



## MPA Watch: Citizen Science for Stewardship of Ocean Resources

MPA Watch is a citizen science initiative designed to monitor human uses of coastal natural resources by training and supporting volunteers in the collection of relevant, scientifically rigorous, and broadly accessible data. Data are meant to inform the management, enforcement, and science of California's marine protected areas (MPAs) and coastal regions, and allow us to see how human uses are changing as a result of MPA implementation. By involving local communities in this important work, MPA Watch programs inspire and empower stewardship, and educate community members about California's ocean ecosystems.

### Organizations currently training and supporting California MPA Watch volunteers:

- The Bay Foundation
- California Academy of Sciences
- California Ocean Science Trust
- Greater Farallones Association
- Green Info Network
- Heal the Bay
- Lighthawk
- Los Angeles Waterkeeper
- Marin Environmental Action Committee
- Orange County Coastkeeper
- The Otter Project
- Santa Barbara Channelkeeper
- West Marin Environmental Action Committee
- WILDCOAST

### MPA Watch Facts and Figures (2010-2015):

- Land-based surveys completed: 10,000+
- Boat-based surveys completed: 275+
- Volunteers actively engaged: 850+
- Number of MPAs Surveyed: 35
- Number of MPA Watch Control Sites: 53
- Geographic Span: Mendocino County – San Diego County

### What data are collected and how?

MPA Watch's citizen scientist volunteers observe California's beaches and coastal waters, recording all offshore and onshore coastal activities within specially-designed transects. Volunteers are provided with field manuals and trained to recognize different types of activities, using binoculars to view activities offshore, and to record what they see on field data collection sheets. Volunteers record consumptive activities such as commercial fishing, shore fishing, and resource collection, as well as non-consumptive activities such as swimming, surfing, and general beach recreation. Most MPA Watch surveys are land-based and are completed on foot, however there are also boat-based and aerial surveys taking place in Southern California.

### Who uses the data and results?

Potential users of MPA Watch data span academia, natural resource management agencies, and local communities. MPA Watch currently engages with the California Department of Fish and Wildlife, California State Parks, The California MPA Collaborative Network and others to ensure that MPA Watch data is part of the MPA monitoring process. Each MPA Watch program currently publishes their own local reports, which can be found by contacting any of the organizations





listed above. Regional reports are expected to be published in the near future.

### Statewide Coordination of MPA Watch Programs

All MPA Watch programs employ a consistent approach to measuring human uses of coastal and ocean resources, utilizing a standardized methodology for collecting and recording data. Despite some small differences across programs, such as varying program sizes and regional characteristics, standardization of the California MPA Watch network’s methodology and objectives enables all MPA Watch programs to produce reliable data that can be used for rigorous scientific study.

In collaboration with the California Ocean Science Trust, the MPA Watch network has developed and standardized best practices, guidelines, and protocols that have been compiled in a ‘California MPA Watch manual’. The manual, which can be found at [www.MPAWatch.org](http://www.MPAWatch.org), serves as a comprehensive guide to all current and potential MPA Watch programs and volunteers.

### Program Vetted by Scientists and Potential Users

In order to maximize the effectiveness and integrity of MPA Watch protocols and data, MPA Watch has partnered and sought input from several advisers, including members of the scientific community and potential data users. Through these collaborations MPA Watch has ensured that adopted methodologies adhere to scientific guidelines, while also providing data that are relevant to coastal managers, academics, and enforcement officers. MPA Watch continues to engage with both the scientific community and potential data users to ensure that the MPA Watch program is professionally administered.

### Centralized Information Management System

Once a survey has been completed in the field, it is submitted to a centralized information management system (IMS) for review, which serves as part of the quality assurance/quality control (QA/QC) process. During the online submission, certain meta-data fields are automatically input, including tide levels and weather attributes. Once submitted, a program manager then reviews the online data in comparison with the completed field data sheet, and contacts the volunteer citizen scientist with any questions regarding unusual activity counts or interesting findings. At the conclusion of the review period the program manager is able to approve the data submission and it is uploaded to the IMS where it is then available for download and analysis.

### More Information and Data Access

For partnership opportunities or to get involved with MPA Watch programs, please contact any of the organizations listed above or visit [www.MPAWatch.org](http://www.MPAWatch.org) for more information.

If you are interested in working with MPA Watch data, summary data can be found on the MPA Watch website’s mapping page at [www.mpawatch.org/site/mpamap](http://www.mpawatch.org/site/mpamap). This webpage will allow you to explore MPA Watch sites, find locations that currently have data available, and view some simple aggregations. To learn more about MPA Watch technical coordination or to request access to raw data, please contact the California MPA Watch Coordinator at [tarrant@wildcoast.net](mailto:tarrant@wildcoast.net).

