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## Habitat Highlights: Marine Protected Areas and Santa Monica Bay

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## 2.2.3 Marine Protected Areas and Santa Monica Bay

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Marine Protected Areas (MPAs) are a valuable tool for both ecosystem protection and fishery management, and have been shown to be effective in replenishing depleted fish populations in other parts of California, the Florida Keys, New Zealand, and in close to 50 other countries around the world (Aburto-Oropeza et al. 2011, McClanahan and Mangi 2000, Kelly et al. 2002, Lester et al. 2009, Roberts et al. 2001, Gell and Roberts 2003).

California's state legislature enacted the Marine Life Protection Act (MLPA) in 1999, directing the California Department of Fish and Wildlife (CDFW, formerly California Department of Fish and Game) to design and manage a statewide network of MPAs to protect marine life and habitats, marine ecosystems, and marine natural heritage. Through the phased "MLPA Initiative" process, various interests ranging from fishing groups to conservationists designed 119 MPAs, which were implemented along California's Central Coast in 2007, the North Central Coast in 2010, and the North Coast in December 2012. The MPAs off Southern California's coast took effect on Jan. 1, 2012. Local organizations like The Bay Foundation and Heal the Bay were extremely active in the MLPA process, representing the conservation community in stakeholders groups and providing a science-based perspective, respectively.

Establishing these MPAs marks a historic moment to be celebrated: this is the first statewide network of underwater parks in the U.S. The statewide network of 119 MPAs lines our 1,100 miles of coast, protecting habitats, ocean ecosystems, and marine natural heritage. The final Southern California portion includes 50 MPAs encompassing 356 square miles of state waters and about 15% of the Southern California coastline.

Along the Los Angeles mainland coast, this network ([Figure 2.2.3-1](#)) includes:

- A marine reserve encompassing Point Dume in Malibu
- A partial take marine conservation area stretching from Zuma Beach through El Matador State Beach
- A no-take conservation area at Point Vicente in Palos Verdes
- A partial take marine conservation area at Abalone Cove

*Maps of the entire network and more information about regulations within MPAs and the MLPA planning process can be found online at <http://www.dfg.ca.gov/marine/mpa/>*

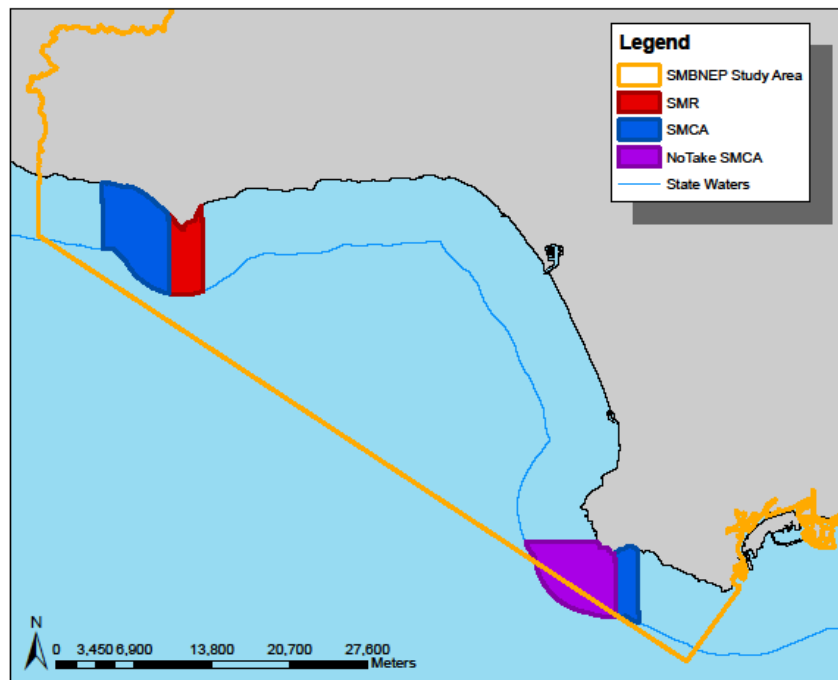
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<sup>1</sup> Heal the Bay

<sup>2</sup> The Bay Foundation

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Figure 2.2.3-1. Map of MPAs in Santa Monica Bay (courtesy: CDFW).



Despite the consensus-building efforts the state made during the MLPA Initiative process, balancing the various interests while meeting scientific guidelines proved challenging, and the MPA designation and adoption process was contentious. However, after the MPAs took effect, some unlikely partnerships have formed and efforts are being made to engage the community (both consumptive and non-consumptive users) in outreach, education, monitoring, and enforcement efforts. Below are some examples.

### Los Angeles MPA Collaborative

The Los Angeles MPA Collaborative is a part of the California MPA Collaborative Implementation Project, a statewide group of county-based councils dedicated to inter-agency communication and localized, more effective implementation of MPAs in California. The Los Angeles MPA Collaborative formed in 2013 and is composed of local municipalities, non-profit organizations, academic institutions, businesses, aquaria, and local, state, and federal government agencies involved with different aspects of MPA implementation. The Collaborative is dedicated to sharing existing resources and building bridges between the Los Angeles area community and CDFW regarding the unique needs and goals of MPAs in the Los Angeles region. The Collaborative has hosted local enforcement training and designed and installed initial MPA signage along the coast. Within several sub-committees, Collaborative members have been working on collaborative projects such as MPA boundary marker signs, fishing guides, a diversity outreach survey, MPA Watch monitoring, and MPA interpretive signage. One next step will be to engage members of the fishing community in the collaborative.

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### Community-based Monitoring and Outreach

Recognizing the connection between citizen science and stewardship, and the need for more monitoring to fill data gaps, a broad range of local groups have initiated community-based MPA monitoring programs to conduct research. Some examples include: trained volunteer SCUBA divers surveying marine life with Reef Check; fishermen working with marine ecologists to assess the impact of MPAs on California spiny lobsters (*Panulirus interruptus*); high school students monitoring tide pools through the LiMPETS program; aerial monitoring of boating activity by The Bay Foundation; boat-based monitoring of boating activity by Los Angeles Waterkeeper's MPA Watch program; and volunteers monitoring consumptive and non-consumptive human uses onshore and offshore in MPAs through Heal the Bay's MPA Watch program. These community-based scientific monitoring programs offer many benefits beyond data collection—they are cost-effective, build awareness, create community trust and transparency in the research, and promote stewardship among participants.

Get Involved or Learn More. Here are links to most of these community-based programs:

[Reef Check](#)

[LiMPETS](#)

[Heal the Bay's MPA Watch](#)

[LA Waterkeeper's MPA Watch](#)

### Enforcement

Cal-TIP, a confidential call-in line for the public to report illegal activities of poaching and polluting is a long-standing state effort to help protect California's biological resources. In 2015, the state expanded the Cal-TIP program to other platforms including a smart phone application, tip to text program, and online web form. In the 2012, the first year of MPAs in Southern California, 259 calls came in from the public reporting violations in California's MPAs. Public reporting is a form of community stewardship of our oceans, as it helps both our natural resources and CDFW's enforcement efforts. Although education efforts are key to the success of MPAs, reporting violations to CDFW is imperative as well, as CDFW has stated, "poaching activity directly affects the recovery and rebuilding rates of an area."

The Cal-TIP number is 1-888-DFG-CALTIP (888-334-2258). [Click here to learn more.](#)

### Initial MPA Monitoring Results

California's network of MPAs is being monitored by state and federal agencies, academics, citizen science groups, and others. Baseline monitoring of Southern California's MPAs took place in the initial three years following implementation. A second round of monitoring is planned for years 5-8 with the first status and trends report being released ten years after implementation. In addition to state-sanctioned monitoring efforts, a program to monitor boating activity, initiated by the Los Angeles Waterkeeper and now run by The Bay Foundation, began during the MPA Implementation process and can draw some initial before and after conclusions about behavior changes and compliance (Ford et al. 2013). Below are some of the findings specific to the Southern California mainland (Point Conception to the U.S. Mexican Border) Marine Protected Areas:

Baseline monitoring reports can be found here: <http://oceanspaces.org/home>

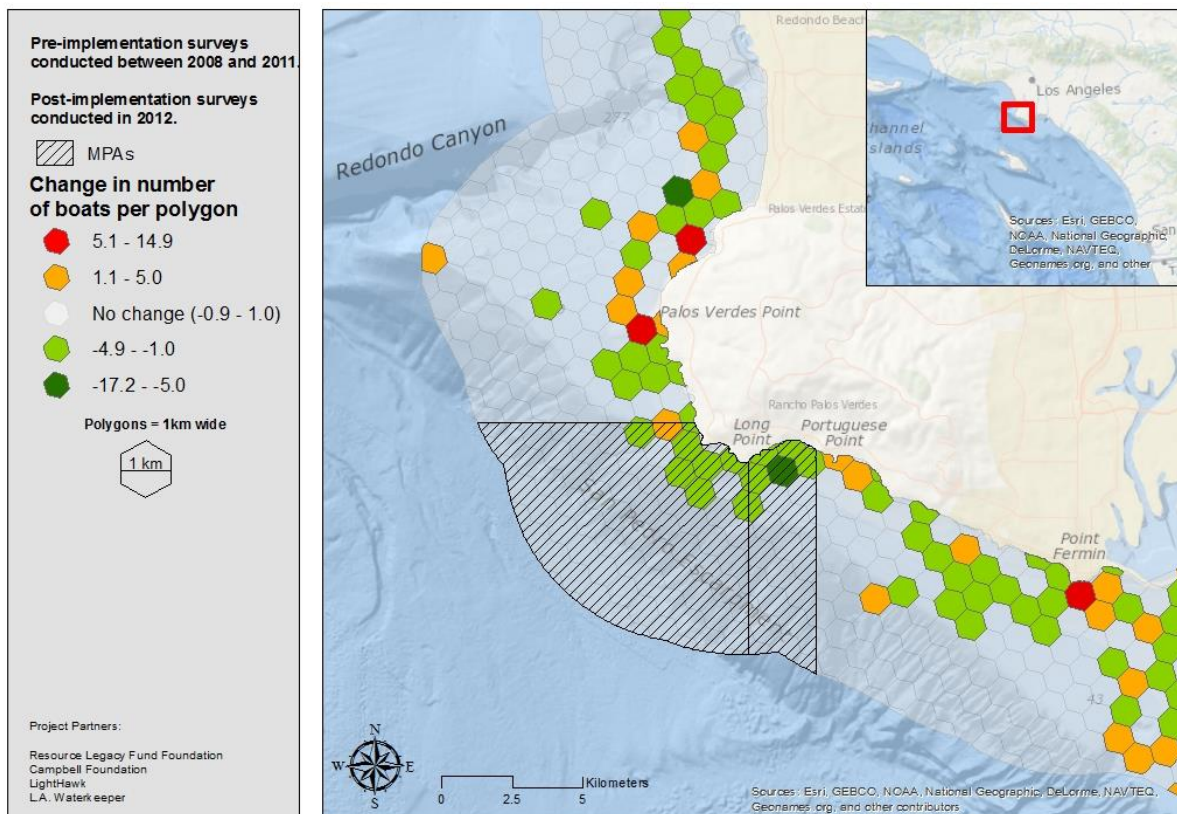
- The commercial fishing sectors that were observed displayed compliance with the MPA regulations with very few exceptions.

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- Recreational fishing sectors that were observed displayed greater non-compliance than commercial sectors, however this non-compliance is greater in San Diego and Orange Counties.
- While fishing vessels have shifted to areas outside the MPAs ([Figure 2.2.3-2](#)), these vessels are not displaying compaction due to displacement from MPAs.
- Commercial fishing vessels are not **fishing the line**. The data suggest that the opposite is the case; commercial fishing has shifted away from the borders of the MPAs within the study area.
- The majority of fishing effort in Southern California occurs on rocky reefs (75% pre-MPA and 73.1% post-MPA) and is concentrated on three reef complexes: Point Loma, La Jolla and Palos Verdes. These reef complexes represent 31% of the rocky reef along the mainland coast.

**Fishing the Line** refers to a fishing strategy in which fishermen place their gear on the borders of MPAs in hopes of catching marine life that may spill over from the MPA.

**Figure 2.2.3-2. Difference in boats fishing around Palos Verdes before and after MPA implementation (normalized for number of surveys flown).** Green hexagons indicate a decrease in the number of boats; Red/Orange hexagons indicate an increase in the number of boats. A shift from inside the MPAs to outside the MPAs is observed here. *Source: Ford et al. 2013.*



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### Conclusions

Residents of Santa Monica Bay care about the health of local marine life, regardless of whether they are fishermen, divers, or photographers. Communities are working together in creative ways to build stewardship for MPAs. Through long-term, concerted education, enforcement, and monitoring efforts, it is hoped that California's new MPAs will show long-lasting benefits for the coastal environment and California's ocean users.

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