



10 YEARS OF CALIFORNIA'S MARINE PROTECTED AREAS

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CALIFORNIA MARINE SANCTUARY FOUNDATION

ACCOMPLISHMENTS & LESSONS LEARNED

INTRODUCTION

California Marine Sanctuary Foundation (CMSF) Overview

Since 1995, California Marine Sanctuary Foundation (CMSF) has worked to protect coastal ecosystems in partnership with local communities, government agencies, tribal communities, harbors and marinas, and NGOs. In 2007, we began to focus on marine protected area (MPA) education and outreach efforts, becoming the first NGO to work statewide, developing standardized educational products, facilitating monitoring and technological advances, and increasing stewardship through a variety of novel approaches.



CMSF promotes MPA efforts of the Statewide Leadership Team, the MPA Collaborative Network, CDFW, OPC, State Parks, and countless businesses for successful MPA implementation. CMSF enlists a strategic approach, connecting key players with real solutions and targeting less-engaged, harder to reach consumptive and non-consumptive audiences.

Audience- Specific Outreach

CMSF applies a strategic approach to reach critically important audiences by designing different products and tools that resonate with specific interest groups. CMSF initially created a suite of public audience materials to fill critical interpretive gaps. In 2012, we assessed knowledge gaps and needs for consumptive and nonconsumptive audiences. CMSF worked within each audience to identify the format, style and product of greatest value. For each audience, examples of the types of products created are noted.

 Recreational Anglers	 Ocean Recreationists	 Boaters, Harbors & Marinas	 State Parks
MPA Information Advertisements 	Ocean Recreation Guides 	Regulatory Signs 	Brochures 
Trainings 	Exhibits  Posters 	Brochures  Exhibits 	Interpretive Signs 
Exhibits 			Web Content 

HIGHLIGHTS & KEY FINDINGS

MPA Education and Outreach

Key Findings

CMSF played a critical early role in developing MPA outreach materials, in lieu of existing resources, at the time of network implementation. Over the past decade, and with the help of many partners, much has been accomplished in educating California's residents and visitors about MPAs. Today, the need is to disseminate existing resources and reach people in the style and manner most likely to increase awareness of MPAs, and consequently, compliance.

Education and Outreach must:

1. Target, directly engage, and involve key audiences.
2. Occur routinely to account for staff turnover, shifting needs, and issues.
3. Be innovative and captivating, storytelling in manners that will captivate unique audiences.

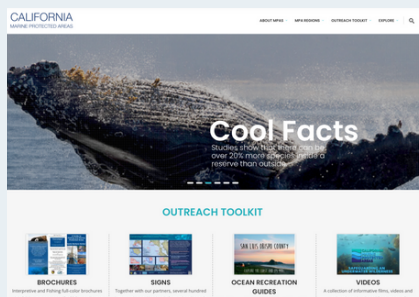
Landmark Elements

CMSF was instrumental in creating the first MPA Network education and outreach elements (signs, brochures, online MPA resource repository, web content, fact sheets, newsletters). Recently, CMSF developed a statewide series of PowerPoint trainings, launched social media channels, drove a social media campaign to raise awareness of MPAs, and crafted individual webpages for all 124 MPAs.

MPA Outreach Platforms

CMSF established critical public outreach platforms, including the CaliforniaMPAs.org website that hosts up-to-date information and MPA outreach resources created by partners and CMSF. CMSF also developed MPA focused social media platforms on Facebook and Instagram, and distributes an MPA Education & Outreach focused newsletter.

CaliforniaMPAs.org



[\(Link\)](#)

MPA Outreach Newsletter



77
Newsletters sent



360
Average number of recipients



[\(Newsletter Archive\)](#)

MPA Social Media Accounts



311
Posts made



1.2 million
Unique users reached



107,298
Engagements
(Likes, comments, shares)



[@ca.marineprotectedareas](#)



[@ca.marineprotectedareas](#)

Printed MPA Outreach Materials

Template Signs

In partnership with OPC and CDFW, CMSF developed signage templates that could be modified for individual locations, giving a standardized look to MPA network signs. Critical locations were identified for reaching consumptive and non-consumptive users and [various types of signs](#) were created to address interpretive and regulatory needs.

Laminated replicas were produced, and serve an invaluable outreach tool for ocean recreation businesses. CMSF also maintains the statewide database of all MPA signage, including images of installation, GPS coordinates, and contact information.

482
MPA Signs
Installed
Statewide

Regulatory Signs

Harbor Signs

[Signage](#) with MPA maps and regulations has been installed at all public and most private harbors statewide.



75 Harbor signs installed
1,486 Laminated versions distributed

'You Are Here' Signs

Using a Wildcoast template, CMSF developed [signs](#) to orient coastal visitors to their location relative to the nearest MPA.



86
YRH Signs
installed

No Fishing/ No Collecting Signs

CMSF ensured that almost every access point for state marine reserves has ['No Fishing/No Collecting' signs](#).



134
No Fishing
Signs Installed

Interpretive Signs

Signage targeting non-consumptive users was installed at coastal hotspots and popular coastal visitor centers.



156 Interpretive signs installed
419 Laminated versions distributed

Mixed-Messaging Signs

Recognizing the need for combined MPA messaging with other location-specific topics, CMSF designed unique signs in cooperation with consumptive and non-consumptive ocean recreation businesses.

31 Mixed-messaging signs installed

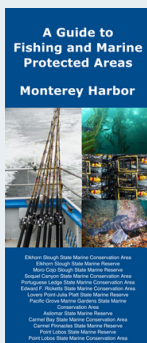


Template Brochures

A standardized design to promote MPA awareness was developed for [regulatory and interpretive brochures](#).

Regulatory Brochures

CMSF designed, printed and disseminated regulatory brochures, ideal for consumptive users, that include maps, local information, and MPA regulatory information.



17 Locations available
65,950 Brochures distributed

Interpretive Brochures

Due to the abundance of California State Parks adjacent to MPAs in the central and north-central coasts, CMSF created a set of interpretive brochures still in demand today.



13 Locations available
64,500 Brochures distributed

Printed MPA Outreach Materials ctd.

Fishing & MPAs Outreach Materials

In response to requests from anglers, CMSF created a suite of resources designed for different communication outlets. CMSF fabricated postcards, tidebooks with MPA content embedded, magazine articles, waterproof posters, and hosted advertisements in fishing magazines.

Post Cards

Postcards highlighting access to mobile MPA and fishing information were produced as a low-cost resource for far-reaching dissemination.

20,000

Post Cards distributed

Posters

A poster displaying mobile MPA resources was distributed to harbors, marinas, dive shops, and bait and tackle stores statewide.

1,100

Posters distributed



Tidebooks

CMSF worked to incorporate MPA information into California Tidebooks.

54,000

Tidebooks distributed

Paid & Organic Advertisements

CMSF placed advertisements in popular fishing magazines, on websites, and in on-line forums to raise awareness of the MPA Network and share regulatory information. Examples include Western Outdoor News, Fish Sniffer, fish report sites, Fred Hall Show program materials, and the International Sportsmen Exposition show guide.



28

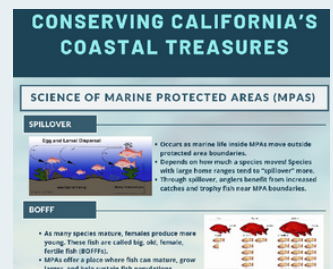
Advertisements placed

Exhibits

CMSF developed various exhibits to raise awareness of MPAs. Exhibits have been created for key partners who frequent events ([ReefCheck](#), [Clean Marine](#), and [the Bay Foundation](#)), and for boating community events. In 2021, a series of exhibits about MPA science, recreation, and fishing were created for shared partner use.

8

Exhibits developed



Posters

CMSF developed 4 [posters](#) to showcase MPA network benefits. Posters have been distributed to ocean recreation businesses, interpretive centers, and assembly members.

2,362

Posters distributed



Scripted Presentation Materials

CMSF developed [county-specific presentations](#) for consumptive and non-consumptive groups. The PowerPoints include MPA information, recreation and volunteer opportunities, and common species.



28

Presentations available

Printed MPA Outreach Materials ctd.

Ocean Recreation Guides

CMSF developed [ocean recreation guidebooks](#) tailored for every coastal county. These waterproof guides offer insights into local MPAs, ocean recreation opportunities, and species identification.



13 Locations available
437 Guides distributed

Tribal Outreach Materials

At the outset, CMSF worked closely with many coastal Tribes to develop signs, posters, and slides. Our close relationship has allowed us to serve Tribal needs as they arise. ([Link](#))



Spanish Outreach Materials

CMSF worked with CDFW to translate content into Spanish for high priority sign locations. In addition, CMSF created exhibits and assisted with video development in Spanish. ([Link](#))



MPA Outreach & Toolkit Dissemination

CMSF disseminated toolkits of MPA materials for 3 years to bait & tackle shops, ocean recreation businesses, harbors, marinas, aquaria, interpretive outlets, NGOs, and Chambers of Commerce. Toolkits were tailored by geography, audience, and outlet type, providing frontline partners with valuable outreach resources.



Locations Reached:

2018: 287

2019: 525

2020: 575

MPA Social Media Campaign

CMSF developed a MPA social media campaign amplified around two hashtags: #CalifMPAs and #CaliforniaMPAs. Consumptive and non-consumptive audiences were targeted with directed communications in styles, channels, and formats identified as appealing. CMSF curated and shared content to partners widely. Success was overwhelming, with more posts made during the year-long campaign than in the 9 years prior.

3,411
Posts made using hashtags

4.9 million
Total content views

409
Hashtag users

1.1 million
Unique users reached

Video Series for Anglers

CMSF created a series of videos to enhance compliance and support of MPAs. Video topics include spillover, recovery of species, California Collaborative Fisheries Research Program (CCFRP) and youth anglers.



264,792
Anglers reached

Hosted Trainings & Presentations



Since 2008, CMSF has been delivering MPA trainings for docents, educators, ocean recreation businesses, State Parks, harbors, marinas and upon request.

21 Trainings for anglers

17 Interpretive trainings

29 Special request trainings

Programs

CMSF has developed a diversity of engaging public programs with key partners.

MPA Mobile Cart

A traveling MPA exhibit with brochures, maps, and kids activities. Docents bring the cart to popular events, educating the public.

Geocaching

CMSF hid 26 MPA geocaches with ocean themed treasures and information about local history and MPAs, allowing individuals to partake in a real-life treasure hunt, while learning about local MPAs.



Underwater Parks Ambassadors

This program of 14 trained volunteers assist MPA outreach efforts by serving as knowledgeable MPA stewards.

Facilitation & Support

Since MPA Network inception, CMSF has facilitated access to information and resources, and offered services to leverage partner efforts and build MPA capacity statewide.

> MPA Collaborative Network Involvement (CN):

CMSF served as an early advisor for strategic development of the MPA CN. In addition, CMSF held a co-chair role, and has provided ongoing support through meeting participation and close collaboration with CN staff. In the past, CMSF helped to coordinate some of the first network forums.

> Search Engine for MPA Materials

CMSF is often referred to as the Google “search engine” for California MPA materials, having curated a comprehensive online MPA library. CMSF is often the first place that local partners reach out for assistance for lessons learned, and ways to standardize. We also provide our insights on lessons learned, sensitivities to avoid, and ways to enhance review and approvals by the state.

> Partner Support

CMSF supports partners by printing, reprinting, & disseminating locally favored resources, and offers content review, and assistance for many projects like guided interpretive walks, treasure hunts, kids coloring books, and the Ocean Communicators Alliance Docent Handbooks.

> Grant Support and Administration:

CMSF helps manage grants for partners, offers writing and editing assistance, and fiscal sponsorship.

Events

CMSF attends many high value events, providing outreach to boating and fishing communities through panels, talks, and exhibits. CMSF supports Underwater Parks Day events annually supplying resources and connecting local partners.



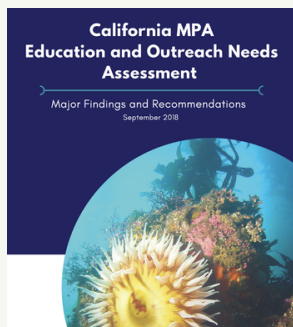
14 Events attended

12 Underwater Parks Day events supported

Key Finding

CMSF assumed an early role in efforts to understand the effectiveness of MPA education and outreach and subsequent needs. This was accomplished through a number of studies that looked to popular coastal user groups to understand needs and evaluate the success and impact of investments to date.

MPA Education & Outreach Needs Assessment (2018)



In 2018, CMSF initiated an in-depth needs assessment to detect discrepancies between expectations and current offerings for MPA outreach. This allowed for identification of priority needs, problems, and opportunities to fill remaining gaps. Surveys, and interviews were conducted, and input was received from hundreds of individuals. Results allowed CMSF to identify important outstanding priority issues and needs for MPA Education & Outreach.

[View the report here.](#)

MPA Education & Outreach Tool Evaluation (2021)

CMSF conducted the first commissioned evaluation to assess the efficacy of select outreach tools (PowerPoints, regulatory brochures and the MPA social media campaign) for increasing awareness of MPAs among primary coastal user groups. The evaluation results provide a better understanding of success of outreach efforts and can be used to inform future outreach endeavors.

Resource Utility for Increasing MPA Awareness

Brochures



44%

of anglers felt the brochure is useful



63%

of ocean recreationists felt the brochure is useful



77%

of enforcement officials felt the brochure is useful

PowerPoints



75%

of anglers felt it is useful



63%

of ocean recreationists felt it is useful

For detailed findings and recommendations, [view the report here.](#)

Key Takeaways

- Similar recommendations for improvement across tools.
- Different user groups have distinctive opinions about outreach tool utility.
- Needs of enforcement officials differ from other audiences.
- Understanding audience specific needs is imperative for successful communications.

Enforcement & Compliance

Key Finding

CMSF has partnered with RLF and NOAA's Channel Islands National Marine Sanctuary (CINMS) to pilot and maintain technologies that support and inform the efforts of CDFW and other allied enforcement agencies working to protect MPAs and other marine resources throughout the state.

Marine Monitor (M2)

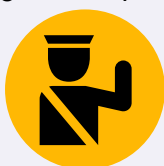
Access to data on vessel movement transiting California's coastal waters is limited, and researchers, agencies, and other partners are actively seeking new tools and technologies to understand spatial and temporal nature of human activity off of the coast of California to enhance public safety and conservation. Since 2015, CMSF and a collaboration of scientists, agency partners, and nonprofits have piloted shore-based monitoring systems, known as Marine Monitor (M2), to test the autonomous remote sensing system's ability to observe, track, and analyze vessel data in nearshore areas of interest along the coast and including specific state MPAs.



Timothy Thie / NPS

electronic Fisheries Information Network System (eFINS)

Since 2017 - in partnership with CDFW Law Enforcement Division Marine Enforcement District - CMSF, RLF, and CINMS have constructed, tested, and maintained a mobile data collection and sharing application (app) known as electronic Fisheries Information Network System (eFINS). Participating officers from CDFW, partner agencies, and NPS use the eFINS app to create geospatial records associated with on the water contacts during marine patrols.



115

Wardens & officers
have used eFINS



4,525

Records logged
since 2017

CHALLENGES

- CMSF embarked on MPA education and outreach prior to the existence of many resources, offering an opportunity to standardize and design templates that could be repurposed.
- Building trust and relationships within various audience groups takes time, but has proven invaluable.
- Climate signals in marine environments may be stronger than MPA signals, impacting solutions, messaging, attention and outreach.
- Staff turnover, loss of institutional memory, and ever-evolving stressors to the marine environment make outreach and education repetitive, constant and dynamic.
- Due to the pandemic, CMSF adapted outreach and dissemination to account for social distancing, stay at home orders, and business closures.



KNOWLEDGE GAPS & RECOMMENDATIONS



Increase MPA Science Communications

Most audiences lack an understanding of the science behind MPAs. A clear next step is to fund translation of science, stories and insights into visually appealing, engaging, and simple infographics to support a targeted outreach campaign.



Use Audience-Preferred Channels for Communication

Coastal users must be engaged through their preferred and frequented communication networks (anglers: fishing clubs, social media channels, magazines, online forums, podcasts; public: social media, local magazines, Chambers of Commerce). A clear next step is to fund outreach to strategic channels, enabling delivery of content to mainstream media outlets.



Solicit Input from Key Audiences

CMSF recommends determining your target audience and working in collaboration to develop materials ideal for that user group. MPA education & outreach is not one size fits all and must be informed by each user group for development of effective resources.



Consistent Evaluation of Needs & Resource Effectiveness

There is a clear need to evaluate effectiveness of products and programs so limited resources can be wisely allocated. We recommend implementing metrics of success for outreach programs and assessing knowledge gaps for different audiences immediately to inform revision and development of new tools.



Endorse a Resource for MPA Boundary Identification

An easier mechanism for MPA boundary identification when cellular service is not available is needed. This resource should be free and easy to navigate.



Disseminate MPA Toolkits Annually

Dissemination of MPA resources is needed on an ongoing basis. We recommend distributing MPA toolkits to high value locations, tracking inventory and use, and modifying resources routinely based on target-audience feedback. A clear next step is to review high-priority, existing materials with input from different user groups, update, print, and distribute materials.



Deliver MPA Trainings & Webinars for Key Audiences

CMSF recommends initiating an ongoing MPA training program using existing slide decks. A clear next step is a statewide initiative to collaborate with local businesses and clubs, facilitating two-way dialogue and clarification of misconceptions. We also suggest recording an online training for every county to make available on demand.



Maintain Outreach through Social Media Platforms

CMSF's MPA social media campaign was an outstanding success, due to input, collaboration and partnership with hundreds of partners. It remains crucial to amplify, support, and continue the MPA social media campaign. We suggest continuation of public engagement campaign and provision of curated content for partners.

CONCLUSION

Great strides in MPA education and outreach have been made over the past decade, with considerable progress designing outreach materials and programs. However, much remains to be done, particularly to reach consumptive and non-consumptive coastal users. Next steps recommended by CMSF are to focus on strategic audiences who frequent MPAs: recreational angling, boating and ocean recreation (kayaking, SCUBA, surfing) communities. Before developing materials, CMSF recommends determining the needs of the target audience and working with them to develop resources useful for that specific user group and identify appropriate channels of dissemination. MPA outreach is not one size fits all, and requires evaluation to ascertain if the resource being created meets intended goals. Adjustments should be informed by the user group to ensure more effective resources.

Over the past 15 years, CMSF has played a critical leadership role statewide in MPA education and outreach, and are proud of all we have collectively accomplished. CMSF is uniquely poised to build on past successes, filling crucial gaps in a few key areas in collaboration with individual audiences. CMSF's role as a leader and a trusted partner within the boating, fishing and ocean recreation communities positions us as strong candidates to help broker trust and dialogue as we move towards the MPA Decadal Management Review. CMSF stands ready to support the state in any way we can.



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