outside to provide workshops in March 2018 for Whale Tail® grantees on cultural relevancy, equity, and inclusion in environmental education; increasing outreach regarding available funding to the Coastal Commission's Environmental Justice mailing lists; and considering cultural competence and cultural relevancy when scoring grant applications.

In Fiscal Year 2017/18, the Commission awarded \$709,000 to 31 different projects, including several in a subcategory for projects addressing climate change and/or ocean acidification (Strategic Plan Action 3.3.3). Projects awarded Whale Tail® Grants were located in a broad range of California cities up and down the coast and in some inland locations as well. Examples of funded activities included: bilingual watershed education in Chula Vista; free community shuttles to the coast in San Francisco; student dune restoration research in Monterey County; sea level rise exhibits in Eureka; and teaching Los Angeles teens about water quality in their local urban waterways and the coastal environment.

Staff analyzed the ethnic diversity represented by people served through the Coastal Commission's Public Education grantmaking. For Whale Tail® grants awarded in 2016/17 (the most recent year for which most projects have already shared results), 15 of the 42 grants served the general population and the other 27 grants served students, mostly in underserved communities (Figure 1).

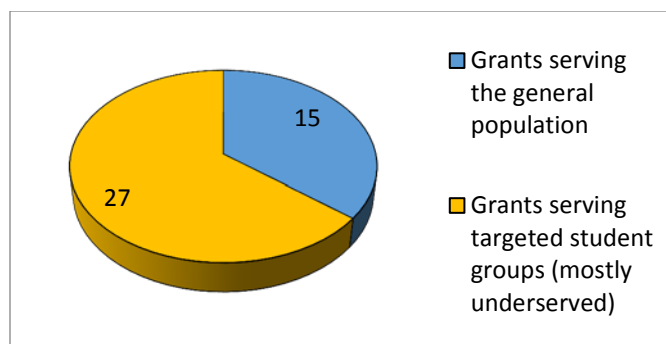


Figure 1-Grants Awarded in Fiscal Year 2016/17

Of these 27 grants reaching primarily underserved student groups, 79% of the participants were non-white. Specifically, just over half of the students were Latino, 12% were Asian or Pacific Islander, 7% were African-American, 2% were Native American, 6% were in another category (often more than one race), and 21% were Caucasian (Figure 2).

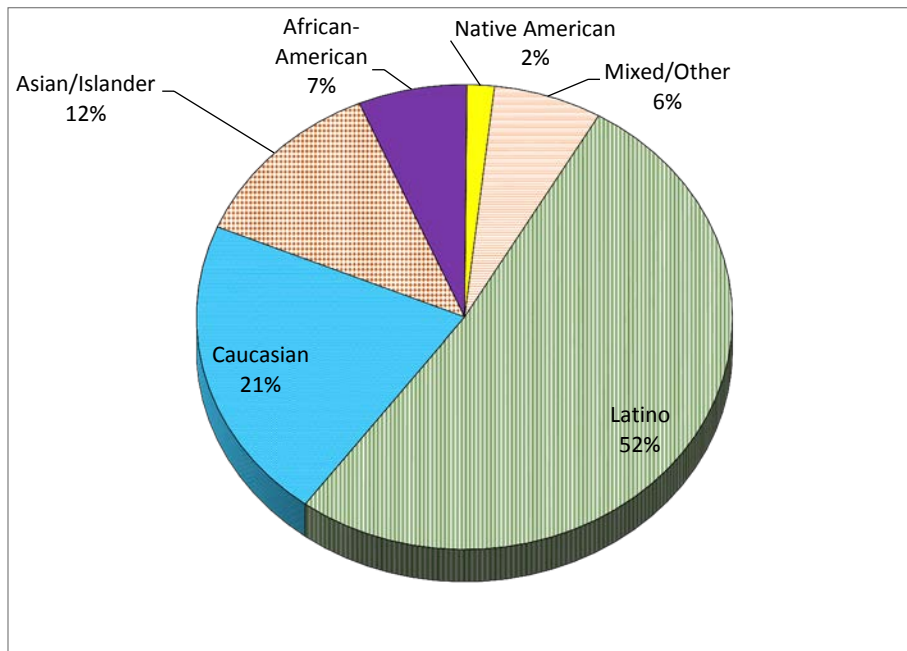


Figure 2 - Composition of Whale Tail® grantees reaching primarily underserved student groups

Comparing this data to the overall ethnic makeup of the state in 2017 (Figure 3), in 2016/17 the program reached proportionally more students from Latino populations (52% of target audiences versus 39% in population), more Native Americans, African Americans, and students of mixed race, fewer students of Asian or Pacific Islander decent, and fewer Caucasian students (21% versus 37% in the general population).

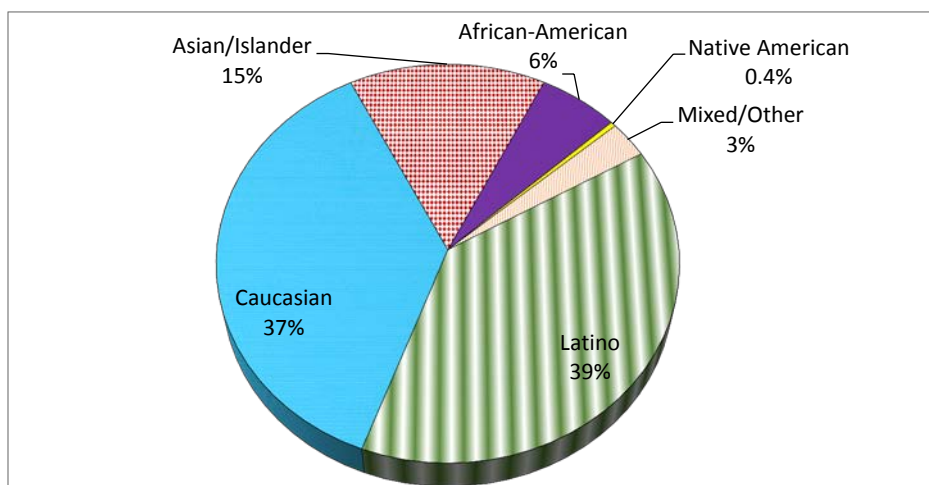


Figure 3-State Population in July 2017

Programs for the General Public

California Coastal Cleanup Day

Over the past several years, the Commission staff has expanded outreach and significantly grown the annual California Coastal Cleanup Day (CCD) event. In 2018, the Coastal Cleanup Day program hosted one of its largest cleanups ever, with 953 individual cleanup locations across 55 counties. A total of 64,756 volunteers took part in the event, maintaining the cleanup's status as the state's largest annual volunteer event. (Strategic Plan Actions 7.2.5 and 7.3.1)

In addition to its strong support in coastal counties, the cleanup program continues to recruit participants from inland areas to clean creeks, rivers, and lakes. The goals of this effort are to capture trash before it has a chance to enter the ocean and to better connect inland communities to the health of our coast. In 2018, 16,627 volunteers cleaned rivers and waterways within inland counties, removing 269,148 pounds of debris. Combined with the data from coastal counties, Coastal Cleanup Day volunteers in total removed 577,161 pounds of debris from the state's coast and inland shorelines. This equaled about 6.4 pounds of debris per coastal volunteer versus almost 16.2 pounds per volunteer within the inland counties, a disparity that speaks to differences in the types of items cleaned up at inland versus coastal cleanups, as well as the need for expansion of cleanups along inland shorelines. Inland cleanups are more often dealing with illegal dumping of large items, whereas coastal areas yield mostly single use disposables and small pieces of plastic. If volunteers are able to remove that debris from inland areas before the rains begin in California, they can effectively prevent that debris from having the opportunity to wash down rivers and end up on our coast or in the ocean.

This year, the total amount of debris removed (that has been reported to date) is the lowest recorded during the cleanup since 1995, when just over 37,000 volunteers participated. Although staff cannot say for certain what is responsible for this drop in debris weight, a combination of increased awareness from public education efforts combined with California's many new regulations regarding trash – especially new stormwater regulations – doubtlessly played a role.

Looking back over the history of the program helps to highlight the cumulative benefit of this program to the health of the coast and ocean. Since the Coastal Cleanup Day Program's inception in 1985, over 1.5 million volunteers have helped remove over 24 million pounds of debris from California's coast, ocean, and inland shorelines. (Strategic Plan Action 7.2.5)

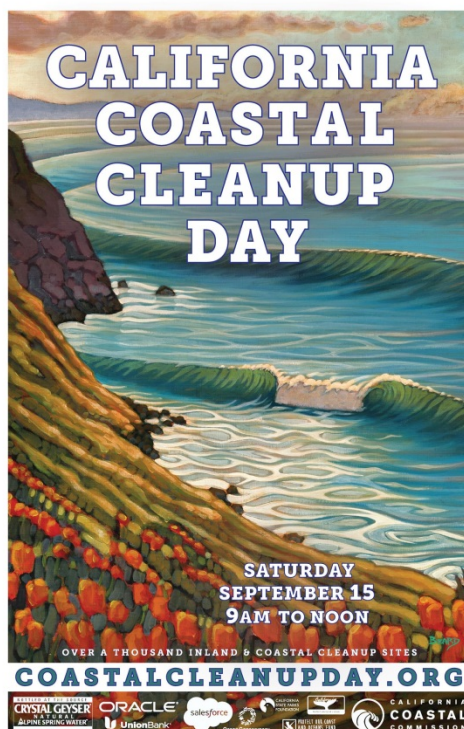
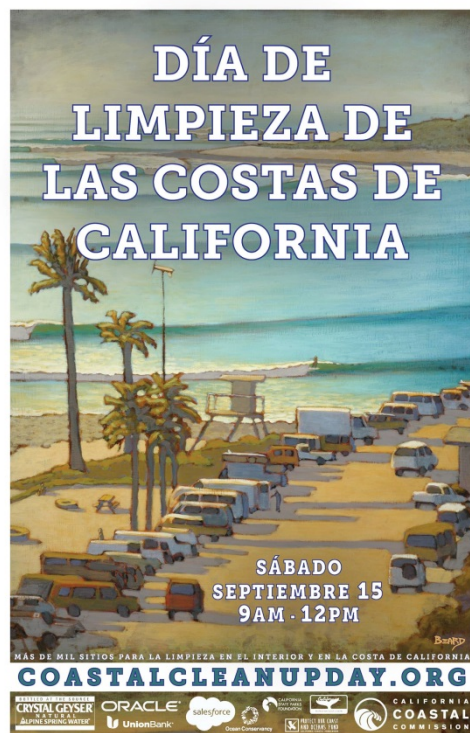
Coastal Cleanup Day Publicity. One of the most important roles Commission staff plays in coordinating Coastal Cleanup Day is to ensure that the public is aware of the cleanup, why we are doing it, and how they can be a part of the event. Similarly, working with the media to promote the event and tell the story of the cleanup is essential, not only to publicize the cleanup but also to enlarge the audience for the educational messages behind the cleanup. Through these efforts, Commission staff is able to promote broad participation, support local partners, and gain publicity both for the event and for the Coastal Commission itself.

Staff conducts outreach through press releases, media interviews, and by producing and distributing cleanup campaign posters, postcards, and on-line messaging. Media outlets provide the cleanup with extensive coverage, with hundreds of stories in newspapers, on-line publications, on radio and television, both before and after the event.

The cleanup has a long history of memorable, educational, and eye-catching event posters, dating back to its inception in 1985. This year the Commission staff decided to feature a California artist on the cleanup posters. Humboldt-area artist Matt Beard generously donated four pieces of his landscape artwork to the program, pieces that highlight the diverse landscapes found along the coast and inland as well. The beauty of Mr. Beard's artwork reminded viewers of what the California Coast *should* look like when not polluted with trash. The posters were designed by Public Education staff, and distributed broadly around the state. They were extremely well received by local coordinators and volunteers alike.

Campaign posters and postcards were printed in both English and Spanish, and distributed to across the state through local coordinators. Thanks to help from various multi-lingual Commission staff, campaign materials were also translated into Mandarin and Tagalog allowing for outreach into additional communities. Staff and local coordinators also shared the images widely across social media, and can be viewed on the Coastal Cleanup Day webpages, found here: www.coastalcleanupday.org

Here are the 4 posters, depicting from left to right on this page and the next: southern California, Central California, northern California, and an inland landscape of a Sierra lake:





Staff continued to refine a new tool for publicizing and growing the Cleanup – the Commission's [on-line map](#) showing every cleanup location in California. The 953 sites mapped this year were among the most ever publicized during the cleanup. The map was a powerful and valuable tool for volunteers and organizers across the state, providing a simple, one-stop approach to connecting volunteers with their cleanup location.

Corporate Partners in CCD. The Coastal Cleanup Day Program once again enlisted strong corporate partners, which greatly assisted outreach efforts. Crystal Geyser Alpine Spring Water continued as lead sponsor for the event. In addition to their financial support, Crystal Geyser provided free water, primarily in gallon-size containers, in 26 Coastal Cleanup regions, covering most Cleanup volunteers. This is a crucial benefit that helps local coordinators immensely. Crystal Geyser was joined by continuing sponsors Oracle, Salesforce, the Whale Tail® Ecoplate, Union Bank, California State Parks Foundation, Ocean Conservancy, along with new sponsors the California Tobacco Control Program and Visa, along with an array of in-kind and media support from partners around the state.

BYO for CCD. In an effort to reduce the amount of waste created by the event itself, volunteers are urged to bring their own reusable cleanup supplies from home, rather than relying on the single-use disposable plastic items available at cleanup locations. Staff has also been encouraging local organizations to seek donations of buckets and reusable gloves whenever possible. The BYO for CCD initiative has grown each year it has been in place, as more volunteers hear the message and more local coordinators gather enough reusable supplies to make the plastic bags and gloves unnecessary. In 2018, about one-half of all participants

brought a reusable item to the cleanup or were able to use buckets and other reusable cleanup items provided at their site.

The initiative is helping to reduce the environmental footprint of the cleanup – staff has ordered about 250,000 fewer single-use plastic trash bags over the past four years than it would have otherwise, while educating volunteers about simple lifestyle changes that cumulatively can have enormous benefits to coastal and marine environments. (Strategic Plan Action 7.3.2)

CCD Survey. Staff again surveyed Coastal Cleanup Day volunteers about their experience in order to continue to improve the event and learn about the overall impact of the cleanup. Volunteers were incentivized to take the survey with coupons for free tacos from Rubio's. Results from the survey are still coming in as of this report, so staff will provide a verbal update during the November meeting presentation.

Adopt-A-Beach Program

Commission staff has continued to improve the Adopt-A-Beach Program, connecting volunteers with the resources they need to organize their own cleanups and become environmental stewards in their local communities. The program has strong participation in the 15 coastal counties and in recent years has expanded into Alameda and Contra Costa Counties. Each of our 51 beach managers assists groups in conducting cleanups at their “adopted” beach, helping to bring more than 45,000 people to an Adopt-A-Beach Cleanup in 2017, contributing nearly 112,500 volunteer hours. Reports on participation in Adopt-A-Beach in 2018 are still coming in as of this report, so staff will provide a verbal update during the November meeting presentation. (Strategic Plan Action 7.2.5)

Each group that participates in three or more cleanups (or just one cleanup for school groups) through the Adopt-A-Beach program is recognized on the Commission's website and receives a certificate acknowledging their participation in the program and thanking them for their contribution.

California King Tides Project

The California King Tides Project helps people visualize how sea level rise will impact their lives by inviting them to take and share photos of the highest high tides of the year. In 2018 the Coastal Commission took on the lead responsibility for this project, which was launched in 2010 by a partnership of state, federal, and non-profit organizations. In preparation for the upcoming king tides on December 22 and 23, 2018 and January 20 and 21, 2019, the [California King Tides homepage](#) was moved to the Coastal Commission's website and Public Education staff are working with Mapping Unit staff to launch a new map-based platform to display king tides photos. During the 2017/2018 season, more than 20 local community events were held for California King Tides. Public Education staff is in the process of recruiting organizations to host events during the upcoming season.

Project Grow (formerly Community-Based Restoration and Education Program)

Project Grow (formerly Community-Based Restoration and Education Program) continued its work at the Upper Newport Bay, begun in 2001. The program name was changed in 2018 to reflect the program's balance of education and habitat restoration. The tag line "People and Nature Growing Together" is now used to communicate these objectives.

To date, the program has engaged over 25,600 volunteers, who together have restored more than 15 acres of coastal salt marsh, riparian and coastal sage scrub habitats. Volunteers have planted over 27,000 native plants (the vast majority of which were propagated in an on-site native plant nursery) and removed nearly 52 tons of invasive plant material (not including material left on site).

2018 programming worked on maintaining and expanding current restoration sites. Volunteers who attended restoration events represented schools, community groups, and corporations through such varied groups as Chapman University, Saddleback College, UC Irvine Center for Environmental Biology, Newport Bay Conservancy, Master Gardeners, PIMCO, Solid Waste Association of North America (SWANA), and St. Norbert's Catholic Church.

Training Environmental Leaders. Staff continued building its program to recruit and train college interns, who act as leaders for community habitat restoration events. Students from diverse backgrounds receive training in volunteer event management, environmental education, and ecological restoration techniques. In 2018, CBREP engaged 20 interns from UC Irvine Center for Environmental Biology, Chapman University, and Saddleback College. The recruitment and training of these student leaders increases the program's capacity to act as a resource for engaging the community with their local environment and ways they can protect and restore it. The students receive real world experience as environmental leaders in their community.

University Partnerships. Staff continued a partnership with the UC Irvine Center for Environmental Biology to conduct an ecological experiment studying the effectiveness of planting seeds versus seedlings in the coastal sage scrub ecosystem. In conjunction with the ecological experiment, the experience of volunteers was also recorded throughout the experiment in order to understand the drivers and pitfalls of a successful community-based restoration program. As of fall 2018, the data collection phase of the seeds versus seedlings experiment has been concluded. Data will be compiled and published by UC Irvine staff and made available to the public.

In fall 2017, staff began working with Chapman University students and faculty (as well as university laboratory resources) to examine carbon and nitrogen cycling through the Newport Valley restoration site. The results of this deeper examination of the site will be published in a scientific journal and provide further evidence to the value of the program's restoration effort and inform future restoration actions. Partnerships like these benefit both Project Grow and the universities' efforts to educate students and build knowledge about our coastal ecosystems and their human inhabitants.

Ecosystem Focus. 2018 also marked a shift toward new habitats in the program's ecosystem focus. Coastal sage scrub has dominated Project Grow's restoration work and continues to receive attention in our Newport Valley site. With new funding from local mitigation projects, Project Grow's restoration work is turning toward riparian habitats in Newport Valley. Additionally, the increased presence of a non-native, invasive salt marsh plant, Algerian Sea Lavender (*Limonium ramosissimum*) is also quickly moving up the program's priority list of restoration projects. As volunteers begin work in riparian and salt marsh ecosystems in fall 2018, future reports will show the continued progress of public education and habitat restoration in these new ecosystems.

Our Wetlands, Our World High School Curriculum. Staff continued to distribute the high school curriculum "Our Wetlands, Our World." The curriculum focuses on the history and ecology of Upper Newport Bay; the effects of urbanization, invasive species and loss of biodiversity; and the importance of restoration and stewardship. "Our Wetlands, Our World" activity kits allow teachers to borrow materials needed for each activity.

Digging In Guide. The CBREP also continued to distribute "Digging In: A Guide to Community-based Habitat Restoration." The Guide explains the basic steps of information gathering, site selection, project implementation, monitoring, maintenance, and working with volunteers.

Ocean and Coastal Photography Contest

In 2018 the Commission continued its partnership with the Thank You Ocean Campaign to co-host the 20th Annual California Ocean & Coastal Amateur Photography Contest. Several luxury hotels donated overnight stays for the winners. This year there was a total of 775 entries submitted. A panel of judges selected four winning photographs and 12 honorable mentions, and online voters selected their favorite as the "viewers' choice" winner. All of the winning photographs are featured on the contest website, <http://mycoastalphoto.com>.

Staff continued to offer a traveling exhibit of a selection of winning photographs. In 2018, the collection was displayed at the Redondo Beach Main and North Branch Libraries (in conjunction with the August Coastal Commission meeting), as well as Fremont Main Library (paired with a public lecture by CCC staff about plastic ocean pollution, rising sea levels, and what people can do to help).

Other Forms of Public Outreach

Coast4u.org. The Commission's Public Education web pages provide detailed information on all of the programs, contests, and resources offered to the public. They include Coastal Cleanup Day and Adopt-A-Beach information, downloadable curricular materials and hard-copy request forms; a video links page; a page in Spanish highlighting available Spanish language resources; Whale Tail Grant guidelines and application; how to purchase a Whale Tail® License Plate or donate to the Protect Our Coast and Ocean Fund; clean boating information; and interactive maps on topics such as Whale Tail® grant-funded project locations and beach wheelchair availability. In the first 9 1/2 months of 2018, the Public Education web pages had 328,732 page views.

Social Media. PE social media platforms provide the public with a way to keep apprised of opportunities and events and to interact on topics of mutual interest. The PE Program uses social media to raise awareness, share content, invite participation, communicate about programs, and help build a constituency centered on coastal stewardship and conservation. Through social media, staff builds and strengthens connections with other like-minded organizations and keeps our supporters engaged. Staff shares partners' posts, thanks sponsors and supporters, and celebrates pro bono advertising campaign teams.

Our numbers are growing on every platform: (as of October 16, 2018)

- [Tumblr](#): 117 posts
- [Facebook](#): 26,847 people like our page
- [Twitter](#): 12.7K+ followers
- [Instagram](#): 2,464 followers
- Constant Contact: Nearly 48,000 contacts in Public Education-related lists

Environmental Fairs and Events. Each year staff hosts educational booths at a variety of events encouraging coastal stewardship, environmental awareness, and marine education. This year we introduced several new activities bringing together creativity, science, and new ways to think about coastal issues such as ocean acidification and plastic pollution.

This year staff attended 16 events and spoke to 2,642 people. Our 2018 list of events includes Monterey Whalefest, SF International Ocean Film Fest, Berkeley Bay Festival, Los Angeles Sanitation Districts Earth Day, Santa Rosa Earth Day OnStage, EBMUD's Earth Day, Shorenstein's Earth Day, East Bay STEM Career Day, Sunset Elementary Fair, Monterey Bay Aquarium Ocean Plastic Pollution Summit, Discovery Day at AT&T Park, and North Bay Science Discovery Day.

Email News Blasts. Using the Constant Contact email service, we maintain a mailing list of subscribers who have signed up via fairs, Coastal Cleanup Day, and our website to keep in touch. Our targeted messages include; quarterly updates, grant opportunities, cleanup events, contest announcements and awards, as well as any new program initiatives and education materials.

Policy and Coordination

Public Education staff participates in a number of groups that focus on policy and broad topics of mutual concern related to environmental education, marine debris, and other issues. Participation in these efforts are helpful in a variety of ways – strengthening and expanding networks, sharing ideas and practices, learning about key trends and initiatives. These groups include the California Environmental Education Interagency Network, Community Resources for Science, and the Marine Debris Alliance.

The Marine Debris Alliance (formerly known as the Marine Debris Action Coordination Team of the West Coast Governor's Alliance on Ocean Health), which commission staff has chaired since 2008, continued its efforts to coordinate and collaborate work on marine debris along the West Coast. In 2018, the Alliance focused its efforts on communication among its members and steady expansion of its membership. (Strategic Plan Action 2.2.10)

Commission staff has also been collaborating with the California Ocean Protection Council (OPC) on their efforts to update and revise their California Ocean Litter Strategy, first adopted in 2008. Over the past 9 years, there has been significant progress made on actions listed in the initial strategy, so with help from NOAA's Marine Debris Program, the OPC initiated an update early in 2017. Staff was part of the planning team for these revisions. The plan was met with broad support from all involved in the process, and was adopted by the OPC unanimously at its April 2018 meeting.

Funding Sources

The main sources of revenue for the Public Education Program are the Whale Tail® License Plate and the Protect Our Coast and Oceans tax check off. In addition, via a partnership with the California State Parks Foundation, the Program raises funds through grants, corporate contributions, and other funding efforts. All of the funding sources described in this section implement Strategic Plan Action 7.4.6.

Whale Tail® License Plate

From its launch in 1997, through September 2018 (the most recent data available), a total of 250,719 California drivers had purchased the Commission's Whale Tail® License Plate, and sales and renewal fees had raised over \$102 million for environmental programs - \$28.7 million to the California Beach and Coastal Enhancement Account (CBCEA) and \$73 million to the Environmental License Plate Fund (ELPF). Each year, the legislature appropriates funds from the CBCEA to the Coastal Commission to carry out Coastal Cleanup Day, Adopt-A-Beach, and other coastal and marine education programs, including grants to nonprofits and local agencies. The CBCEA has also provided funds to the State Coastal Conservancy. The ELPF funds a variety of state environmental programs.

Over the 21 years of the Whale Tail® Plate's history, sales and renewals have provided a steady source of income to these programs. However, in the past few years, annual sales have begun

to decline, reducing the overall revenue available. A number of factors are likely responsible, including the length of time the plate has been on the market and stiff competition from other specialty license plates.

To raise awareness of the plate, staff worked with Radley Studios, which produced a new [Whale Tail® License Plate public service announcement](#) pro bono. We are promoting the PSA through our social media platforms and email list serve. We are planning to purchase ads to further the reach of this video. To begin planning for future marketing, staff released a Request for Proposals to contract with a marketing firm for a new Whale Tail® License Plate campaign, to launch in 2019 and continue throughout 2020.

In addition to traditional marketing, an important tool for public awareness is seeing the license plate on others' cars. We greatly appreciate all those who have supported this cause by purchasing a Whale Tail® Plate and encourage everyone to participate. Whale Tail® Plates can be purchased at www.ecoplates.com.



Tax Check-off Box for “Protect Our Coast and Oceans Fund”

Beginning in 2014, California taxpayers had the opportunity to check a box and make a donation to the Protect Our Coast and Oceans Fund in the voluntary contributions section of the state tax return. Funds from donations to the Protect Our Coast and Oceans Fund support marine education and coastal stewardship, through the Whale Tail® Grants Program.

As of the end of September, contributions to the Protect Our Coast and Oceans Fund for the 2017 tax year (i.e. taxes filed in 2018) totaled \$315,539. This year's "Check the Coast" marketing campaign featured the following well-known Californians from various sectors: professional beach volleyball player, Kerri Walsh Jennings; actor Nick Gonzalez; surfer Mary Mills, actor Ed Begley Jr.; Lieutenant Governor Gavin Newsom, Assemblymember Al Muratsuchi; Assembly Speaker Anthony Rendon; and Assemblymember Richard Bloom. Photography was donated by Mark Leibowitz.

The campaign ran between February and May of 2018 and included “out of home” and online components. Check the Coast ads were seen in downtown San Francisco BART stations, on BART trains, in LA Metro stations, and on buses in Marin, San Francisco, Berkeley, Oakland, San Mateo and Santa Clara Counties. On-line ads were geo-targeted and selected based on past campaigns performance. Ads ran on Surflife.com, The Inertia, OC Weekly, LA Weekly, Google AdWords, Facebook, Instagram, and Twitter. www.checkthecoast.org

In addition to staff posting extensively about the campaign on PE social media platforms, many of the well-known Californian’s who were featured in campaign images used their own social platforms to champion the coast and ocean and encourage donations to the fund. In addition, numerous partner organizations posted on social media on behalf of the campaign, which greatly extended its reach.

Cleanup Day Sponsorships

The Public Education Program raises funds for California Coastal Cleanup Day through corporate and government partners. A list of sponsorship partners for Coastal Cleanup Day 2018 is included in the section of this report on Coastal Cleanup Day, on page 12.

Other Fundraising Efforts

The Public Education Program encourages donations to support coastal and marine education programs. To this end, staff maintains a “[Donate/Shop for the Coast](#)” page on the www.Coast4u.org website. In addition to making a donation, the public can purchase t-shirts, hats, and posters. The site links to an [on-line art gallery](#) where the public can purchase framed prints of selected winners of the photo contest and art contest. Greeting cards, throw pillows, tote bags, and more, printed with the images are also available for purchase.