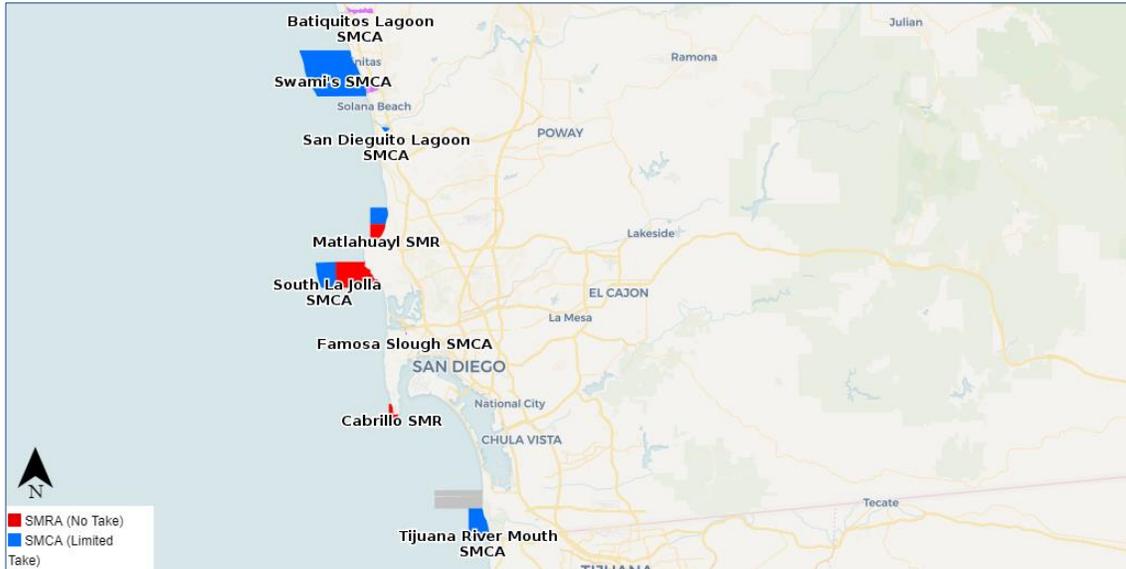




Marine Protected Area (MPA) Watch Regional Report San Diego County January 1, 2020 – December 31, 2020



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 (MPA) Watch Program, organized by WILD COAST, engages community scientists in five MPAs in San Diego County.

Executive Summary

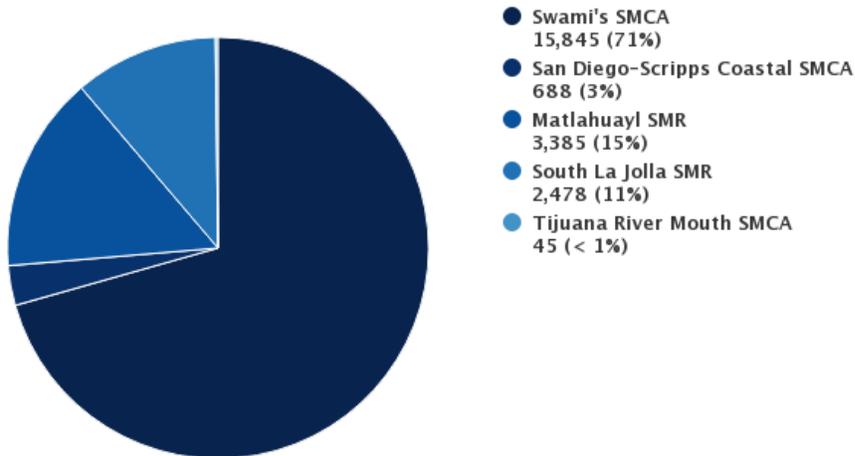
- Following local, state, and federal health guidelines regarding COVID-19, San Diego County's MPA Watch program suspended data collection from March 16, 2020 - April 27, 2020. Current volunteers resumed data collection on April 28, 2020. In-person trainings for new volunteers were suspended starting March 16, 2020 to adhere to physical distancing guidelines. Virtual trainings were held starting in September 2020.
- A substantial increase in use was reported across all MPAs except Matlahuayl SMR, possibly due to an increase in use following the lift of the stay-at-home order.
- While 99.6% of reported activities were non-consumptive, volunteers report potential poaching is still a problem, especially in South La Jolla SMR.

Human Use of MPAs January - December 2020

Overview

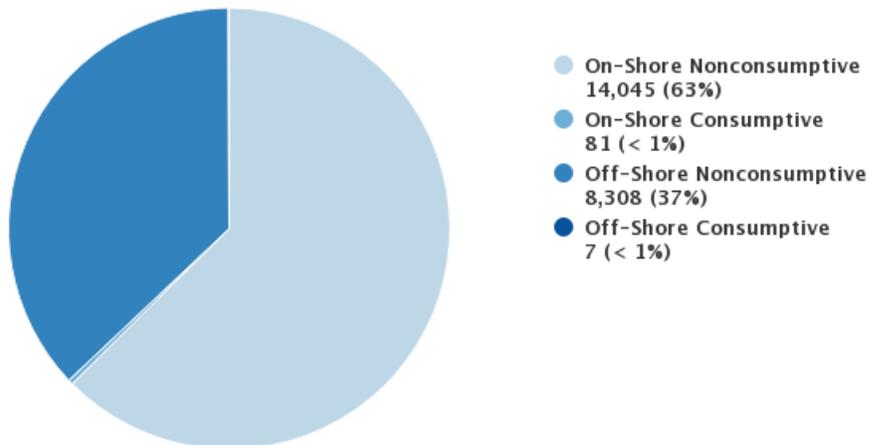
Top 5 MPAs by All Activity

January 1, 2020 - December 31, 2020
22,441 total activity events



All MPAs Combined

January 1, 2020 - December 31, 2020
22,441 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.

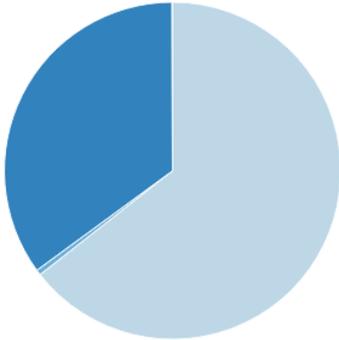
Consumptive - An activity in which a natural resource (i.e. fish, kelp, shells) is being collected.

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

Activity by MPA

Swami's SMCA

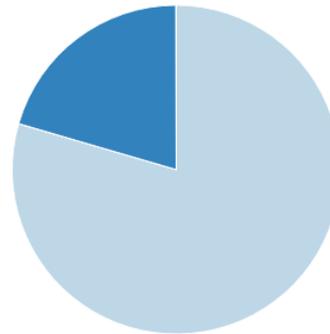
January 1, 2020 – December 31, 2020
15,845 activity events



- On-Shore Nonconsumptive
10,211 (64%)
- On-Shore Consumptive
79 (< 1%)
- Off-Shore Nonconsumptive
5,552 (35%)
- Off-Shore Consumptive
3 (< 1%)

San Diego–Scripps Coastal SMCA

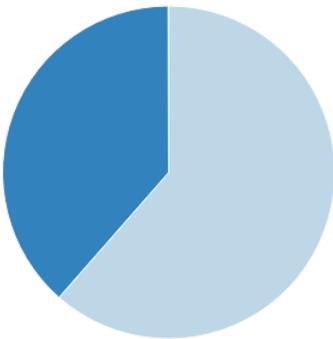
January 1, 2020 – December 31, 2020
688 activity events



- On-Shore Nonconsumptive
547 (80%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
141 (20%)
- Off-Shore Consumptive
0 (< 1%)

Matlahuayl SMR

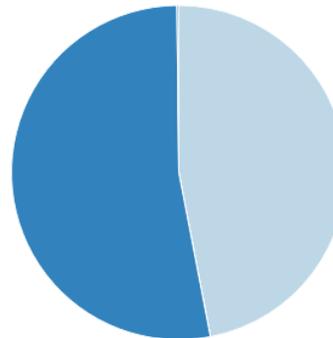
January 1, 2020 – December 31, 2020
3,385 activity events



- On-Shore Nonconsumptive
2,081 (61%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
1,304 (39%)
- Off-Shore Consumptive
0 (< 1%)

South La Jolla SMR

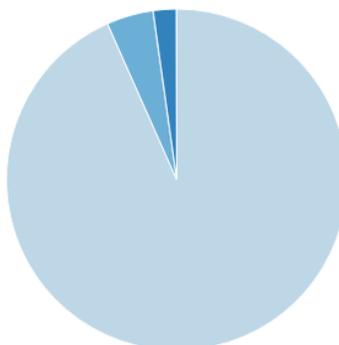
January 1, 2020 – December 31, 2020
2,478 activity events



- On-Shore Nonconsumptive
1,164 (47%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
1,310 (53%)
- Off-Shore Consumptive
4 (< 1%)

Tijuana River Mouth SMCA

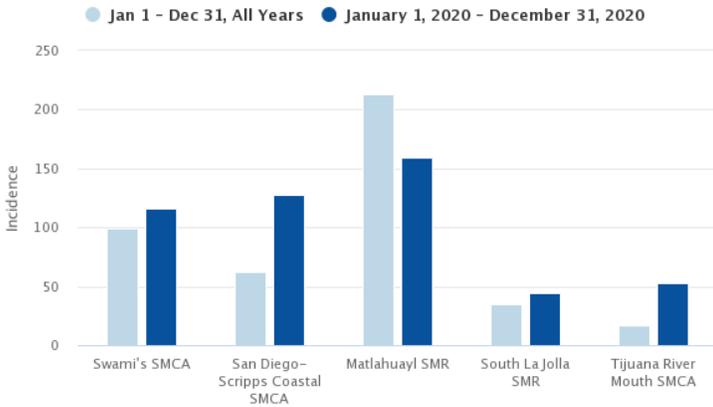
January 1, 2020 – December 31, 2020
45 activity events



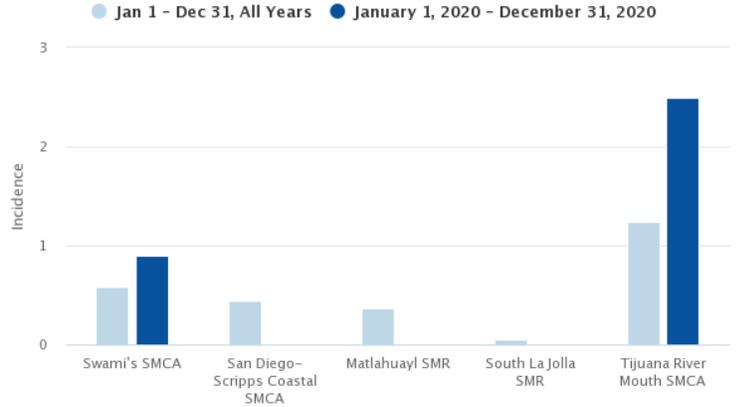
- On-Shore Nonconsumptive
42 (93%)
- On-Shore Consumptive
2 (4%)
- Off-Shore Nonconsumptive
1 (2%)
- Off-Shore Consumptive
0 (< 1%)

Activity Incidence by MPA

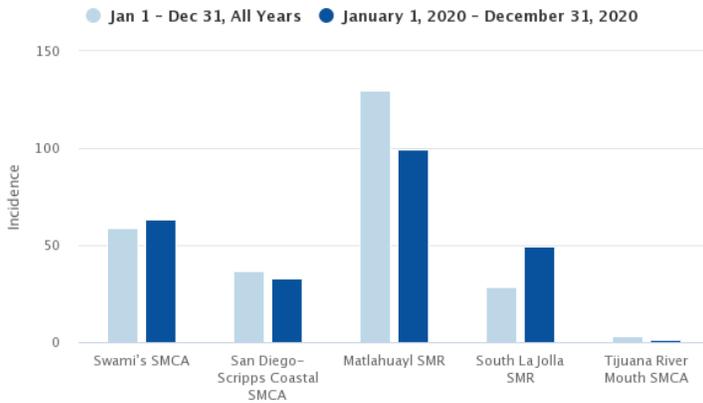
On-Shore, Non-Consumptive



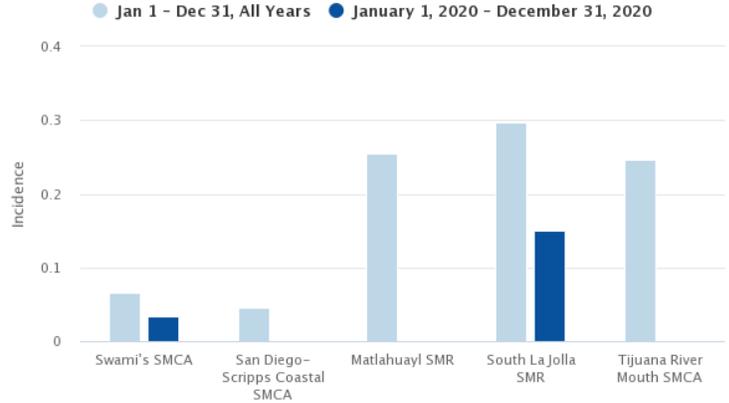
On-Shore, Consumptive



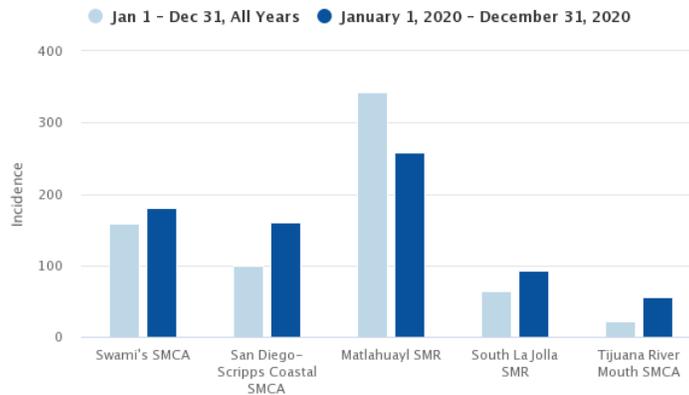
Off-Shore, Non-Consumptive



Off-Shore, Consumptive



All Activity



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, 2020 through Dec 31, 2020	Jan 1 Dec 31 All Years	Jan 1, 2020 through Dec 31, 2020
Swami's SMCA	98.8	116.2	0.6	0.9
San Diego-Scripps Coastal SMCA	62.7	127.2	0.4	0.0
Matlahuayl SMR	212.8	158.9	0.4	0.0
South La Jolla SMR	34.6	43.9	0.0	0.0
Tijuana River Mouth SMCA	16.9	52.5	1.2	2.5
All MPAs Combined	69.9	105.9	0.8	0.6

MPA	Off-Shore			
	Non-Consumptive		Consumptive	
	Jan 1 Dec 31 All Years	Jan 1, 2020 through Dec 31, 2020	Jan 1 Dec 31 All Years	Jan 1, 2020 through Dec 31, 2020
Swami's SMCA	59.1	63.2	0.1	0.0
San Diego-Scripps Coastal SMCA	36.6	32.8	0.0	0.0
Matlahuayl SMR	129.9	99.5	0.3	0.0
South La Jolla SMR	28.4	49.4	0.3	0.2
Tijuana River Mouth SMCA	2.9	1.3	0.2	0.0
All MPAs Combined	39.7	62.7	0.2	0.1

MPA	Total Combined	
	Jan 1 Dec 31 All Years	Jan 1, 2020 through Dec 31, 2020
	Swami's SMCA	158.6
San Diego-Scripps Coastal SMCA	99.7	160.0
Matlahuayl SMR	343.3	258.4
South La Jolla SMR	63.4	93.5
Tijuana River Mouth SMCA	21.3	56.3
All MPAs Combined	110.5	169.2

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

San Diego County Beach Closures due to COVID-19 (some local variations may occur)

March 19, 2020 Encinitas closes all beach parking lots

March 23, 2020 Carlsbad and Del Mar close beaches

March 24, 2020 All beaches in City of San Diego closed

April 3, 2020 All beaches in San Diego County closed

April 27, 2020

-Beaches and shorelines: Only walking and running allowed. No stopping, sitting or lying down.

-Oceans: Swimming, surfing, kayaking and single-person paddling allowed.

-Bays: Single-household recreational boating. Fishing is allowed, but not from the shoreline.

-Closed: Boardwalks, piers, parking lots and Fiesta Island

-Not allowed anywhere: Gatherings and non-physical distancing activities

June 2, 2020 Beaches reopen for “passive activities” including sitting and sunbathing

June 8, 2020 Recreational boating and fishing resumes

June 9, 2020 Piers and beach boardwalks reopen

June 17, 2020 Most beach parking lots reopen

July 1, 2020 All State Beaches and most other beach parking lots closed again

July 6, 2020 Most beach parking lots re-open.

From July 6 through December 31, 2020 most beaches and beach parking lots remained open with the following modifications: Active sports, sitting, and lying down with household members are allowed. Walking, running, swimming, surfing, paddleboarding, kayaking, and snorkeling are allowed. Face coverings are required if within six feet of others not in your household.

Following local, state, and federal health guidelines regarding COVID-19, San Diego County's MPA Watch program suspended data collection from March 16, 2020 - April 27, 2020. Current volunteers resumed data collection on April 28, 2020. In-person trainings for new volunteers were suspended starting March 16, 2020 to adhere to physical distancing guidelines. One in-person training was held in September 2020, before physical distancing guidelines were put in place for groups again. Trainings have been held virtually since September 2020

All sites except Matlahuayl SMR saw an increase in use compared to baseline rates, most notably immediately after the initial COVID-19 beach closures were lifted. During the first half of the reporting period (January – June 2020) this may be an artifact of low sample size; however, data from the second half of the year support an increase in activity. Additionally, volunteers anecdotally report large crowds at open beaches following lifting of COVID-19 restrictions, especially during the period in which indoor spaces remained closed, which may partially explain the increased usage reported.

Breakdown by MPA

Swami's State Marine Conservation Area

Between the months of January and December 2020, San Diego MPA Watch data shows a rate of 180.3 total use count per total miles surveyed in the Swami's State Marine Conservation Area (SMCA). This is a 13.7% increase 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 64% of the activities logged in MPA Watch surveys. Off-shore non-consumptive activities accounted for 35% of observed activities – a substantial increase from the previous reporting period, likely due to the lifting of COVID-19 restrictions surrounding boating and in-water recreation. The remaining 1% of human use was comprised of onshore and offshore consumptive activities. According to volunteers, recurring issues with the illegal take and disturbance of tidepool organisms continues to be a problem during low tides.

San Diego-Scripps State Marine Conservation Area

Between the months of January and December 2020, San Diego MPA Watch data shows a rate of 160.0 total use count per total miles surveyed in the San Diego-Scripps SMCA. This is a 60.5% 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 2020, San Diego MPA Watch data shows a rate of 258.4 total use count per total miles surveyed. This rate is a 24.7% reduction compared the baseline rate of use in the Matlahuayl State Marine Reserve (SMR).

People in the MPA were only engaging in on and offshore, non-consumptive activities. This accounted for 100% of the activities logged in MPA Watch surveys. While not

reflected in the data for 2020, it is important to note that there is a history of violations within the Matlahuayl SMR. WILDCOAST staff have previously observed kayakers fishing within the Matlahuayl SMR, and according to volunteers there are occasional take violations 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 2020, San Diego MPA Watch data shows a use rate of 93.5. This is a 47.5% 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. While current MPA Watch data does not show any potential violations in recent months, WILDCOAST staff has observed illegal fishing activity (aka potential 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 through 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 2020, San Diego MPA Watch data shows a rate of use of 56.3 total use count per total miles surveyed. This is 250% of the baseline rate from 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 93.4% of the activities logged in MPA Watch surveys. The remaining 6.6% of human use was comprised of onshore and offshore consumptive activities. Tijuana River Mouth SMCA allows for the take of certain species by hand-held dip net. While reported violations are uncommon in the Tijuana River Mouth SMCA, there is a serious problem with pollution in the area. Dumping in the Tijuana River and sewage runoff result in tons of pollution entering the ocean and the local MPA every year. The issue of dumping contributes tons of solid waste, such as plastics, tires, and much more; into the ocean each year. Alongside solid waste, sewage runoff flowing out of the river elevates bacteria counts in the ocean to unsafe levels for offshore recreation in nearby coastal communities, ranging as far north as San Diego.

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 tidepool organisms in Swami's SMCA and San Diego – Scripps Coastal 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 any potential violations in recent months, WILD Coast 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

WILD Coast 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 accurately represent offshore usage within our MPAs. In San Diego County WILD Coast is working to increase outreach for MPA Watch and increase the number of volunteers we have collecting human use data within our local MPAs.

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

MPA Watch is currently working with a postdoctoral scholar from the Center for Community and Citizen Science, Department of Environmental Science and Policy, at University of California Davis to model MPA Watch data. These models are expected to be available in 2022.

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.

