

Marine Protected Area Collaborative Network: Fostering Local Stewardship in Marine Resource Management MPA Decadal Management Review Key Partner Report

About this Report:

Due to the unique structure and function of the Marine Protected Area (MPA) Collaborative Network (CN), this report follows an adapted California Department of Fish and Wildlife (CDFW) report template. Throughout the report, when discussing the staffed, umbrella organization that supports the efforts of the collaboratives, we will use the term “CN.” When focusing on the 14 distinct, county-based community groups, we will use the term “collaboratives.” When referencing both the CN and the collaboratives, we will use the term “Collaborative Network.” All report graphics can be viewed on our website at the embedded links and in the appendices.

Note: The Collaborative Network is comprised of diverse voices with a variety of perspectives. While we did our best to represent the breadth of our membership through collaborative input via survey and meetings, outside studies, and the convening of a Decadal Management Review Working Group, we acknowledge that this report still represents the views of a subset of the Collaborative Network.



Overview of MPA Collaborative Network

The mission of the [Marine Protected Area \(MPA\) Collaborative Network](#) is to empower coastal communities to advance MPA management and encourage ocean stewardship. The CN is a fiscally sponsored project of [Resources Legacy Fund](#) (RLF). While supported by several organizations and grants, RLF and the [Ocean Protection Council](#) (OPC) are the primary funders of the Collaborative Network.

After a stakeholder-led public process created a world-class system of 124 MPAs in 2012, Collaborative Network Founder and Director, Calla Allison, worked with OPC and the [California Department of Fish and Wildlife](#) (CDFW) to ensure local stakeholders would continue to have a voice in the management of their MPAs. Building off a model established in Orange County in 2001, Calla Allison worked with diverse community members, landowners, agencies, and Tribal governments to facilitate the development of 14 collaboratives covering each of California's coastal counties from Del Norte to San Diego. Fully established by 2014, this network of collaboratives is thriving today. Collaborative members are engaged in all four MPA Management Program pillars: 1) Education and Outreach, 2) Research and Monitoring, 3) Enforcement and Compliance, and 4) Policy and Permitting. For more information, see Appendix A or the [Collaborative Network Timeline](#).

The Collaborative Network's [purpose](#), defined during the CN's 2017 strategic planning process, is to create a cooperative process that encourages participation in MPA decision making and communication that is grounded in the values of respect for differences and the interconnection between humans and nature. The Collaborative Network is purposely structured as a "network of networks" with over 1,400 volunteer members in 14 local collaboratives representing hundreds of distinct and diverse organizations, agencies, individuals, interests, and backgrounds. Collaborative members come from all sectors, including non-governmental organizations, fishing clubs, commercial fishing, Tribes, municipalities, county, state, and federal agencies, science, education, aquaria, museums, ocean businesses, community members, students, academic institutions, consulting firms, and more. The CN believes that by encouraging diverse and robust civic engagement in local resource management, we can ensure the health and sustainability of our natural and social environments, particularly centered around MPAs. For more information, see Appendix A or the [Collaborative Network At a Glance graphic](#).

How the Collaborative Network Supports MPA Management

The CN believes that effective management of MPAs is only as strong as the support and involvement of community members and on-the-ground partners. The Collaborative Network consolidates and streamlines that involvement into an innovative model where bottom-up and top-down resource management meet. The State of California has officially recognized the value of this model in the "[Memorandum of Understanding to Advance Management of California's Marine Protected Area Network](#)." The CN, as the staff structure of the Collaborative Network, is a member of the [MPA Statewide Leadership Team](#) (MSLT), where it bridges the gap between local communities and the state and federal managing agencies. For more information, see Appendix A or the [Input/Action graphic](#).

A [study by Blue Earth Consultants](#) found that the [Orange County MPA Council](#) (OCMPAC) contributed in-kind support to Orange County MPA management worth over four million dollars during a two year time frame (Jacobsen, K. et al., 2019). Statewide, the estimated \$20 million annually of in-kind resources and volunteer efforts the collaboratives provide adds significant support to agency MPA managers. The CN continues to share its success and lessons learned broadly with other states and nations by giving presentations directly to resource managers in Oregon, British Columbia, Hawai'i, Capitol Hill Ocean Week, and beyond. In 2019, the Collaborative Network was recognized by the [North American Marine Protected Area Network](#) (NAMPAN) as a specific solution to MPA management challenges and a model for inter-jurisdictional cooperation.

Collaborative Network Accomplishments

Thousands of hours have been dedicated to collaboration fostered by the CN and 100% of CN staff time is dedicated to supporting MPA management. The numbers shared below are calculated based on available documentation from late 2012 to 2022 and only scratch the surface of the full scope of work completed by the CN. For more information, see the Appendix A or the [What We Do graphic](#). In summary, the CN has hosted, facilitated, or attended at least:

- 920+ collaborative and MPA management meetings/events
- 100+ meetings with Tribal members and representatives
- 12 regional or statewide forums with hundreds of participants
- 16 special topic events and statewide working groups
- 1,444 newsletter subscribers; 25 newsletters sent with monthly email updates
- 3,000+ total social media followers across platforms
- 25,371 website users and 42,544 page views in 2021; 458 blog posts; online forum and project library
- 56+ presentations inside and outside of California to share the CN model

Members have noted a variety of benefits of being involved in the Collaborative Network, such as the forum it provides for communication, building partnerships, elevating local interests, increasing visibility of individual organizations, and improving access to information among communities, across county lines, and with state and federal managing agencies. For more information, see Appendix B or [Testimonial's graphic](#).

Moving Forward: Clarifying the Role and Value of the Collaborative Network

Acting as the communication hub across a large network, as well as between on-the-ground actors and state level managers, is both a vital service to MPA management and an ongoing source of challenges (see Appendix C for more information on challenges facing [Landscape Scale Stewardship Networks](#) and challenges caused by the [COVID-19 Pandemic](#)). There is often a misunderstanding of the role of the CN as a conduit for information sharing vis-à-vis CDFW as a managing agency and the Fish and Game Commission as a regulatory body. While the Collaborative Network was not completely formed until two years after MPA network implementation was complete, actions of the state during the designation process and immediately after implementation are sometimes confounded with the development of the Collaborative Network. Related but external programs such as [MPA Watch](#) and activities of statewide partners such as the [California Marine Sanctuary Foundation](#) are also often conflated with collaborative activities. In addition to the need to clarify the unique role and benefit of collaborative involvement, collaboratives face distinct challenges as volunteer-led community-based organizations with limited to no funding for administrative support. Moving forward, it would be beneficial for CDFW to continue communicating the unique role of the CN and the value that the collaboratives bring to MPA management. Expanding state recognition and financial support of both locally driven projects and the umbrella support structure itself will ensure that CDFW continues to benefit from local expertise, partner resources, and broad stakeholder involvement in MPA management.

Highlights and Key Findings

The Collaborative Network is well positioned to assist CDFW in meeting each of the six [Marine Life Protection Act](#) (MLPA) goals by providing an agile and localized structure to engage participation in MPA management. The CN identifies knowledge and management gaps, works with the state to address the gaps at the local level, and advances adaptative management informed by local expertise. The Collaborative Network was formed to address the high priority, locally relevant goals that the state alone could not address.

Collaboratives have accomplished many diverse projects over the years (see examples in Appendix D or Collaborative Accomplishments graphics for [North](#), [Central](#), and [South Coast](#)). The [Collaborative Network website](#) also provides a more comprehensive picture of each collaborative's achievements. While many of the challenges that arose in the beginning of MPA network implementation are still present in some form today, significant progress has been made across all four pillars of MPA management (see Appendix E for examples of actions taken towards resolution). One major challenge has been resolved: A structure now exists for local communities to engage with and contribute to MPA management through the Collaborative Network.

Management Pillar One - Education and Outreach

The Role of the Collaborative Network in Education and Outreach

Education and Outreach has been the primary pillar to which the collaboratives have contributed over the past ten years. [A 2006 study](#) estimates annual California beach visitation ranges from 150 million to more than 378 million visits (Pendleton et al., 2006). The state cannot possibly reach every visitor and monitor every beach. Collaboratives and their member organizations provide incredible support through their education, outreach, and ambassador programs that feature MPA information. Due to the nimble and fast-acting nature of collaboratives, they were especially instrumental in the initial years after implementation, providing locally

relevant, on-the-ground education and outreach quickly and efficiently. For example, Orange County members applied stickers with the new MPA regulations to all existing access signs for the Laguna Beach State Marine Reserve on January 1, 2012 - the day the South Coast MPA regulations went into effect. Members were on the coastal front lines during the COVID pandemic, working closely with CDFW and other partners to provide education and outreach to the massive increase of coastal visitors, focusing on highly impacted tidepool areas in Marin, San Mateo, Monterey, Orange County, Los Angeles, and San Diego. The two most notable ways the Collaborative Network adds value to MPA education and outreach are summarized below.

1. Creation of Locally Focused Products that Reflect a Variety of Constituent Concerns

Collaboratives fill education and outreach gaps by creating or adding area and community specific information to MPA products and programs. These materials are collectively developed by members from diverse sectors, resulting in more inclusive and relevant resources with a broader reach. Input from Tribal and fishing representatives is invaluable. The [“Tribal Traditions in MPAs”](#) videos developed by North Coast collaboratives illustrate the important connections the Tolowa Dee-ni’ Nation and Kashia Band of Pomo Indians have to the marine and coastal environment. MPA regulatory signage for State Marine Reserves (SMRs) initially only featured “no fishing” text and imagery until a San Diego County Collaborative member from the fishing community suggested that “no collecting” text and imagery also be added, as fishing is not the only type of take. Collaboratives have hosted, facilitated, or contributed to countless virtual and in-person outreach events to help share MPA messaging far and wide, including the Honor the Ocean community events in Los Angeles, Kid’s Ocean Day in Humboldt, and Get Into Your Sanctuary events around Monterey Bay. By providing a forum for diverse sectors to work together, [National Marine Sanctuaries](#), wildlife disturbance, and invasive species prevention messaging can be incorporated into MPA education and outreach products. For example, in 2021, the CN integrated MPA messaging into the [Respect Wildlife](#) campaign, resulting in a graphic about harmful tidepooling practices, a top concern from CN hosted Community Compliance Forums.

2. Leveraging Knowledge and Resources for Consistent and Effective Product Creation and Distribution

Collaboratives allow for members to leverage each other’s local knowledge and resources while also connecting to organizations conducting larger scale outreach, such as the [California Marine Sanctuary Foundation](#) (CMSF) and the [California State Parks PORTS Program](#). Collaboratives work closely with state managing agencies on the review and approval of locally relevant products, ensuring consistency in messaging and broader public recognition of MPA materials. Collaboratives utilize the power of the network to provide streamlined distribution of materials statewide, including identification of appropriate sign templates and installation requirements. Materials shared with each collaborative can be further distributed through individual member organizations, landowners, partners, and connections to the local community.

Accomplishments in Education and Outreach

Some of the collaborative created [education and outreach projects](#) are listed below. For more information, see Appendix E or the [Education and Outreach Highlights graphic](#). Collaboratives have successfully produced or provided:

- 126+ educational programs with MPA information
- 55+ MPA outreach and education resources, including:
 - 13 brochures
 - 13 videos
 - 9 K-12 standards-aligned lessons
 - 5 educational toolkits/mobile carts
 - 5 kids’ activity books
 - 3 online and digital resources
 - 3 speaker/docent trainings
 - 8 exhibits/posters
- 6 sign templates
- Hundreds of thousands of resources distributed through collaboratives into their communities
- Hundreds of events hosted or attended
- Hundreds of signs installed
- 27 Trident mini-remotely operated vehicles (ROVs) for use in education and outreach programs
- 273,092+ impressions/reach/views and 16,656+ shares/comments/reactions/likes on 2021 Respect Wildlife campaign content
- 56 [compliance-focused projects](#) by collaboratives and the CN, 2021-22

Challenges in Education and Outreach

While the power of the network is instrumental for distributing resources and delivering programs throughout the state, it also presents challenges in tracking distribution and use, measuring effectiveness and quantifying reach. The unique on-the-ground local needs of a collaborative can sometimes conflict with the state's goals to manage the MPAs as a statewide network. Most importantly, there are remaining barriers to developing accessible, inclusive, and equitable education and outreach programs and products.

1. Tracking, Evaluating, and Quantifying

Volunteer members have limits to how much they can be involved, varying technological abilities and preferences, and organizational styles that make it difficult to accurately track where materials go, how effective they are, and how many people have been reached. These challenges are compounded by short grant timelines and a lack of long-term funding. The CN has worked with collaboratives to test various methods of tracking material distribution by providing hands-on project management support and structure. Quantifying reach of MPA messaging is a daunting task with hundreds of organizational partners across 14 collaboratives, each offering a variety of programs and products that feature MPA messaging. When asked to estimate reach over the last 10 years, answers ranged from “too hard to answer” to “hundreds” to “hundreds of thousands”.

2. Balancing Local Interests with State Agency Messaging

Maintaining statewide consistency in education and outreach efforts while allowing for local tailoring requires careful balancing. MPA messaging is often complicated and hard for the public to understand. Competing messages from related concepts such as [National Marine Sanctuaries](#), [30x30 efforts](#), and other protected areas such as parks and ecological reserves creates confusion among partners and stakeholders.

3. Barriers to Community Engagement and Access

According to [U.S. Census QuickFacts California](#), 44.2% of California's population speaks a language other than English at home. While a few materials have been translated into Spanish and other languages, the vast majority of MPA education and outreach materials are only available in English. Collaboratives are continuing to work to develop community informed translations of materials that consider differences in cultures and the nuances of regional dialects. These efforts will rely on CDFW to develop an internal process for reviewing and translating materials. Due to a general reluctance of funders and managers to trial new or experimental forms of education and outreach projects, it has been challenging to reach and engage new audiences. This challenge is exacerbated by the lack of time and resources for meeting new communities where they are, both for current collaborative members and the communities with which they are trying to establish partnerships.

Knowledge/Management Gaps in Education and Outreach

The following is needed for more effective and impactful MPA messaging:

- Clear guidance or action plans to reach and engage diverse local communities through education and outreach, including a process for getting materials and messages translated and vetted by communities, and a Tribally driven process for including Tribal information and compensating Tribal members for their time spent developing this information.
- Summarized and simplified results of the science of MPAs and overview of California MPA effectiveness to be used in outreach materials.
- A universally accepted method for tracking, evaluating, and quantifying reach of outreach efforts.
- North, Central, and South Coast regional MPA maps that align with collaborative regions and do not divide county lines. (More information on collaborative regions can be found in Appendix D).

Goals for the Future of Education and Outreach

- Increase awareness of California's MPAs broadly and with diverse audiences through understandable, friendly, and aesthetically pleasing signage and other forms of creative and multilingual outreach and engagement.
- Increase community awareness of MPAs and collaboratives through direct education, such as more vessel-based outreach, tidepool docent programs, and classroom visits.

- Better integrate MPA concepts, including information about federal and state MPAs, into messages about other ocean issues (e.g., climate change) to garner broader support for the MPA network.
- Identify achievable ways of evaluating effectiveness and quantifying reach.

Management Pillar Two - Research and Monitoring

The Role of the Collaborative Network in Research and Monitoring

The collaboratives primarily support research and monitoring through participation in Community and Citizen Science (CCS) programs and by serving as a forum for sharing, integration, and collaboration among researchers and other stakeholders. Future projects and initiatives will likely focus on projects that support and facilitate transparent communication about ongoing MPA monitoring. The main ways the Collaborative Network engages in research and monitoring are outlined below. For more information, see Appendix E or the [Research and Monitoring Highlights graphic](#).

1. Supporting Community and Citizen Science (CCS)

Collaboratives were integral to the launch and continuation of the annual [Snapshot Cal Coast](#) bioblitz. Beyond participation in the intertidal bioblitz, the CN was selected as an [AGU Thriving Earth Exchange](#) project and is currently working with a community science fellow to [develop a protocol/platform](#) to contribute subtidal biodiversity data from underwater videos to [iNaturalist](#) and Snapshot Cal Coast. The Trident mini-ROVs provided to each collaborative as a shared resource for members through the CN's mini-ROV program will be part of an effort to expand Snapshot into the subtidal zone, as well as continuing to be a resource members can use in their own projects. The CN also continues to support and promote the expansion and cross-communication of other CCS programs, such as [MPA Watch](#) and [Beach Watch](#) that collect human use data, [Reef Check](#) that trains recreational divers for underwater surveys, the Pacific Plankton Program that trains students and community members to monitor plankton levels, California Coastal Cleanup Day that harnesses the power of volunteers to pick up and track trash, and the [California Collaborative Fisheries Research Program](#) (CCFRP) that utilizes the expertise of recreational fishers in MPA monitoring.

2. Providing a Forum for Sharing, Integration, and Collaboration

Collaborative members conduct important research and monitoring in addition to the [state funded monitoring programs](#) that contribute to adaptive MPA management. The first comprehensive and collaborative marine ecosystem monitoring program was developed by the [Tolowa Dee-ni' Nation](#), in partnership with [Humboldt State University](#) researchers, with multiple ongoing monitoring projects. Enlightening [studies](#) have been conducted in Orange County tidepools on the impacts of trampling and education programs on the ecosystem. The [Channel Islands National Park](#) has collected decades of data used to inform MPA implementation and ongoing management. These are just a few examples of the work collaborative members are doing.

Researchers connect their work to MPA education and outreach efforts through collaborative projects. Collaboratives have hosted research symposia to share research conducted by members and provide networking opportunities for students. MPA management is often furthered through non-MPA focused efforts as well, such as ocean and coastal CCS programs and marine mammal/wildlife research and monitoring programs. Science and academia members present findings, get input, and share opportunities to integrate MPA messaging into their programs through the collaboratives.

The CN provides a statewide forum for elevating research and monitoring concerns heard throughout the network to state managing agencies. For example, the CN has hosted many topic specific meetings or working groups, such as the CN's Statewide Estuary Working Group and a discussion with CDFW on kelp and MPAs, offering Tribes and stakeholders a chance to connect directly with state agencies and each other.

Accomplishments in Research and Monitoring

Some of the collaborative created or facilitated research and monitoring projects are highlighted below.

- Native American MPA Watch programs implemented at False Klamath Cove, resulting in peer reviewed and published [journal article on North Coast beach usage](#) and two MPA Watch sites established by the Tolowa Dee-ni' Nation at Pyramid Point.
- 100% of MPA Watch participating organizations are also collaborative co-chairs or members.

- 100% continued collaborative participation in Snapshot Cal Coast with two or more bioblitz events held in each coastal county in its inaugural year.
- 53% of CN mini-ROV users currently use them for research, general surveys, or exploration (the other 47% use them for educational programming or training/testing).
- One Orange County MPA Council research symposia has been held with another pending.
- 16 statewide topical working groups or information meetings with researchers and managers have been facilitated by the CN.
- Collaborative members have noted how instrumental MPA baseline and other monitoring data has been in the 2015 and 2021 southern California oil spill responses.

Challenges in Research and Monitoring

While the CN and collaboratives have not been heavily involved in state funded research and monitoring, we are often the first stop for stakeholders and Tribal members who have concerns or are seeking information on MPA effectiveness. Primarily, we hear that there needs to be more transparency with the local communities about when and where research is occurring and who is conducting research. Transparent and open communication is especially important to local managers trying to maintain consistent messaging to the public as well as to the stakeholders and Tribal members who feel that their science was not appropriately included in the designation process and continues to be devalued by state managers. In this second case, an acknowledgement of past missteps in this management pillar and a concerted effort from the state to increase inclusion and transparency of results would go a long way to improving relationships with partners.

1. Transparency with Local Community

The CN has fielded concerns from collaboratives up and down the coast that there is no clear communication channel or notification system for when and where research and monitoring is being done and who is doing the research. Local and statewide managers, landowners, concerned stakeholders, and other partners are unaware of when to expect researchers in their local MPAs. This causes confusion and frustration when they observe people, who may not be properly identified, collecting or performing other experiments. Concerned community members often mistake researchers for poachers and report them to [CalTIP](#) or call local compliance officers to make contact, wasting time and resources. Many local jurisdictions or allied agencies, such as County and State Parks, have their own research permit processes in addition to CDFW's [Scientific Collecting Permit](#) (SCP) and would appreciate a list of CDFW permitted researchers in order to reach out to ensure compliance with local regulations on their property.

2. Lack of Engagement and Inclusion

A perceived lack of inclusion in the MPA research and monitoring processes continues to affect relationships with stakeholders and Tribal members. Collaborative members from the research, diving, and fishing communities, as well as Tribal partners and governments, have shared that they continue to feel disenfranchised by the science selection process and would like to be included or engaged in future monitoring efforts. Researchers who are not state funded through long-term monitoring projects often feel excluded and seek pathways for sharing their results to inform MPA adaptive management. While CCS programs like CCFRP and Reef Check provide two examples of valuable structures for fishers and divers to contribute to MPA monitoring, there needs to be more opportunities and transparency in the CCS selection process. More outreach to and engagement of collaborative, community, and Tribal members in research and monitoring would not only go a long way to fostering trust with the managing agency, but it might also help broaden the capacity of CDFW to assess what is happening in our MPAs and determine if they are truly functioning as intended.

3. Difficult to Find or Access Monitoring Results

The CN is often asked by stakeholders for help finding research and monitoring results for specific MPAs or the MPA network as a whole. While there are some locally focused research papers published by independent researchers (not part of the long-term monitoring state funded programs), there is a lack of easily accessible and understandable MPA monitoring and research results. Collaborative members and partners are especially interested in research and data for individual MPAs and regions, perhaps that be accessed through a clickable map. The CN can continue to play an important role in helping to make this research accessible and digestible.

Knowledge/Management Gaps in Research and Monitoring

- A map of specific research and monitoring locations and database of site or regional specific results.
- A communication/notification process for when research is occurring to inform local managers, compliance officers, and educators.

Goals for the Future of Research and Monitoring

- Improve access and inclusivity in research and academia, particularly to center Tribally led science and monitoring.
- Increase opportunities for the fishing and diving community to participate in monitoring projects, including more vessel-based on-water monitoring, such as [CCFRP](#) and [Marine Applied Research and Exploration \(MARE\)](#).
- More use of CCS to monitor and assess habitats, human uses, and broader human dimensions of MPAs, including more MPA Watch sites and beach use data for northern California.
- Work with CDFW to increase transparency about how research and monitoring data are acquired and used as well as requiring researchers to be identifiable in the field.
- Initiate research projects that address needs identified by managers and policy makers, as well as local stakeholders, such as Dungeness crab, sea urchin, other invertebrates, and kelp.
- Increased publication of collaborative and locally based programs into academic journals.
- Continue to connect partners who work in this space with each other and state managers.
- Increase the use of technology for CCS monitoring of MPAs.

Management Pillar Three – Enforcement and Compliance

The Role of the Collaborative Network in Enforcement and Compliance

The Enforcement and Compliance pillar is supported by the CN through the facilitation of on-the-ground partnerships, inter-agency communications, and leveraging of existing resources, including enforcement personnel hours for patrol and non-profit boat hours for community-based compliance. The CN holds MPA trainings for officers, documents MPA compliance metrics, and elevates compliance issues through our involvement in the MSLT. The CN's current Compliance Initiative is supported by OPC Once-Through Cooling Mitigation funds, and conducted in partnership with CDFW, [California District Attorneys Association \(CDAA\)](#), and RLF. The Compliance Initiative includes MPA violation data collection from MPA enforcement partners in southern California, MPA trainings for enforcement partners, community compliance forums and their associated compliance projects, and a District Attorney MPA training and Task Force. The CN also participates in regular meetings with agencies, non-governmental organizations (NGOs), and district attorneys to discuss statewide MPA compliance and enforcement topics and is listed as a lead or facilitating organization for many of the enforcement objectives listed in the [MSLT workplan](#). The main roles of the CN in enforcement and compliance are outlined below. For more information, see Appendix E or the [Enforcement and Compliance Highlights graphic](#).

1. Facilitation of Interagency Communication

The CN regularly facilitates crosstalk and collaboration between agencies to share challenges and improve compliance in the field. In areas such as the City of Rancho Palos Verdes, Marin, and Pacific Grove, the CN staff is helping collaborative members discuss options for increasing MPA cite authority among local enforcement personnel. While those discussions are underway, the CN staff connects partners who do not have the ability to cite MPA violations with citing officers for increased compliance. For example, after connecting non-citing County Park Rangers with State Parks Peace Officers for a coordinated effort to patrol San Elijo Lagoon State Marine Conservation Area (SMCA), County Rangers have reported significantly fewer MPA violations. In addition, the CN helps connect and share the value of community-based compliance liaisons. Liaisons such as [Los Angeles Waterkeeper](#), [WILDCOAST](#), and [Santa Barbara Channelkeeper](#) support local enforcement efforts by developing relationships with officers and community members, serving as consistent eyes on the coast, and reporting MPA violations to CalTIP.

2. Collection of MPA Compliance Data

The CN is continuing to work with enforcement officers and management partners across the state to collect MPA data such as violations observed, contacts made, and citations written in MPAs. These data

provide important context on MPA violations and compliance actions that support [CDFW Law Enforcement Division](#) (LED), increase capacity for improving awareness and compliance, and help inform MPA trainings for officers as well as future collaborative projects. Technology helps LED and enforcement partners determine, track, cite, and prosecute MPA violations. Some examples include the [ProtectedSeas](#) marine monitor [M2 radar](#) systems, and enforcement action tracking apps. The CN has helped RLF pilot the eFINS app (electronic Fisheries Interagency Network System) with the [City of San Diego Lifeguards](#) and the Watchtower app for tracking enforcement related contacts at [Crystal Cove State Park](#). Some highlights of data collection results from South Coast enforcement partners include the following:

- 25+ distinct agencies and enforcement partners collect and share MPA contacts with the CN.
- [50 MPAs and 2 Special Closures](#), covering 356 square miles, are patrolled by enforcement partners.
- Enforcement partner officers spend an estimated 50,000 hours annually patrolling MPAs in their jurisdiction.

Highlighted efforts from select enforcement partners:

- [California State Parks - San Diego Coast District](#) and [City of Encinitas](#) Department of Marine Safety combined made over 15,000 general contacts in Swami's SMCA and reported over 1,400 MPA violations in 2021.
- [City of Laguna Beach](#) Lifeguards have made an average of 40,000 MPA related contacts per year since the implementation of the Laguna Beach SMR and No-Take SMCA.
- [City of Newport Beach](#) Police and Animal Services wrote 25 MPA citations in 2021 for violations in the Crystal Cove SMCA.
- [City of Rancho Palos Verdes](#) rangers, aided by LA Waterkeeper for boat-based outreach, made 240 educational contacts for 182 reported violations in Abalone Cove SMCA in 2021.
- [Channel Islands National Park](#) rangers made 111 MPA related contacts and wrote 66 MPA-specific infractions in 2020, including seven Special Closure violations.

3. Hosting of MPA Trainings for Enforcement Partners

The CN has worked closely with CDFW to organize and facilitate locally specific MPA trainings for officers since 2007. Participating agencies include but are not limited to State Park Officers, County Sheriffs, City Police, National Park Rangers, Tribal Police, Bureau of Land Management Rangers, U.S. Coast Guard, Marine Safety Officers, NOAA Office of Law Enforcement, Harbor Patrol, County Rangers, and more. The trainings include discussions with local wildlife officers, the science of MPAs (by CDFW Environmental Scientists), local MPA regulations and boundaries, access points, a local District Attorney perspective on the prosecution of MPA violations, and other locally relevant presentations about topics like Tribal exemptions, MPA Watch, wildlife disturbance, and enforcement technologies. The trainings not only provide useful information for officers and other attendees but serve as a networking opportunity for agencies interested in mutual aid response. Specialized trainings have also been organized for the City of San Diego Lifeguards to kick off a MPA offshore patrol program for five of the San Diego County MPAs. Trainings hosted or facilitated by CN staff are listed below:

- Four trainings for Orange County prior to network implementation, 2007 to 2012
- 14 trainings, from 2015 to 2016, covering each coastal county
 - 373 total participants from 122 different agencies and 200+ officers with cite authority trained
 - 14 different County District and City Attorney's officers attended
- Seven trainings (Orange County, San Diego, San Mateo, Mendocino, Catalina Island, Los Angeles, and San Luis Obispo), 2019 to present
 - 277+ officers/uniformed personnel trained from 80 distinct agencies/departments
 - 150+ officers estimated to be trained in 2022
- Five specialized trainings for City of San Diego Lifeguards, 2021
 - 60 lifeguards trained

4. Creation of MPA Officer Training and Reference Guides

With CDFW and enforcement partner input and review, the CN has created county specific MPA Officer Training and Reference Guides for distribution at the MPA trainings. The CN has contracted a licensed land surveyor to survey the boundary lines of MPAs in the field and insert the MPA boundary line onto a

photograph. This gives officers a “street view” of the boundaries, allowing officers to identify shore-based landmarks and visualize how the angle extends offshore. These images are included in the guides and have been reviewed by the MPA District Attorney Task Force. Due to the consistent positive feedback received, funds have been requested to print additional guides for enforcement partners. Highlights are outlined below:

- Printed and distributed approximately 430 officer reference guides in 2019-2021.
- Enforcement partners requested an additional 100+ officer reference guides.
- Produced 350 surveyed images of boundary lines.
- Completed over 550 hours of surveying and photographing boundaries and access points.

5. Facilitation of Community Compliance Forums & Compliance Projects

The CN hosted 15 Community Compliance Forums (2019-20) to address local compliance concerns and generate community-led solutions. Reports on all forums as well as a statewide summary can be found in the [Collaborative Network Project Library](#). Forum results have been shared with the MSLT and continue to inform our ongoing compliance projects, grant proposals, and a future signage improvement project.

- Over 500 community members participated in the compliance forums.
- Over 2,200 compliance concerns and solutions were mentioned and recorded.
- 56 total compliance projects were funded by OPC and RLF to address compliance concerns raised during the forums.

6. Participation in Prosecutor Training and Task Force

Working with the CDAA, CDFW, and RLF, a MPA training for CDAA members was held in May 2021 for California District and City Attorneys. This training introduced and initiated the formation of a MPA District Attorney (DA) Task Force. The goal of the MPA DA Task Force is to increase the awareness of and ensure consistency in the prosecution of MPA violations. Over 50 prosecutors and court officers are now trained in MPA violation prosecution and are engaged in increasing MPA compliance through the MPA Task Force, collaborative meetings, and MPA enforcement trainings. The CN participates at the beginning of each Task Force meeting to provide updates from collaborative meetings and enforcement trainings to inform later discussions.

Challenges in Enforcement and Compliance

It can be challenging to convince local enforcement partners to assist with enforcing MPAs as it tends to be outside of what they consider their expertise. When they do enforce MPA regulations, it is often hard to separate those MPA contacts and citations from their other enforcement actions for MPA data tracking. Connecting, training, and developing relationships with enforcement partners for consistent reporting takes time. There are often competing priorities (e.g., public safety) for agencies and high staff turnover, necessitating regular repeated training. Getting buy-in up the chain from CDFW LED, agency leadership, supervisors, chiefs, captains, and other decision makers is also important.

The CN's current MPA compliance action dataset is South Coast focused due to the concerted efforts of the CN's South Coast Specialist. A more comprehensive, statewide dataset will be available soon with the onboarding a North Coast Specialist in February 2022. Challenges specific to enforcement and compliance also include the following:

- A large portion of MPAs are located in rural and remote coastal areas.
- There is a lack of CDFW officers available to address observed/reported violations, especially at night or early morning hours.
- There are millions of visitors to the coast which has had an overwhelming impact on all resources. This has been exacerbated during the COVID-19 pandemic.

Knowledge/Management Gaps in Enforcement and Compliance

- There is a need to engage and solicit the participation of more Central and North Coast enforcement agencies to report their violations and compliance actions data.
- The connection between MPA compliance action data and other datasets (e.g., human uses, oceanic/coastal conditions, outreach efforts) is missing; overlaying these datasets could provide insights into noncompliance.

- More funding is needed to increase the capacity of local enforcement partners, such as State Parks coastal peace officers and Tribal police, to assist with MPA compliance on or adjacent to their property.
- There is a need to collect case disposition data from courts to determine whether MPA citations had any punitive effect.

Goals for the Future for Enforcement and Compliance

- Secure more funding for enforcement personnel, including for CDFW Wildlife Officers, State Parks officers, local managing/enforcement partners, and Tribal Police.
- Increase engagement with enforcement and management partners in order to receive consistent data.
- Strengthen connections between local enforcement partners for resource sharing.
- Further develop localized MPA response plans for enforcement officers.
- Continue to use existing and pilot new technology-based solutions.
- Encourage enforcement partners to focus on compliance through an environmental justice lens, specifically creating a more inclusive atmosphere at the coast and raising awareness in officers around Tribal exemptions.
- Increase District Attorney participation in the DA Task Force and increase MPA awareness among judges and court officers, including willingness to share case dispositions.

Management Pillar Four – Policy and Permitting

The Role of the Collaborative Network in Policy and Permitting

The CN primarily facilitates resource and knowledge sharing in the Policy and Permitting pillar. As a member of the MSLT, we provide local input and flag important issues to state managing agencies that may require policy level changes or permits. For example, when some researchers were looking for answers about their SCPs for MPA long-term monitoring, the CN staff helped connect the right partners.

The CN staff consults with local agencies and stakeholders on policy and permitting pathways, and acts as a conduit of information on how collaborative members could propose regulatory changes. One of the greatest collaborative accomplishments was assisting with regulatory changes for more effective MPA enforcement: [AB-298](#) and [AB-2369](#) for increased fines for egregious commercial MPA violators (see the [AB-2369 blog post](#) or the [WILDCOAST 1-pager](#) for more information). Primarily, the CN serves as a forum for communication.

1. Providing a Forum for Communication

The CN often hosts or co-hosts topic specific forums to discuss policy and permitting (e.g., SCPs, restoration, ecological reserves overlapping with estuarine MPAs, commercial kelp licenses). After the Compliance Forums and Enforcement Trainings are complete (2019-22), the CN will compile and will share suggestions from community members and enforcement partners regarding minor regulatory modifications, slight boundary adjustments, incompatible uses, and areas where rules are unclear, ultimately to improve understandability and enforceability. Additionally, the CN provides a communications and engagement structure by connecting the local communities with the state managing agencies and encouraging participation (e.g., by providing public comment at the [Fish and Game Commission](#) meetings). This involves outreach and CN staff engagement with MPA NGO partners to share statewide and national policies and initiatives (e.g., 30x30 Initiative, Decadal Management Review, aquaculture permitting, [Areas of Special Biological Significance](#) and MPA water quality) with our network and beyond.

Challenges in Policy and Permitting

Aside from the CN's lack of capacity to address the multitude of local questions and concerns and identify a clear pathway for answers, we continually find there is confusion among collaborative members and the public around where the CN stands as a liaison versus decision maker for adaptive management. Similarly, there is a perception of inaction or long-timelines when it comes to making small adjustments to boundaries for more effective enforcement, changing incompatible policies, streamlining unclear regulations, and issuing permits.

Knowledge/Management Gaps in Policy and Permitting

- A jurisdictional map with offshore areas to identify the landowner/manager on lands bordering MPAs.

- A database of SCP submissions and status with reasons why they were denied or requested to change their research project available to the Collaborative Network and public.

Goals for the Future for Policy and Permitting

- Inclusion of Traditional knowledge in MPA management, including movement toward Tribal co-management, and acknowledgement of Indigenous stewardship of marine resources.
- Equal protection under the law for all living and non-living resources in MPAs.
- Continued education and development of relationships between tribal governments, stakeholders, commercial fishing, and the State of California.
- Establish a process for identifying management jurisdictions and cite authority of allied agencies on or bordering MPAs.
- Ensure regulations and boundaries are clear and enforceable.
- Continue to provide alternate pathways for Collaborative members to provide input and propose changes both formally and informally to regulations and boundaries.
- Improve understanding of differing levels of access to MPAs and increase access where possible.

Conclusion and Recommendations for Future State Action

This MPA network will only be as effective as the people supporting it. To maintain the network, people need to feel that they are heard, their input is valued, and that they are a part of the management process. While it is the mission of the Collaborative Network to provide the structure for ongoing stakeholder engagement and encourage the culture of listening and understanding of differences, this structure also needs the support of the state to fully function. People need to feel that their efforts result in action and that the state values them as well as the resources they manage. After almost 10 years of active outreach, listening sessions, meetings, forums, consultations, trainings, phone calls, strategic planning, events, dinners, lunches, meet-ups, ride-alongs, surveys, emails, evaluations, Zooms and more Zooms, the CN offers the following key recommendations for more effective management of California's MPA Network:

Recommendation 1 – Improve Access, Equity, and Inclusion

The state should make a concerted effort to ensure equitable coastal and marine access and improve efforts to include more diverse communities in MPA management. This can be done through solicitation of stakeholder and partner input early and often through the collaboratives, making sure all decision-making processes are transparent and inclusive, supporting the development and funding of a Tribal collaborative, and building trust by adding more communication pathways between the state and local partners.

Recommendation 2 – Increase Support for Collaboration

An increase in support for a statewide stewardship network like the CN can leverage the in-kind resources of an unmatched pool of coastal resource managers, scientists, and ocean stewards while also ensuring the local applicability and long-term buy-in of Californians at large. Funding opportunities should be long-term, stable, and [trust based](#) so that the CN, individual collaboratives, Tribes, and other local managing partners can effectively and equitably plan, execute, evaluate, adapt, and maintain their products, programs, or services over time.

Recommendation 3 – Utilize the Collaborative Network for Maximum Impact

Now that the Collaborative Network is established and success has been proven, the state should continue to explore how it can better leverage, trust, and support the structure that has been built to help connect state managing agencies and local stakeholders. Continuing to fund the CN and collaboratives, engaging regularly with members by utilizing the communication/dissemination structure, accepting the local feedback and ideas of stakeholders and partners, and allowing the CN to act on these community-based solutions will continue to demonstrate that the incredible amount of time, energy, and resources that more than 1400+ members dedicate to support MPA management is valued by the state. This reinforced and expanded buy-in from the state will further increase trust and participation across sectors and partners, strengthening the Collaborative Network and enabling all of us to meet the goals of the MLPA as a team.

Thank you!

The CN would like to thank each and every person who has contributed to the success of the Collaborative Network over the past ten years. From collaborative Co-Chairs to members, from state agency partners to Tribal partners, from fishing representatives to academic researchers, from individuals to whole organizations, and everyone in-between, we thank you all! None of this would be possible without the incredible work that you do every day. A special thank you to the California Department of Fish and Wildlife, Ocean Protection Council, and Resources Legacy Fund for your ongoing support and partnership. Thank you to our Decadal Management Review Working Group members and our two report reviewers for all of your help.

We acknowledge that this report contains a wealth of information, but it is provided in summary form and does not accurately represent the amazing contributions of individual collaborative members and partners. Please be sure to [visit our website](#) and view the project library, collaborative pages, blog, newsletter, and resource pages for more detailed information. Additionally, you can learn more about what each member organization/agency/affiliation does to support MPA management by visiting their own websites, currently linked on the collaborative webpages. We also encourage you to review CDFW's MPA Decadal Management Review Report and the other Key Partner Reports for further information. This report provided us with the chance to take a step back, evaluate, appreciate, and communicate all that has been accomplished in the past ten years. The Collaborative Network website and other communication channels will continue to be improved upon and added to as we work to highlight and share MPA information, opportunities for engagement, and collaborative projects over the next ten years.



Marine Protected Area Collaborative Network:
Fostering Local Stewardship in Marine Resource Management
MPA Decadal Management Review Key Partner Report
Appendices

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Note: The appendices includes graphics mentioned and linked throughout the main body of this report as well as additional graphics. Most images are linked to a higher quality version on our website. The graphics should be viewed in conjunction with the associated report text.

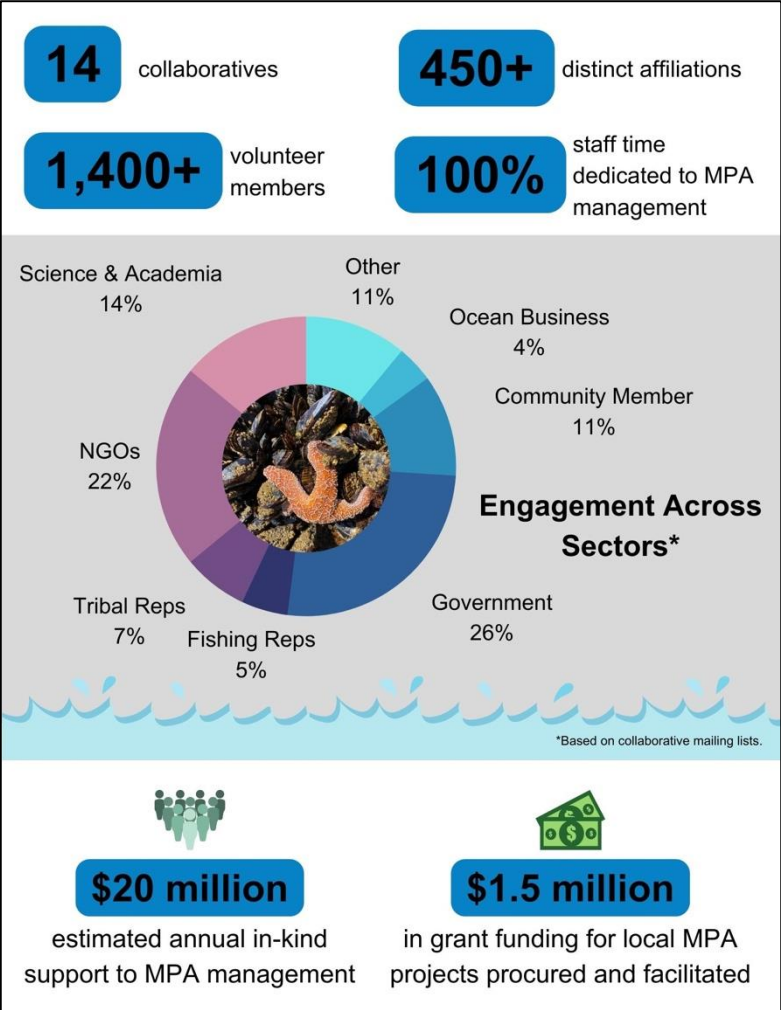
Appendix A - Overview of the MPA Collaborative Network Expanded

Organizations ranging from government agencies to ocean business to academia are no longer isolated in their efforts; they now work together – not only to further their local initiatives, but also to create mutually advantageous results more easily or effectively than on their own. This unprecedented level of cooperation is evidence of the progress made since 2012, when the Fish and Game Commission adopted a statewide network of 124 marine protected areas (MPAs) to preserve the diversity and abundance of marine species, the habitats they depend on, and the integrity of marine ecosystems. The Collaborative Network has been hard at work ever since giving stakeholders and local agencies an active voice in the ongoing stewardship and management of California’s MPA network.

The Collaborative Network structure is designed as a “network of networks” with many members across a diverse array of sectors engaging with MPA management through 14 county-based collaboratives.



Image A1 (left), an overview of the Collaborative Network structure and membership. Image A2 (above right), a Collaborative Network timeline showcasing key milestones for the Collaborative Network as well as state managing agencies from 1999 until 2022.



How the Collaborative Network Supports MPA Management Expanded

The Collaborative Network bridges the gap between local communities and the state and federal managing agencies. The CN takes input heard from both collaborative members and state agency partners and turns those ideas and concerns into action in a variety of ways.

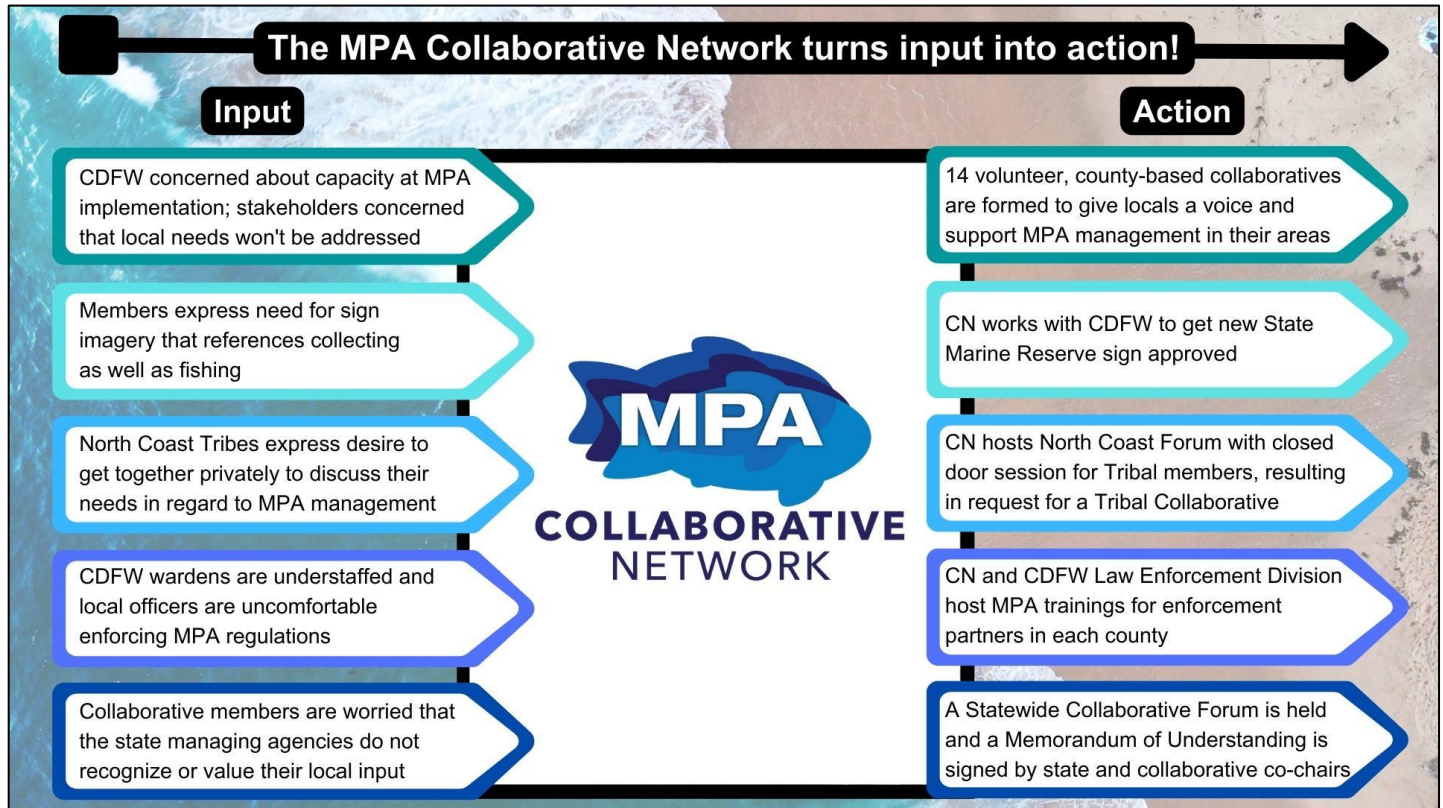


Image A3 (above) showcases examples of how the Collaborative Network has acted on input we have received over the past 10 years.

Collaborative Network Accomplishments Expanded

Thousands of hours and 100% of CN staff time has been dedicated to supporting MPA management by fostering collaboration among members and partners. The CN has hosted, facilitated, or attended over 1,000 meetings, presented about MPAs and the Collaborative Network model to managers and experts both inside and outside of California many times over, and has a wide range of subscribers and followers to share MPA management information with.

Image A4 (right) illustrates how the Collaborative Network has supported MPA management by fostering collaboration in a variety of channels



Appendix B – Benefits to Involvement

Collaborative members were asked what they think the greatest benefit to participating in the collaboratives through a CN survey sent out to gather input for this DMR report, as well as in University of Michigan student conducted interviews. Members stated a variety of benefits to being involved in the Collaborative Network, with many highlighting how it creates opportunities for local and statewide communication, collaboration, projects, information access, and increasing visibility of local interests and organizations.

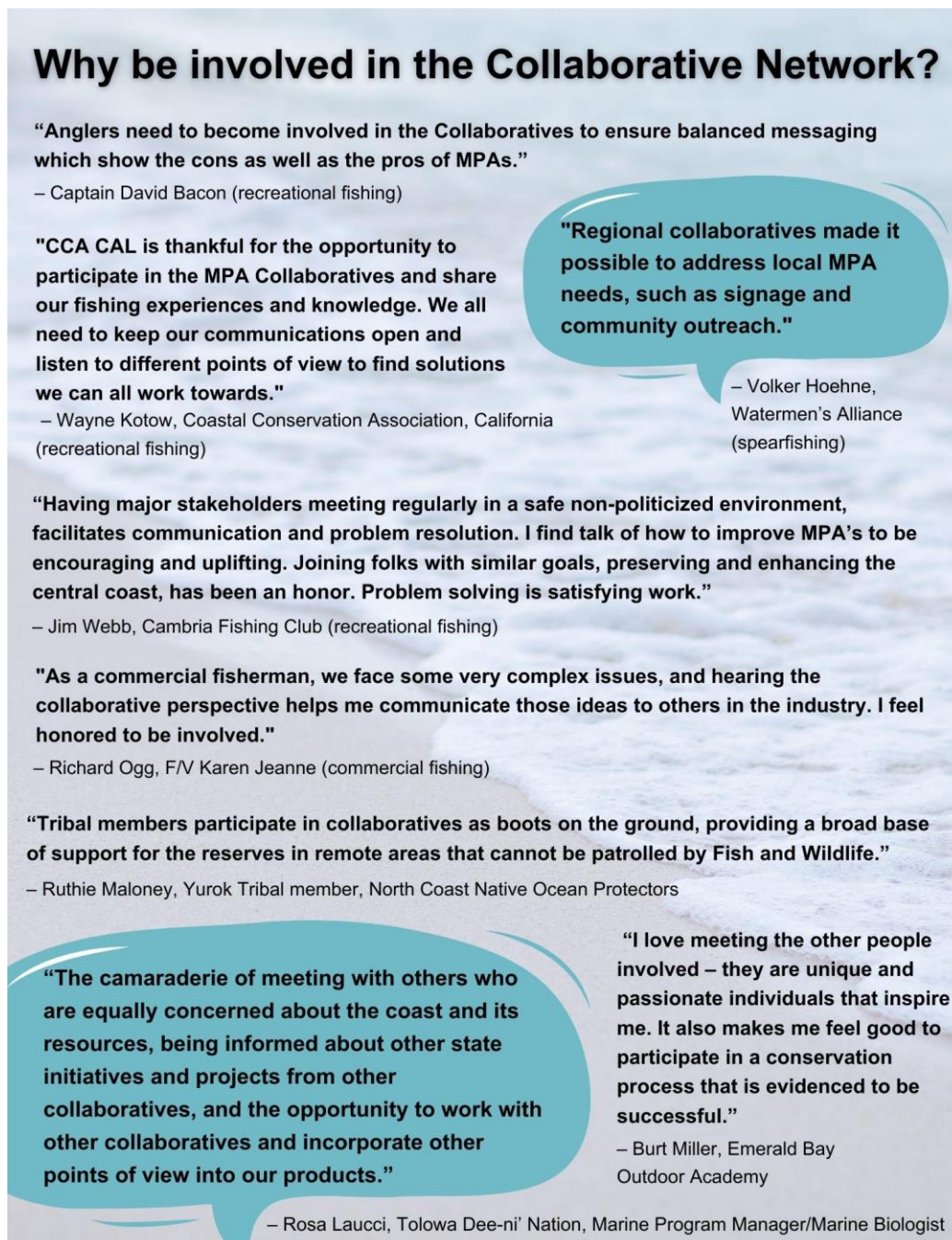


Image B1 (above), examples of testimonials from Collaborative Members when asked what the greatest benefit to participating in their collaborative is?

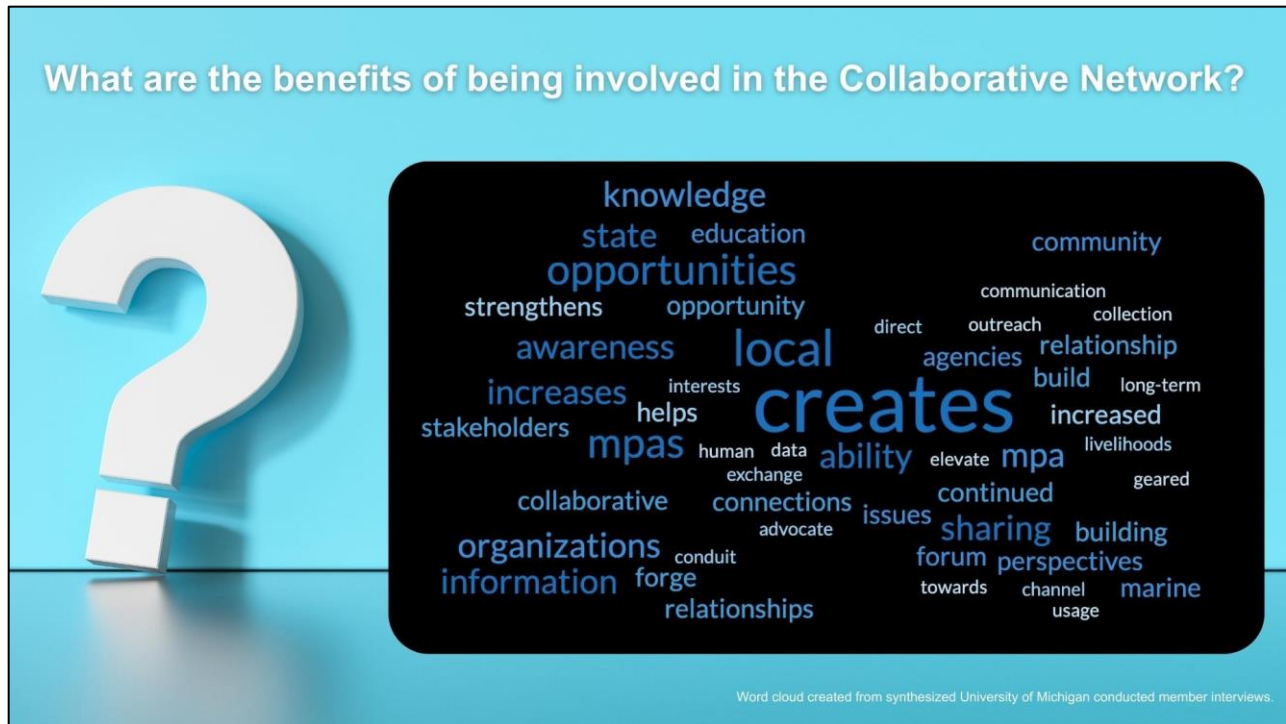


Image B2 (above), University of Michigan students conducted interviews of collaborative members where they were asked what the benefits of being involved in the Collaborative Network were. The responses were synthesized and added to a word cloud generator to create the image seen above.

Additional Testimonials

Fishing

- “Anglers need to become involved in the Collaboratives to ensure balanced messaging which show the cons as well as the pros of MPAs.”
 - Captain David Bacon (recreational fishing)
- “Regional collaboratives made it possible to address local MPA needs, such as signage and community outreach.”
 - Volker Hoehne, Watermen’s Alliance (spearfishing)
- “CCA CAL is thankful for the opportunity to participate in the MPA Collaboratives and share our fishing experiences and knowledge. We all need to keep our communications open and listen to different points of view to find solutions we can all work towards.”
 - Wayne Kotow, Coastal Conservation Association, California (recreational fishing)
- “As a commercial fisherman, we face some very complex issues, and hearing the collaborative perspective helps me communicate those ideas to others in the industry. I feel honored to be involved.”
 - Richard Ogg, F/V Karen Jeanne (commercial fishing)
- “Having major stakeholders meeting regularly in a safe non-politicized environment, facilitates communication and problem resolution. I find talk of how to improve MPA’s to be encouraging and uplifting. Joining folks with similar goals, preserving and enhancing the central coast, has been an honor. Problem solving is satisfying work.”
 - Jim Webb, Cambria Fishing Club (recreational fishing)

Tribes

- “Tribal members participate in collaboratives as boots on the ground, providing a broad base of support for the reserves in remote areas that cannot be patrolled by Fish and Wildlife.”

- Ruthie Maloney, Yurok Tribal member, North Coast Native Ocean Protectors
- “The comradery of meeting with others who are equally concerned about the coast and its resources, being informed about other state initiatives and projects from other collaboratives, and the opportunity to work with other collaboratives and incorporate other points of view into our products.”
 - Rosa Laucci, Tolowa Dee-ni’ Nation, Marine Program Manager/Marine Biologist

Other members

- “I love meeting the other people involved – they are unique and passionate individuals that inspire me. It also makes me feel good to participate in a conservation process that is evidenced to be successful.”
 - Burt Miller, Emerald Bay Outdoor Academy
- “Getting involved with Catalina MPA and providing input for the Avalon area has been most important for me. I have learned a great deal and believe in the conservation activities that enhance our islands natural resources... The benefit is in the beauty of the MPA as a protected area enhancing our island and strengthening our fisheries.”
 - Orne Carstarphen, City of Avalon Harbor Master
- “The excitement and motivation of meeting with others who have a similar healthy ocean mindset and being informed of statewide programs and goals. CDFW has transformed from primarily a game regulation agency to an environmental planning agency. As such it needs to build community alliances to support the Master Plan. The Collaborative Network and MPA Watch are able to provide an ideal structure to help CDFW accomplish that goal.”
 - John Corbett, Co-Chair Del Norte MPA Collaborative
- “The greatest benefit is collaborating and learning from others in the Collaborative Network both in our region, but especially engaging with other agencies and NGOs statewide. The resources and facilitation provided by the MPA Collaborative team has been invaluable and greatly improved our understanding and reach. Direct engagement with the public educating on the benefit of MPAs and how to comply (and the reasons why) through the education and docent programs has been highly beneficial in strengthening reach and the collaborative.”
 - David McGuire, Shark Stewards
- “Being informed of meetings, attending meetings and creating strategies to solve problems. Also - networking with others.”
 - Robert Jamgochian, Mendocino Collaborative Member
- “Networking with a broad range of community members and MPA users. This networking allows a wide variety of end-users to share ideas and perspectives.”
 - Julia O’Hern, The Marine Mammal Center
- “We appreciate the opportunity to exchange information and share a wide range of viewpoints, with the potential for collaboration with other organizations. We are made aware of grant opportunities and able to share concerns.”
 - Shawna Weaver, Walter Munk Foundation for the Oceans
- “Learning from and building on knowledge of other collaborative members to create synergy and support that helps to achieve mutually-beneficial goals. Becoming aware of different perspectives/needs and sharing concerns. Learning of grant opportunities.”
 - Isabelle Kay, University of California San Diego
- “Being able to collaborate with partners and other organizations toward a shared goal.”
 - Robin Hazard, California State Parks San Luis Obispo Coast District
- “Channel Islands MPA compliance and awareness is a big part of my job at NOAA. Supporting the MPA collaborative network with CDFW aligns well with my

responsibilities to try and effectively engage different stakeholders on MPA education and outreach.”

- Julie Bursek, Channel Islands National Marine Sanctuary
- “My staff have really appreciated learning about professional development opportunities. It is also helpful to keep a pulse on what is going on with other community groups who work with marine ecosystems in various ways.”
 - Lydia Ballantine, Explore Ecology
- “Networking, learning from other members about projects they are currently working on, collaborating to find the best ways to increase knowledge of and compliance in our MPAs.”
 - Krista Rogers, Save Our Shores
- “Be involved with framing needs of the MPAs, learning about MPAs, being involved in MPA leadership, being involved in projects.”
 - Nicole Crane, Cabrillo College and One People One Reef
- “I think the greatest benefits are being more aware of what others (other NGOs, agencies, etc.) are doing, what challenges they face, and their perspectives, both within the County and within California and being able to share what we are doing. This has led to collaborations that would not occur otherwise.”
 - Suzanne Olyarnik, Bodega Marine Reserve
- “Openness to represent my organization’s members perspective while networking with others who are also concerned about the coastal areas and sharing resources to support the communities we serve.”
 - Linda Chilton, University of Southern California Sea Grant Program
- “Understanding the challenges facing the rest of the state and meeting motivated people who wish to better their local area.”
 - Tristin McHugh, The Nature Conservancy
- “The knowledge share and collaboration with others in the area is so important so messaging is consistent and everyone is on the same page. I have also been able to connect with professionals and researchers easier through the collaborative to help guide direction on conservation of the areas and make better decisions for priority needs.”
 - Carissa Macias, City of Newport Beach
- “Collectively brainstorming ways to limit human impact within Orange County helps bring new ideas from other agencies and nonprofits.”
 - Alex Anderson, Crystal Cove State Park

CDFW and OPC Staff

- “Hearing different issues and corrective strategies facing other MPAs and collaboratives.”
 - Gabriel Peñaflor, California Department of Fish and Wildlife
- “[The collaboratives provide us with] the capacity that we wouldn’t have otherwise and that’s true with any of our partners because we only have so much capacity and it’s very hard for the state to get additional capacity [funding or positions].”
 - Anonymous, *University of Michigan Interviews with State Partners*
- “You need to have local buy-in in order to feel the same way about an MPA. The MPA Collaborative Network is a really critical piece to MPA management.”
 - Anonymous, *University of Michigan Interviews with State Partners*
- “We can only be as effective as the people that we’re serving on the ground... you really need engagement with the local community.”
 - Anonymous, *University of Michigan Interviews with State Partners*

Appendix C – Challenges Expanded

Collaborative Network Level Challenges Expanded

The Collaborative Network's challenges are well summarized and supported by the paper, "[A Case Study on Building and Sustaining Landscape-Scale Stewardship Networks in the 21st Century](#)" by Leigh Goldberg Consulting (Goldberg, L. 2018). The case study recognizes the importance of place-based collaborative networks for meeting the growing complexity and scale of environmental, social, and economic challenges facing the long-term stewardship of working and conserved places. Goldberg (2018) defines place-based collaborative networks as the following:

These networks are comprised of diverse stakeholders from multiple sectors addressing a range of related issues, such as climate resilience, community wellbeing, and economic growth. They are commonly described as "landscape-scale" because they are formed around a specific landscape or geography, and thus require cross-boundary collaboration from multiple partners and stakeholders. What unites these diverse stakeholders is their shared commitment to a place, a largescale problem such as forest health or fire fuel management, or a state or federal mandate that requires regional coordination to achieve a broad, landscape-scale policy decision. Network participants are often seeking overarching solutions to long-term, systems-level problems, which requires leveraging a diversity of resources, developing collective and regional goals, and providing leadership, planning, and actions that transcend organizational, land ownership, political, and jurisdictional boundaries. (p. 3)

Despite the rapidly growing trend of the emergence of new landscape-scale partnerships and networks there are significant funding barriers facing networks (Goldberg, L. 2018). The study identified five of the most significant challenges that limit a networks ability to optimize, scale up, and sustain their impact: 1) networks have unique capacity needs, 2) this is still a maturing field, 3) there is a shortage of significant, stable public funding, 4) landscape stewardship holds less overt funder appeal, and 5) natural landscape problems are often "out of sight, out of mind" (Goldberg, L. 2018). Further details about each challenge from the case study's [Summary and Key Findings document](#) are as follows:

1. Landscape Stewardship Networks Have Unique Capacity Needs:

Networks need talented and dedicated leaders to facilitate collective work and serve as the "connective tissue" to ensure effective ongoing coordination and communication, problem solving, visioning, and accountability. Networks also need to have the ability to aggregate, track, and monitor cross-boundary scientific data from multiple partners and across multiple platforms to determine trends and develop management plans. Collaborative work requires support and flexibility to create new management frameworks and innovate to overcome institutional barriers and advance shared goals. Partnerships are constantly moving through phases of a lifecycle (start-up, building, maintaining, and sustaining) as some successful strategies are embraced to achieve shared goals while others are replaced with new strategies to achieve greater success. To remain effective, networks require time to re-evaluate how they work together by reviewing shared metrics and revisiting and developing new tactics and practices.

2. Deep, Cross-Boundary Collaboration is Still a Maturing Field:

The necessary skill sets, practices, policies, and funding models for landscape-scale stewardship networks are still emerging and evolving. Creating new funding models and paradigms takes time, requires frequent innovation and risk-taking, and can involve steep learning curves for all involved.

3. There is a Shortage of Significant, Stable Public Funding to Steward and Sustain Conserved Lands:

According to the California Protected Areas Database, almost half of the state's land mass is protected for open space purposes. This land requires ongoing collaborative stewardship to protect the

ecological, social, and economic value of these areas. However, current public funding is limited in availability, and available funding is limited in the scope of what it can be used for. Without a well-supported landscape-level approach to long-term stewardship, many interviewees believe that these resources are at risk.

4. Landscape Stewardship Tends to Hold Less Overt Funder Appeal:

Despite philosophically supporting stewardship endeavors, funders and policymakers continue to prioritize projects that result in additional acres of preserved lands or more tangible, immediate results. Many funders see stewardship as an endless endeavor and prefer more finite achievements with shorter timelines.

5. Natural Landscape Problems Are Often “Out of Sight, Out of Mind”:

The maintenance needs of highly dynamic natural landscapes are often more difficult to communicate and comprehend—and therefore fund—than more visible infrastructure needs like potholes in roads. This issue is exacerbated by the lack of a consistent, shared vocabulary in the environmental community and the need to collaborate with other sectors. (Goldberg, L., 2018 [Summary and Key Findings document](#))

Collaborative Level Challenges Expanded

1. Difficulty in sustaining and diversifying participation in the collaboratives:

There is a lack of defined and prioritized approaches to effectively engage diverse audiences, especially Tribes, commercial and recreational fishers, and historically marginalized groups. Encouraging active participation was especially difficult during the COVID-19 pandemic when in-person meetings could not occur. Geographic boundaries, physical distance, and limited cell service/WiFi are also barriers that limit participation.

2. Lack of time and funding for collaboratives:

There is limited time, funding, and overall capacity of current and potential new members to contribute to collaborative projects, or participate in programs such as MPA Watch, when many have other jobs outside of the collaborative. This is especially true for historically marginalized groups. When grants are procured, effectively leveraging grant funding for projects when there is limited capacity of volunteer members can be a challenge, highlighting the need for collaborative-level administrative support and clearly defined leadership and membership roles.

3. Hard to define collaborative scope and purpose:

There is a need to clearly communicate how collaboratives can inform MPA management and complement existing resources to increase the visibility of the collaborative in the community. Lack of awareness of the collaboratives can be compounded by a limited public understanding of the value of MPAs in general.

4. Unclear or mixed MPA messaging:

There are still residual tensions from the initial designation process and continued confusion regarding the long-term management of MPAs. The lack of support and resources from the state for those working directly with constituents at the local level, who often have conflicting opinions and perspectives about MPAs, can add to the confusion and frustration and often results in mixed messaging.

COVID-19 Pandemic Challenges

The COVID-19 Pandemic began in March 2020 and has presented new challenges to the Collaborative Network and member organizations/agencies. Primary pandemic challenges include a significant increase in workload combined with decreases in funding, staff time, and wellbeing, significant increases in coastal visitation and associated impacts, and technological barriers to participation.

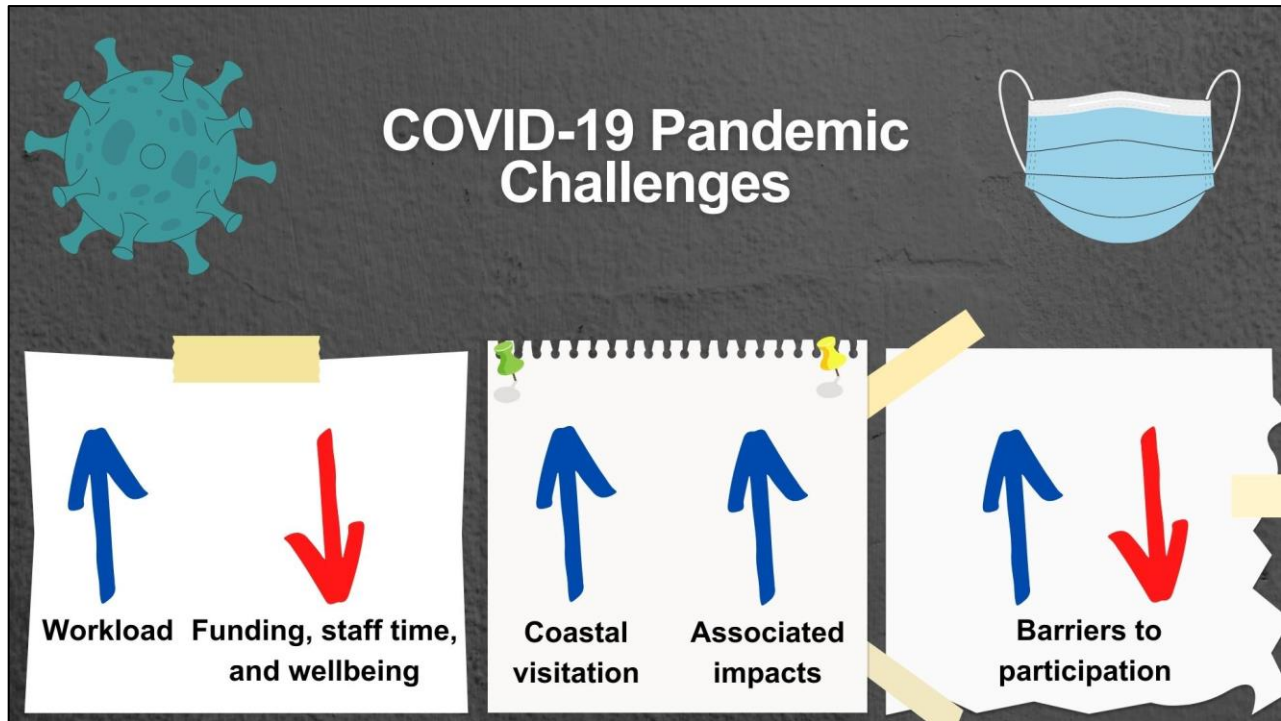


Image C1 (above) illustrates some of the challenges presented by the COVID-19 pandemic such as increased workload combined with decreased funding, staff time, and wellbeing; increased coastal visitation and associated impacts to habitats; and increased barriers to participation for some and decreased barriers for others depending on their technological tools and abilities.

1. Significant increase in workload combined with decreases in funding, staff time, and wellbeing:

The CN alone had more meetings in the two years since the pandemic began than in the prior eight years combined. The abrupt shift to a virtual space also affected collaborative members with many reporting increased meetings, workload, overall hours worked, and the resulting impacts to mental and physical wellbeing. This increase in workload was confounded by a decrease in capacity (staff, time, and resources) among many members who were faced with funding shortages, furloughs, layoffs, and reassignments. State agency members, in particular, were furloughed, reassigned to contact tracing, or required to cover their reassigned co-workers leading to a significant decrease in engagement and interaction among partners. Personal responsibilities, such as childcare, also increased or were impacted by the pandemic, affecting members ability to participate in collaborative efforts. Local MPA ambassador, docent, volunteer, and education programs, enforcement trainings, and Community and Citizen Science (CCS) programs and traditional research and monitoring programs all came to a halt for a majority of 2020. Ever changing mandates, closures, and safety measures across a variety of jurisdictions affected these programs' ability to return to the coast safely and quickly. Relevant funding for MPA, ocean, and coastal related projects and programs was also harder to find and secure with some programs not offering the anticipated funding upon which many members rely.

2. Significant increases in coastal visitation and associated impacts:

There are millions of visitors to the coast which has had an overwhelming impact on all resources. This has been exacerbated during the COVID-19 pandemic. The CN hosted [Community Compliance Forums](#) for each collaborative region from the end of 2019 through 2020. The Community Compliance Forums Statewide Report states the following:

Across all the Forums, participants commonly mentioned an increase in visitation, a lack of awareness, a shortage of both enforcement officers and enforcement action, and confusion regarding regulations, boundaries, or jurisdiction as concerns. Due to their general nature and commonality across the state, these concerns were identified as underlying factors potentially contributing to noncompliance. During 2020, visitation to the coast and MPAs was elevated, especially in the summer months (except during mandated beach closures) in large part due to the COVID-19 pandemic. Note that the San Diego and Orange County Forums were held prior to COVID-19. (p. 9)

3. Technological barriers to participation:

The shift to a completely virtual workspace for meetings, projects, events, and more seems to have simultaneously increased the ease of participation for some while increasing barriers to participation for others. Those that have the appropriate technological tools (laptops, smart phones, good internet connection, etc.) and the technological know-how were able to attend meetings more easily and engage more often in projects. MPA messaging may have also reached broader audiences as many members pivoted to providing virtual learning programs, leveraging collaborative relationships and resources to create new MPA online learning programs. However, those that do not have access to the appropriate technology tools or skills faced new and confusing barriers to engagement. One example of this conundrum is the difficulty the CN has had in providing online collaborative meetings that are as accessible as possible with limited barriers to participation, while balancing online security. The CN has experienced two “Zoom bombs” during collaborative meetings where ill-meaning participants join or hack into the meeting and cause a disruption by showing or saying inappropriate things. Even with security features enabled such as requiring registration and enabling a waiting room, these disruptions have occurred, causing meetings to end prematurely or people to leave.

Appendix D – Regional Collaborative Summaries

Collaboratives self-selected into regions at their inception, eschewing Marine Life Protection Act Initiatives (MLPAI) study regions in favor of more socially based regions that did not split county lines and connected counties with similar concerns, communities, and outreach audiences.

North Coast Summary

The North Coast is comprised of four collaboratives: [Del Norte](#), [Humboldt](#), [Mendocino](#), and [Sonoma](#). There are challenges that are unique to this region due to its rural and hard to access coastal areas. Hard to access MPAs results in less familiarity among the public and difficulties communicating the benefits, especially when the current kelp crisis seems to contradict those benefits. A small population also means a limited base for volunteers who are already stretched thin in their communities. The inequitable compensation for organizations or agencies from outside the region to do MPA work, rather than relying on local experts, has led to feelings of mistrust and disenfranchisement.

Most of the North Coast goals for the future focus on Tribal engagement and support of Tribally led projects. This includes promoting continued Tribal leadership in MPA monitoring programs and subsequent publication of results, a move to Tribal Co-management of marine resources, the incorporation of traditional knowledge into MPA management, and the acknowledgement of indigenous stewardship of marine resources. There is a hope for the continued education of, and development of relationships between, Tribal governments, stakeholders, commercial fishing, and the State of California. There is also an interest in increasing participation in and expanding research and monitoring projects in the north coast, including more community and citizen science programs, monitoring of new or missed species (such as California Condors and select invertebrates), and increasing studies of climate driven impacts to north coast MPAs. Education and outreach priorities include increasing education among coastal program volunteers so they can speak to the benefits of MPAs to visitors and residents at popular coastal access areas as well as expanding outreach efforts to underserved audiences and providing financial supporting for participation.

Image D1 (right), highlighted accomplishments for each collaborative in the north coast region. For details on all collaborative projects, visit [our website](#).

North Coast Collaborative Accomplishments	
	Tribal led marine ecosystem monitoring program and established MPA Watch sites to collect baseline beach use data for the North Coast.
Increasing availability of educational resources via the MPA Teacher Toolkits and regular MPA focused virtual field trip programs.	
	Increased education and awareness of marine protection in general and the development of the "marine conservation" conversation between stakeholders, commercial fishing industry, and managers.
MPA video series campaign created in collaboration with local commercial fishing community and Tribal representatives.	

Central Coast Summary

The Central Coast is comprised of five collaboratives: [Golden Gate](#), [San Mateo](#), [Santa Cruz](#), [Monterey](#), and [San Luis Obispo](#). Challenges unique to this area revolve around a lack of capacity or limited methods to engage with the high level of international and out of state visitors to the central coast and limited resources to dedicate to tidepool docent programs. Residual tensions from the initial designation process have made it difficult to engage fishers. There is also a challenge in getting enforcement partners to either report their MPA related contacts or to make those contacts in the first place.

Central Coast goals for the future are mostly focused on increasing community awareness of MPAs, in general as well as through direct education at popular tidepools, special closures, and remote MPAs. Central coast collaboratives would also like to have a clearly defined plan for increasing and sustaining the diversity of collaborative membership, particularly with the fishing community, historically marginalized members of the community, and students. Given the large overlap with National Marine Sanctuaries in this region, there is also a goal to better integrate MPA concepts into messaging about Federal MPAs and other ocean and climate related issues to garner more support and increase the volunteer base for cross projects.

Image D2 (right), highlighted accomplishments for each collaborative in the central coast region. For details on all collaborative projects, visit [our website](#).

Central Coast Collaborative Accomplishments	
	MPA Ambassador outreach program and resources including online training modules and brochure.
Locally focused MPA resources for residents, visitors, and enforcement partners including a video series, brochure, and key phrases translation sheet.	
	Forum for communication, collaboration, and sharing for more effective programs and products that feature Federal/State MPA cross-messaging.
Distribution of 78,000 bilingual MPA coloring and activity books with augmented reality experiences throughout coastal California.	
	Significant reach of MPA interpretive programs to over 25,000 people worldwide over hundreds of programs.

South Coast Summary

The south coast is comprised of five collaboratives: [Santa Barbara Channel](#), [Los Angeles](#), [Catalina Island](#), [Orange County MPA Council](#), and [San Diego](#). Challenges that are unique to this region focus more on the urban nature of the coastline and the impact made by the millions of visitors to the coast as well as impacts of industrial commerce such as the 2015 and 2021 oil spills in Santa Barbara and Orange County, respectively. Reaching and building relationships with diverse community members, especially those further from the coast, to develop effective culturally relevant education and engagement resources is both a challenge and a priority. With the sheer number of visitors comes the need for more effective, culturally relevant, easy to understand signage, materials, and programs in languages other than English. Additionally, a greater enforcement presence is needed to address observed/reported violations, especially at night or early morning hours and in coastal lagoons.

South coast goals for the future mostly focus on how to creatively educate the public on MPA regulations to increase compliance and reduce illegal trespassing and fishing in unauthorized areas. Besides increasing the capacity of enforcement or compliance personnel to patrol and advise, improving MPA signage at access points and on the water with more specific information about how to safely visit and minimize damage to the habitat is a priority. Maximizing use of existing education and outreach resources, expanding MPA ambassador programs, increasing diving community engagement, and integrating MPA messaging into sea level rise, climate change, and wildlife disturbance messaging were also identified goals. Finally, the South Coast collaboratives would like to better engage diverse communities through targeted outreach programs and products and foster a sense of belonging as partners in marine protection and ocean stewardship.

Image D3 (right), highlighted accomplishments for each collaborative in the south coast region. For details on all collaborative projects, visit [our website](#).

South Coast Collaborative Accomplishments	
	Interactive map of Channel Islands MPAs and all southern California MPAs that is part of an exhibit at the Santa Barbara Natural History Museum's Sea Center.
A network of cross-sector organizations raising awareness of MPAs and including diverse viewpoints for culturally respectful MPA management.	
 Catalina Island MPA Collaborative	Increased awareness among visitors, boaters, and students by improving access to a diverse array of resources, sharing information at trade shows and visitor centers, and integrating information into local tourism websites.
Extensive tidepool volunteer programs with coordinated messaging and significant contributions to research and monitoring programs that involve students and community members in the process.	
	Building partnerships among members to deliver enhanced education and outreach programs, signage, and a cooperative enforcement program with municipal lifeguards and CDFW Wardens.

Appendix E – Management Pillars Expanded

Management Pillar One - Education and Outreach Expanded

Accomplishments in Education and Outreach

Collaborative projects have primarily focused on the creation of locally-focused education and outreach resources and programs that reflect the variety of constituent concerns in their communities. These collaborative projects allow for members to leverage each other's knowledge and resources to create more effective products with less funding. Collaboratives have created everything from videos and brochures to education toolkits with Next Generation Science Standards aligned lesson plans to trainings, exhibits, signage, and more! Collaboratives share and adapt resources created in other areas, building off of each other's work, ensuring statewide consistency, tailoring products to meet local needs.



Image E1 (above) summarizes collaborative education and outreach project highlights. For details on all collaborative projects, visit our website.

Challenges in Education and Outreach: Progress Made Toward Resolution

1. Tracking, Evaluating, and Quantifying

- Difficulty tracking location and number of educational resource distribution, use, and effectiveness with limited capacity (funding, staff time, short grant timelines) and differing preferences for tracking tools.
 - Examples of actions taken toward resolution: Trialing various methods to track locally through Collaboratives, project management support for providing structure, and CN project library as repository of resources.
- Understanding and quantifying reach of education and outreach efforts, e.g., how many people received MPA information during a program or saw signs?

- Examples of actions taken toward resolution: Survey asking Collaboratives and members to estimate their reach over the last ten years received a diversity of responses from “too hard to answer” to “hundreds” to “hundreds of thousands”.

2. Balancing Local Interests with State Agency Messaging

- Maintaining of statewide consistency while allowing for local tailoring.
 - Examples of actions taken toward resolution: San Diego adapted CDFW approved Orange County tidepool docent program and sign templates to have consistent protocols and messaging in the south coast. Collaborative brochures were developed to highlight local MPAs but included CDFW approved messages and guidelines provided in the MPA Education and Outreach Guidebook.
- MPA messaging is complicated, and it is hard for the public to understand the science.
 - Examples of actions taken toward resolution: simplified science of MPA graphics created for MPA enforcement trainings
- There is a tendency to overload people with related messaging, and in some instances, competing messages from related concepts, e.g., sanctuaries, protected areas in general (parks, estuaries), and 30x30 Initiative can lead to confusion among the public.
 - Examples of actions taken toward resolution: Working with State Parks and National Marine Sanctuaries to incorporate MPA messaging into sign templates, websites, and other outreach materials; working with Respect Wildlife to incorporate MPAs in wildlife disturbance social media campaign.

3. Barriers to Community Engagement and Access

- There are language and coastal access barriers, limiting the reach of MPA outreach
 - Examples of actions taken toward resolution: OCMPAC pilot on community vetted message translation process.
- Limited time and resources of collaborative members affects the ability to conduct outreach, engage new audiences, and seek input on material development.
 - Examples of actions taken toward resolution: Hiring local contractors to lead projects; providing space for feedback during meetings when people are already gathered and planned listening sessions to receive guidance from the community before further material development.
 - Examples of actions taken toward resolution: The CN leans on collaborative members, joint funding proposals, in-kind shared resources – e.g., funding can be shared between member organizations such as brochure printing.
- There is a need to reach new audiences including underrepresented and underserved communities, and teachers.
 - Examples of actions taken toward resolution: Los Angeles Collaborative pilot project on identifying pathways to engaging diverse communities; Del Norte and Humboldt projects to get MPA teacher toolkits into the hands of teachers
- It is challenging to get approval by state of new, different, or experimental forms of education and outreach.
 - Examples of actions taken toward resolution: Interested collaboratives are piloting livestreamed Trident mini-ROV videos to classrooms.

Management Pillar Two – Research and Monitoring Expanded

Accomplishments in Research and Monitoring

The two primary ways in which the Collaborative Network contributes to the Research and Monitoring management pillar is by supporting Community and Citizen Science (CCS) programs and by providing a forum for researchers, CCS participants, agencies, and the general public to share, integration, and collaborate with one another. Collaborative members are heavily involved in a diverse array of CCS programs such as MPA Watch, Beach Watch, Snapshot Cal Coast, California Collaborative Fisheries Research Program (CCFRP), Reef Check, Long-term Monitoring Program and Experiential Training for Students (LiMPETS), the Pacific Plankton Program, California Coastal Cleanup Day, Seabird Protection Network, and many more. Be sure to review the other Decadal Management Review Key Partner Report's such as the Center for Community and Citizen Science, MPA Watch, CCFRP, for more information about CCS programs in MPA implementation.

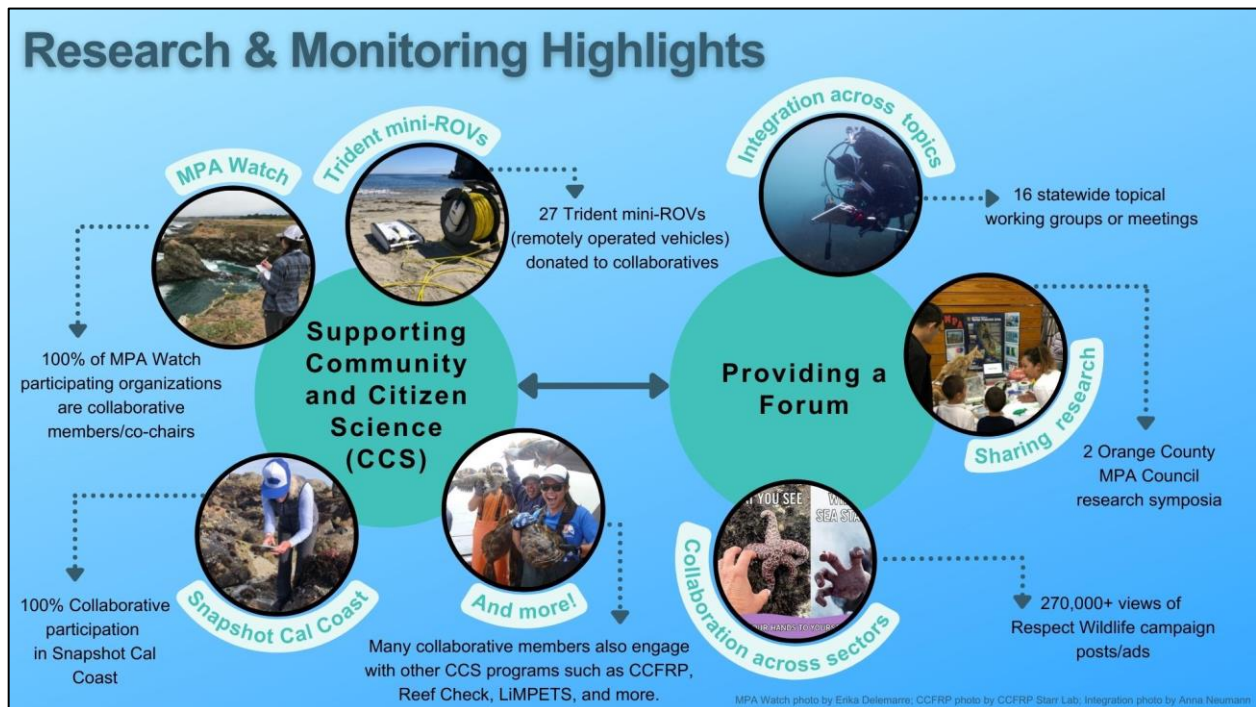


Image E2 (above) summarizes how collaboratives support research and monitoring through Community and Citizen Science (CCS) programs and by providing a forum. For more details on CCS programs in MPA implementation, view the other Decadal Management Review Key Partner Reports.

Challenges in Research and Monitoring: Progress Made Toward Resolution

1. Transparency with Local Community

- Lack of a streamlined process for the local jurisdiction and SCP permitting and no clear communication/notification system for when and where research is occurring locally and who is doing it.
 - Examples of actions taken toward resolution: In 2007, the CN piloted the use of a researcher notification form for Orange County; CN shared communication concerns with Sea Grant and was directed to the project webpages that contain limited information; CN shares Sea Grant MPA monitoring blog updates.

2. Lack of Engagement and Inclusion

- Limited engagement and inclusion of Tribes, the fishing and diving community, other researchers, and stakeholders in state funded MPA research and monitoring.

- Examples of actions taken toward resolution: CCS projects have been implemented such as California Collaborative Fisheries Research Program (CCFRP), MPA Watch with Tribally-led programs, Reef Check, and Snapshot Cal Coast; coordinating presentations by Tribal scientists for partners such as the Tolowa Dee-ni' Nation Natural Resources Department presentation at the 2021 California Coastal Wildlife Disturbance Symposium; involvement from CCFRP representatives in collaboratives; development of Estuary Working Group and future Tidepool Working Group where state funded researchers can present to members on their long-term monitoring projects.
- Examples of actions taken toward resolution: Close coordination with the Ocean Science Trust during collaborative development and initial implementation; non-state funded researchers involved in collaboratives, arranging forums and special topic conversations to connect with state agency representatives regarding research topics such as kelp forests, restorations, and urchins.

3. Difficult to Find or Access Monitoring Results

- Lack of accessible MPA research database with research from individual MPAs, the regions, and the network.
 - Examples of actions taken toward resolution: The CN adds MPA-related research that is shared with us to our website and tag it by its associated county locations so that it will appear on collaborative pages. For example, Santa Cruz Collaborative meetings have featured presentations by scientists and CCS projects.

Management Pillar Three – Enforcement and Compliance Expanded

Accomplishments in Enforcement and Compliance

The Enforcement and Compliance pillar is supported by the CN through the facilitation of partnerships, communications, and leveraging local and statewide resources. To support the efforts of CDFW Law Enforcement Division, the CN holds MPA trainings for officers, documents MPA compliance metrics, and elevates compliance issues through our involvement in the MPA Statewide Leadership Team. The CN's overarching Compliance Initiative includes MPA violation data collection from MPA enforcement partners in Southern California, MPA trainings for enforcement partners, community compliance forums and their associated compliance projects, and a District Attorney MPA training and Task Force.



Image E3 (above) summarizes recent enforcement and compliance efforts from partners. Over 447 enforcement partners representing over 80 distinct agencies/departments with approximately 430 officer reference guides distributed ultimately to train partners in MPA enforcement. Over 50 prosecutors and court officers participate in the MPA Task Force to prosecute MPA violations. For 25 agencies reporting in the South Coast in 2021, there were at least 27.5K MPA violations, 465K contacts were made in MPAs, and 102 MPA and Fish & Game Code citations.

Collection of MPA Compliance Data

The CN is continuing to work with enforcement partners across the state to collect MPA data such as violations observed, contacts made, and citations written in MPAs. The CN's current MPA compliance action dataset is South Coast focused due to the concerted efforts of the CN's South Coast Specialist. Additionally, reporting is not consistent across agency or over time, thus underreporting is likely. Some highlights of data collected from South Coast enforcement partners include the following

- During an estimated 50,000 hours of MPA patrols annually, enforcement partners made 776,248 and 464,860 educational contacts for 108,842 and 27,596 observed and reported violations in MPAs, in 2020 and 2021, respectively.
- Enforcement partners wrote 352 and 99 infractions and 10 and 13 misdemeanors for MPA-related violations in 2020 and 2021, respectively.

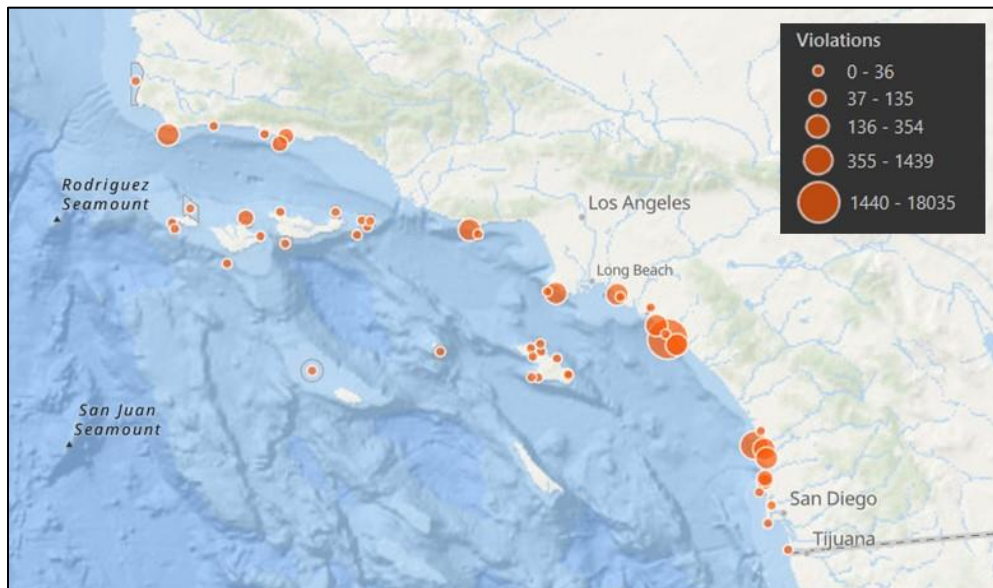


Image E5 (above) shows a map that is a preview of a dashboard (in development with ESRI) for MPA compliance action data from enforcement partners (i.e., violations, pictured) represented geographically. The CN will develop this first for the south coast, then expand to cover the State of California.

Hosting of MPA Trainings for Enforcement Partners

The CN has worked closely with CDFW to organize and facilitate locally specific MPA trainings for officers since 2007. Since 2007, over 447 enforcement partners representing over 80 distinct agencies/departments have been trained in MPAs. Participating agencies include but are not limited to State Park Officers, County Sheriffs, City Police, National Park Rangers, Tribal Police, Bureau of Land Management Rangers, U.S. Coast Guard, Marine Safety Officers, NOAA Office of Law Enforcement, Harbor Patrol, County Rangers, and more. The trainings include discussions with local wildlife officers, the science of MPAs (by CDFW Environmental Scientists), local MPA regulations and boundaries, access points, a local District Attorney perspective on the prosecution of MPA violations. The trainings not only provide useful information for officers and other attendees but serve as a networking opportunity for agencies interested in mutual aid response. Moreover, the CN has worked with a licensed land surveyor to add boundary lines to photos of MPAs and works closely with CDFW to develop officer reference guides with these boundary photos. The CN has distributed approximately 430 reference guides to enforcement partners who have attended these trainings.

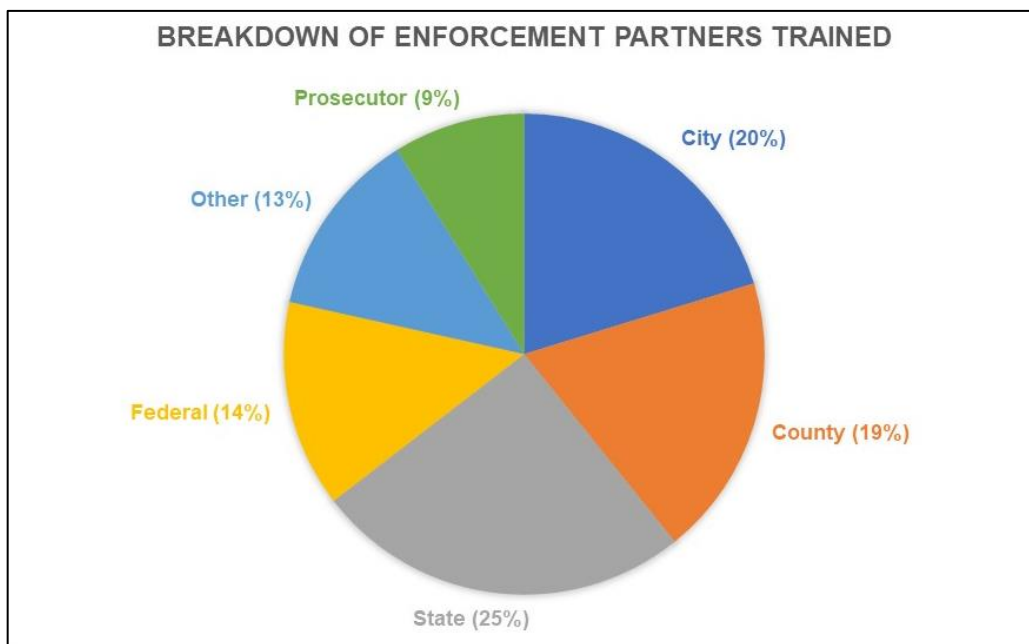


Image E4 (above) shows enforcement partners trained in MPAs broken down by their sector, including the following categories: State (25%), City (20%), County (19%), Federal (14%), Other (13%), and Prosecutor (9%).

Facilitation of Community Compliance Forums & Compliance Projects

The CN hosted Community Compliance Forums in 2019-20 and gathered stakeholder input on compliance concerns, potential factors contributing to noncompliance, and solutions (Images 15-17). These Forums informed the CN compliance projects (see Education and Outreach pillar).

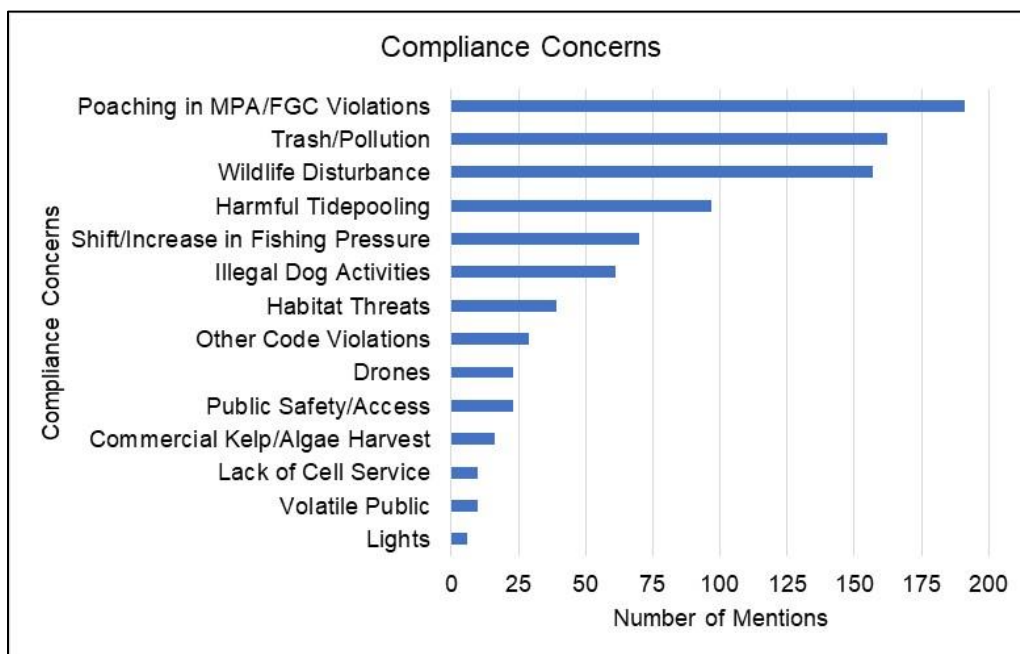


Image E6 (above) shows the top compliance concerns mentioned during all CN-hosted Community Compliance Forums. The top four were poaching in MPAs/Fish and Game Code (FGC) violations, trash/pollution, wildlife disturbance, and harmful tidepooling. *Similar charts will be produced for compliance concerns and solutions mentioned by local enforcement partners once this round of trainings is complete in fall of 2022.

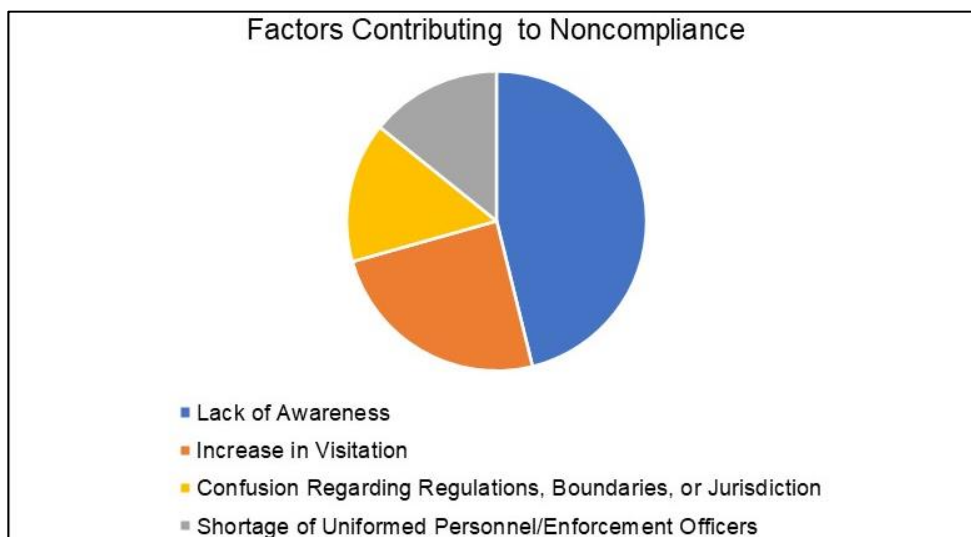


Image E7 (above) shows the factors considered by the public to be main factors contributing to noncompliance during CN-hosted Community Compliance Forums. A lack of awareness was the greatest contributing factor to noncompliance in MPAs, followed by an increase in visitation during COVID-19.

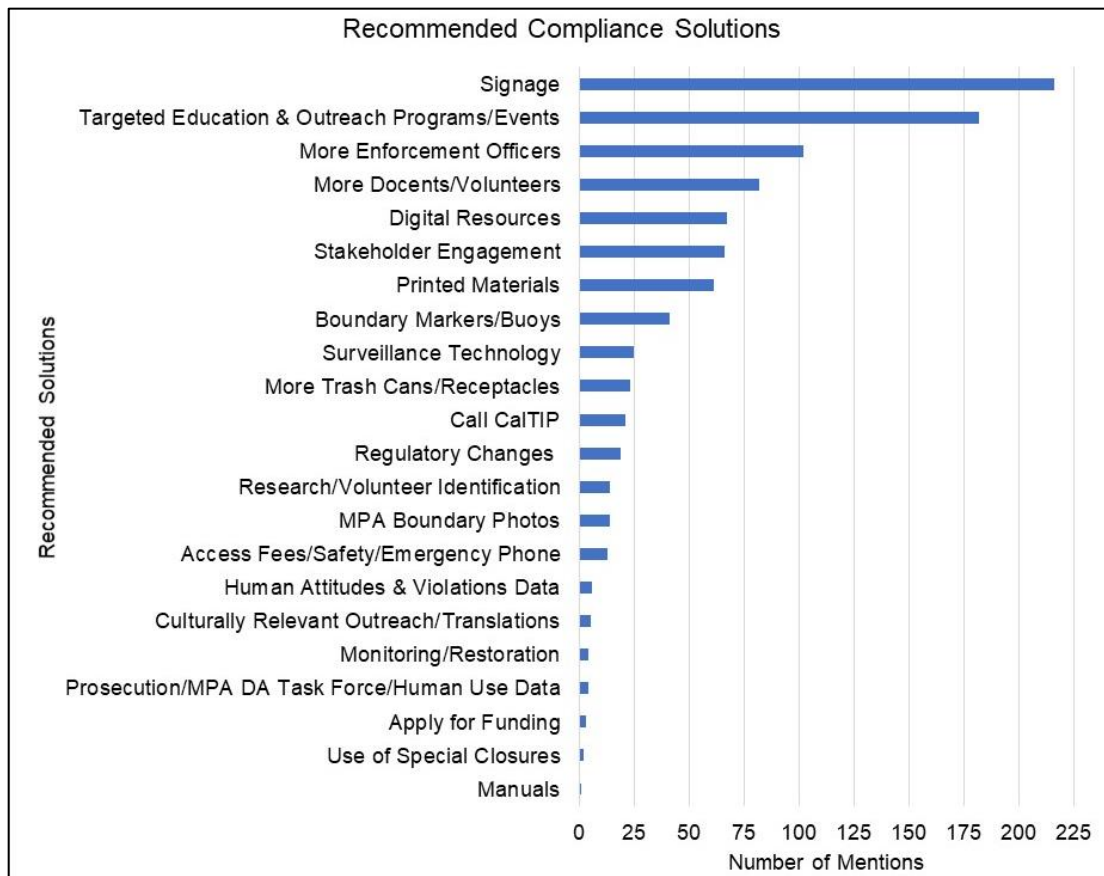


Image E8 (above) shows solutions identified during CN-hosted Community Compliance Forums. Implementing new or replacement universal/translated signage in strategic locations was the top solution. Other highly mentioned solutions include targeted education and outreach programs/events, more enforcement officers, and more docents/volunteers.

Participation in Prosecutor Training and Task Force

Collaboratively, the CN has propelled the creation of a MPA District Attorney (DA) Task Force, which aims to increase the awareness of and ensure consistency in the prosecution of MPA violations. Over 50 prosecutors and court officers are now trained in MPA violation prosecution and are engaged in increasing MPA compliance through the MPA Task Force, collaborative meetings, and MPA enforcement trainings. The CN hopes this will eventually result in increased tracking of the disposition of MPA cases.

Enforcement and Compliance: Progress Made Toward Addressing Challenges

1. Limited Participation from Allied Agency Officers in MPA Enforcement

- It can be challenging to convince local enforcement partners to assist with enforcing MPAs as it tends to be outside of what they consider their expertise.
 - Examples of actions taken toward resolution: CN has hosted multiple rounds of MPA trainings for officers with District Attorney participation to get officers more comfortable citing for MPA violations.
- There are often competing priorities (e.g., public safety) for agencies and high staff turnover, necessitating regular repeated training.
 - Examples of actions taken toward resolution: A pilot program with the City of San Diego Lifeguards has created an opportunity for an additional “MPA Patrol” shift, in addition to full safety staff coverage, to not take away from primary rescue duties.
 - Examples of actions taken toward resolution: State Parks and the CN are planning to host annual MPA trainings for State Parks officers and staff.

2. Incomplete Enforcement Action Dataset

- Officers do not always record and share their compliance data (contacts and cites) consistently with the CN.
 - Examples of actions taken toward resolution: The CN has created multiple ways for officers to log and share their stats, including an online form. CN staff is allocating more time fostering these relationships with enforcement partners to build trust.
- The MPA compliance data from enforcement partners is South Coast focused because of the dedicated efforts of the CN's South Coast Specialist.
 - Examples of actions taken toward resolution: A more comprehensive, statewide dataset will continue to develop with the onboarding a North Coast Specialist in February 2022.

3. Lack of CDFW Officers Available to Patrol or Respond to Violations

- A large portion of MPAs are located in rural and remote coastal areas, making enforcement challenging.
 - Examples of actions taken toward resolution: The CN connects enforcement partners with community members in remote and rural areas (e.g., MPAs on the north coast) to improve coverage and communication.
- There is a lack of officers available to address observed/reported violations during “off hours,” especially at night or early morning hours.
 - Examples of actions taken toward resolution: The CN collects input from community members and enforcement partners on observed violations and local patrol limitations. Members are encouraged to report to CalTIP and information gets passed on to local CDFW officers and, for more targeted patrols.

4. Gaining Compliance for Low Level Violations is an Additional Challenge

- Changing attitudes and behaviors (e.g., collection of shells within an MPA and wildlife disturbance) is difficult to do among those that do not want to change and are resistant to being told what to do.
 - Examples of actions taken toward resolution: The CN and partners are evaluating how to incorporate behavior change solutions into MPA management (e.g., Scripps-Rady Plastic Pollution Challenge and Respect Wildlife campaign).

Management Pillar Four – Policy and Permitting Expanded

Policy and Permitting: Progress Made Toward Addressing Challenges

1. There is a perception of inaction or long-timelines when it comes to making small adjustments to boundaries for more effective enforcement, changing incompatible policies, streamlining unclear regulations, and issuing permits.
 - Examples of actions taken toward resolution: CDFW staff participation on collaborative meetings to present on the Decadal Management Review helps clarify and manage expectations around the timeline for potential proposed changes to the MPA network.
2. There is confusion around where the CN stands as a communication hub and liaison to the state versus decision maker for adaptive management.
 - Examples of actions taken toward resolution: To streamline and improve communication efficiency between managing agencies and the Collaborative Network, the CN hosts forums and listening sessions on topics such as overlapping regulations, SCPs, and restoration.