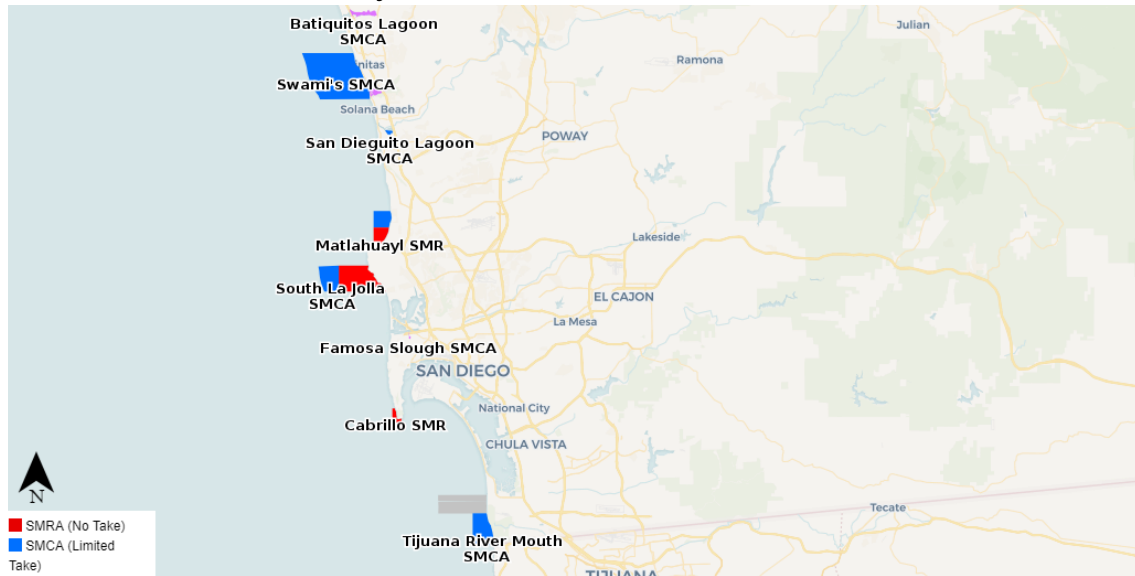


Marine Protected Area (MPA) Watch Regional Report San Diego County January 1, 2021 - December 31, 2021



MPA Watch is a statewide collaborative effort to collect critical human use data to enhance the management and conservation of marine protected areas (MPAs). MPA Watch data informs the management, enforcement, and science of California's MPAs and allows us insight on 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 California communities about ocean ecosystems. MPA Watch trains volunteers to observe and collect unbiased data on coastal and marine resource use. The San Diego Marine Protected Area Watch Program, organized by WILD COAST, engages community scientists in five MPAs in San Diego County.

Executive Summary

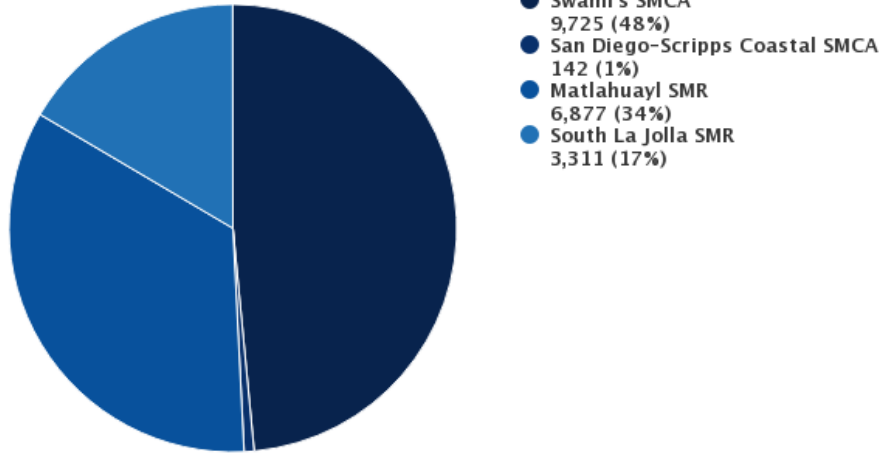
- In the wake of COVID-19 guidelines and restrictions impacting MPA Watch in 2020, there has been a return to regular operations in 2021.
- Compared to the year 2020, use of MPAs has largely stabilized to resemble levels that are consistent with the baseline rate of use, with the most significant exceptions being use rates at the San Diego-Scripps State Marine Conservation Area (SMCA) and the Tijuana River Mouth SMCA.
- While over 99% of reported activities were non-consumptive, volunteers report potential poaching is still a problem, especially in South La Jolla SMR.
- There have been recurring issues with beach closures at the Tijuana River Mouth SMCA due to poor water quality resulting from sewage contamination.

Human Use of MPAs January - December 2021

Overview

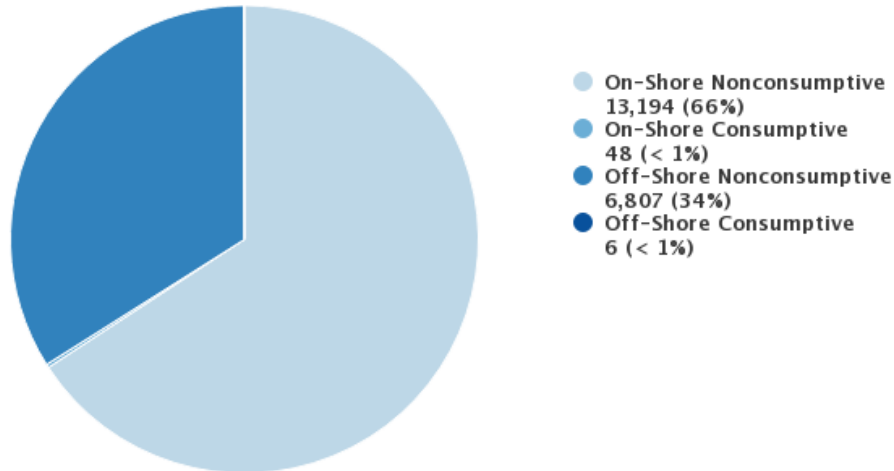
Top 4 MPAs by All Activity

January 1, 2021 - December 31, 2021
20,055 total activity events



All MPAs Combined

January 1, 2021 - December 31, 2021
20,055 activity events



Activity Classifications

On-Shore - Activities that take place on a sandy or rocky beach. Excludes bluffs, trails, sea walls, parking lots, or other man-made structures. Includes recreation, tidepooling, shore-based fishing, etc.

Off-Shore - Activities that take place offshore, typically in knee-deep water or deeper. Includes surfing, SCUBA diving, kayaking, boat fishing, etc.

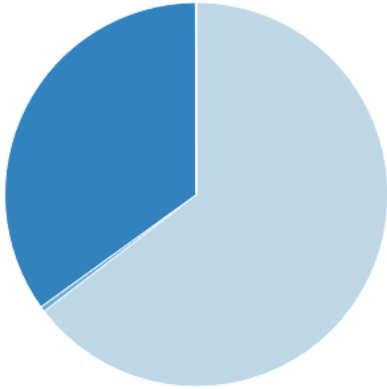
Consumptive - An activity in which a natural resource (i.e. fish, kelp, shells) is being collected.

Non-Consumptive - An activity in which a natural resource is not collected.

Activity by MPA

Swami's SMCA

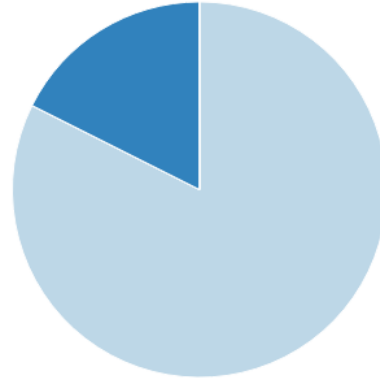
January 1, 2021 - December 31, 2021
9,725 activity events



- On-Shore Nonconsumptive
6,284 (65%)
- On-Shore Consumptive
43 (< 1%)
- Off-Shore Nonconsumptive
3,393 (35%)
- Off-Shore Consumptive
5 (< 1%)

San Diego-Scripps Coastal SMCA

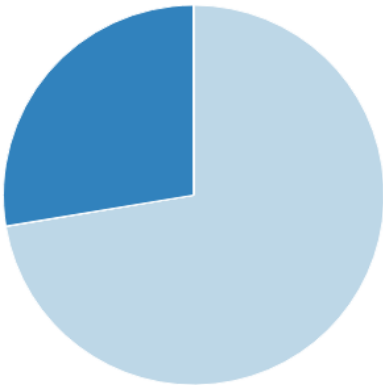
January 1, 2021 - December 31, 2021
142 activity events



- On-Shore Nonconsumptive
117 (82%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
25 (18%)
- Off-Shore Consumptive
0 (< 1%)

Matlahuayl SMR

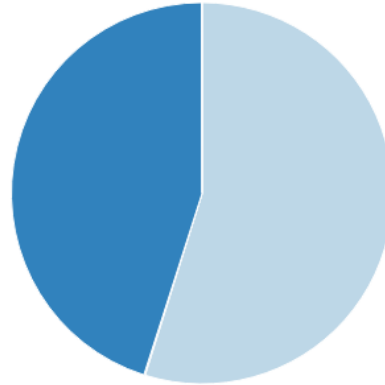
January 1, 2021 - December 31, 2021
6,877 activity events



- On-Shore Nonconsumptive
4,977 (72%)
- On-Shore Consumptive
2 (< 1%)
- Off-Shore Nonconsumptive
1,897 (28%)
- Off-Shore Consumptive
1 (< 1%)

South La Jolla SMR

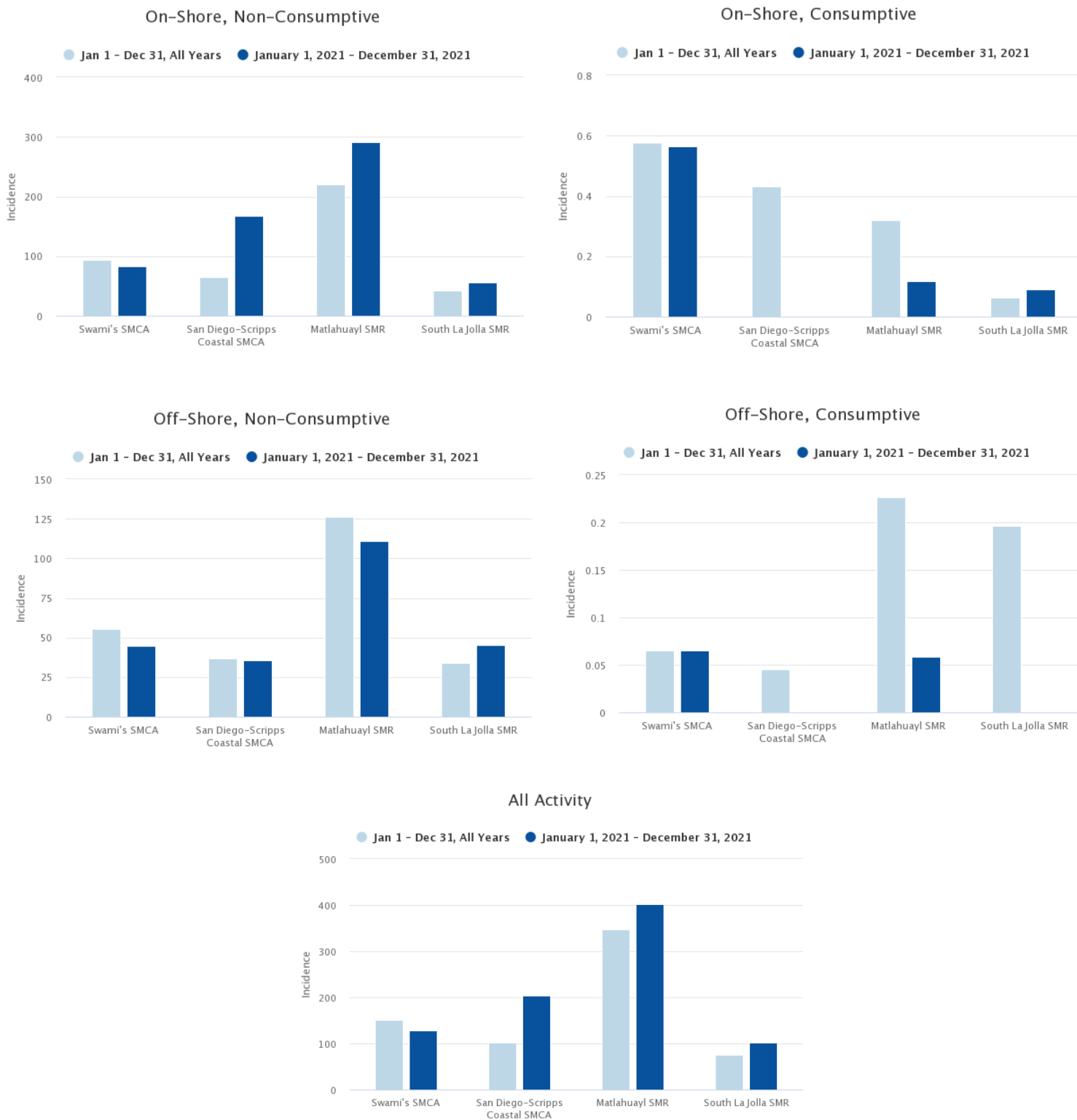
January 1, 2021 - December 31, 2021
3,311 activity events



- On-Shore Nonconsumptive
1,816 (55%)
- On-Shore Consumptive
3 (< 1%)
- Off-Shore Nonconsumptive
1,492 (45%)
- Off-Shore Consumptive
0 (< 1%)

*The chart for Tijuana River Mouth SMCA has been excluded due to lack of surveys conducted at that location

Activity Incidence by MPA



The above charts show incidence values for each MPA monitored by MPA Watch in San Diego County. Incidence is calculated as number of activities recorded divided by total survey-miles.

Activity Incidence by MPA

MPA	On-Shore			
	Non-Consumptive		Consumptive	
	Jan 1 Dec 31 All Years	Jan 1, 2021 through Dec 31, 2021	Jan 1 Dec 31 All Years	Jan 1, 2021 through Dec 31, 2021
Swami's SMCA	94.2	82.4	0.6	0.6
San Diego-Scripps Coastal SMCA	64.3	167.1	0.4	0.0
Matlahuayl SMR	220.9	291.1	0.3	0.1
South La Jolla SMR	41.7	55.4	0.1	0.1
All MPAs Combined	77.6	104.0	0.9	0.4

MPA	Off-Shore			
	Non-Consumptive		Consumptive	
	Jan 1 Dec 31 All Years	Jan 1, 2021 through Dec 31, 2021	Jan 1 Dec 31 All Years	Jan 1, 2021 through Dec 31, 2021
Swami's SMCA	55.4	44.5	0.1	0.1
San Diego-Scripps Coastal SMCA	36.5	35.7	0.0	0.0
Matlahuayl SMR	126.5	110.9	0.2	0.1
South La Jolla SMR	34.2	45.5	0.2	0.0
All MPAs Combined	40.3	53.6	0.2	0.0

MPA	Total Combined	
	Jan 1 Dec 31 All Years	Jan 1, 2021 through Dec 31, 2021
	Swami's SMCA	150.3
San Diego-Scripps Coastal SMCA	101.3	202.9
Matlahuayl SMR	348.0	402.2
South La Jolla SMR	76.1	100.9
All MPAs Combined	119.0	158.0

The above table shows incidence values for each MPA monitored by MPA Watch in San Diego County. Incidence is calculated as number of activities recorded divided by total survey-miles

Notes on Calculating Incidence

The baseline rate for the reporting period was calculated by summing the total use count for each category during the same period from each previous year and dividing this value by the transect miles surveyed at each site. The miles surveyed were calculated by first identifying the length of each transect for all the MPA's in question and multiplying the length of the transect by the number of surveys that had been taken along that transect during the same time period. For MPA's with multiple transects, the total distance traveled for each transect within the MPA were summed together to get the total miles surveyed within that MPA.

COVID-19

Following the disruption to MPA Watch surveys and trainings last year due to the outbreak of COVID-19 and ensuing restrictions that were present for much of 2020, in 2021 there has been a gradual return to normalcy. With beaches open and left without restrictions, volunteers are free to conduct surveys as they had in the past. MPA Watch trainings are being conducted in person again, and while masks are not mandatory in outdoor spaces it is still recommended that participants adhere to social distancing protocols and wear a mask if they are not vaccinated.

Breakdown by MPA

Swami's State Marine Conservation Area

Between the months of January and December 2021, San Diego MPA Watch data shows a rate of 127.5 total use count per total miles surveyed in the Swami's State Marine Conservation Area (SMCA). This is a 15.2% decrease compared to the rate calculated from the data collected by MPA Watch volunteers January - December in previous years.

People observed in the MPA were primarily taking part in non-consumptive activities both on and off-shore, like beach and ocean recreation. This accounted for 99.5% of the activities logged in MPA Watch surveys. The remaining 0.5% of human use consisted of onshore and offshore consumptive activities. According to volunteers, recurring issues with the illegal take and disturbance of tide pool organisms continues to be a problem during low tides.

San Diego-Scripps State Marine Conservation Area

Between the months of January and December 2021, San Diego MPA Watch data shows a rate of 202.9 total use count per total miles surveyed in the San Diego-Scripps SMCA. This is a 100.3% increase in human use within the MPA compared to the rate calculated from the data collected by MPA Watch volunteers between the months of January and December in previous years.

People in the MPA were primarily taking part in both on and offshore, non-consumptive activities. These activities accounted for 100% of the observations logged in MPA Watch surveys. No consumptive activities were recorded during the reporting period. According to volunteers, illegal hook and line fishing from shore continues to be commonly observed. Regulations allow for take of pelagic baitfish and gear used by anglers in this area is often specific to larger inshore species.

Matlahuayl State Marine Reserve

Between the months of January and December 2021, San Diego MPA Watch data shows a rate of 402.2 total use count per total miles surveyed in the Matlahuayl State Marine Reserve (SMR). This is a 15.6% increase in human use compared to the rate calculated from the data collected by MPA Watch volunteers between the months of January and December in previous years.

People in the MPA were primarily taking part in both on and offshore, non-consumptive activities. This accounted for 99.06% of the activities logged in MPA Watch surveys. The remaining 0.04% of human use consisted of onshore and offshore consumptive activities. WILD Coast staff have previously observed kayakers fishing within the Matlahuayl SMR, and according to volunteers there are occasional take violation in the reserve including the collection of biota and illegal fishing from the shore.

South La Jolla State Marine Reserve

Between the months of January and December of 2021, San Diego MPA Watch data shows a use rate of 100.9. This is a 32.6% increase in human use within the MPA compared to the rate calculated from the data collected by MPA Watch volunteers between the months of January and December in previous years.

People in the MPA were primarily taking part in both on and offshore, non-consumptive activities. These activities accounted for 99.9% of the observations logged in MPA Watch surveys. The remaining 0.1% of use consisted of onshore consumptive activities. While current MPA Watch data shows very few potential violations in recent months, and none offshore consumptive use, WILD Coast staff has seen illegal fishing activity (aka poaching) in the South La Jolla SMR. Fish and wildlife crimes are reported to the California Department of Fish and Wildlife via the CalTip hotline. Observed illegal fishing activities are cross-referenced with the M2 program that is run from Bird Rock to monitor the MPA.

Tijuana River Mouth State Marine Conservation Area

Between the months of January and December of 2021, there were no surveys conducted by San Diego MPA Watch in the Tijuana River Mouth SMCA. This is largely due to the fact that throughout 2021 there have been several beach closures as a result of high bacteria counts caused by sewage contamination flowing out of the Tijuana River.

Potential Violations

Rate of consumptive activities observed remains relatively low in all MPAs surveyed, accounting for less than 1% of all observations recorded. Anecdotal evidence suggests rates may be higher than reflected in the data. According to volunteers, recurring issues with the illegal take and disturbance of tide pool organisms in Swami's SMCA is an ongoing problem during low tides. Potentially illegal hook and line fishing from shore is commonly observed in San Diego – Scripps Coastal SMCA. Also, while current MPA Watch data does not show many potential violations in recent months, WILDCOAST staff has seen illegal fishing activity (aka poaching) in the South La Jolla SMR. Even if the noncompliance rate is low, it is important to note that any illegal take from MPAs jeopardizes the success of the MPA and health of the ecosystems which they protect.

Next Steps

MPA Watch is submitting reports for use in the 2022 decadal management review of MPAs. This review will determine the effectiveness of MPAs as conservation tools. MPA Watch data will be critical in displaying how MPAs are being used and where more enforcement may be needed to ensure MPAs are achieving their goals.

WILDCOAST is working to implement boat based MPA Watch surveys into our data reporting to monitor human use within our MPAs. Once we are able to publish that data we will be able to more accurately represent offshore usage within our MPAs. In San Diego County WILDCOAST is working to increase outreach for MPA Watch and increase the number of volunteers we have collecting human use data within our local MPAs.

WILDCOAST has been conducting public outreach to spread awareness surrounding tide pools that fall under MPA protections. These efforts are focused primarily on the tide pools located within MPA boundaries located at San Diego-Scripps SMCA and Swami's SMCA.

MPA Watch intends to collaborate with the California Department of Fish and Wildlife (CDFW) to distribute MPA Watch reports to regional managers in order to improve the management and enforcement of MPAs. MPA Watch is also looking to expand its network of partner organizations to enhance the scale and scope of MPA monitoring across California. MPA Watch will be making our human use data available on our website to make it accessible to partners, resource agencies, municipalities, and other interested parties. One of the hopes of MPA Watch is that volunteers and community members help spread knowledge and awareness of MPAs to the communities that surround them, inspiring marine stewardship in our populations.

Additional Information

For additional information on MPA Watch, including survey sites, participating organizations, protocols and datasheets, media kit, and how to get involved, please visit mpawatch.org. Connect with MPA Watch on social media @MPAWatchOrg.

For additional information regarding MPAs and regulations specific to the various classifications of MPAs please visit wildlife.ca.gov/MPAs. If you see an activity that violates MPA regulations, please call CalTip to report the violation at (888) 334-2258.

For more information about the work WILDCOAST does to conserve California's MPAs and other conservation projects please visit wildcoast.org.