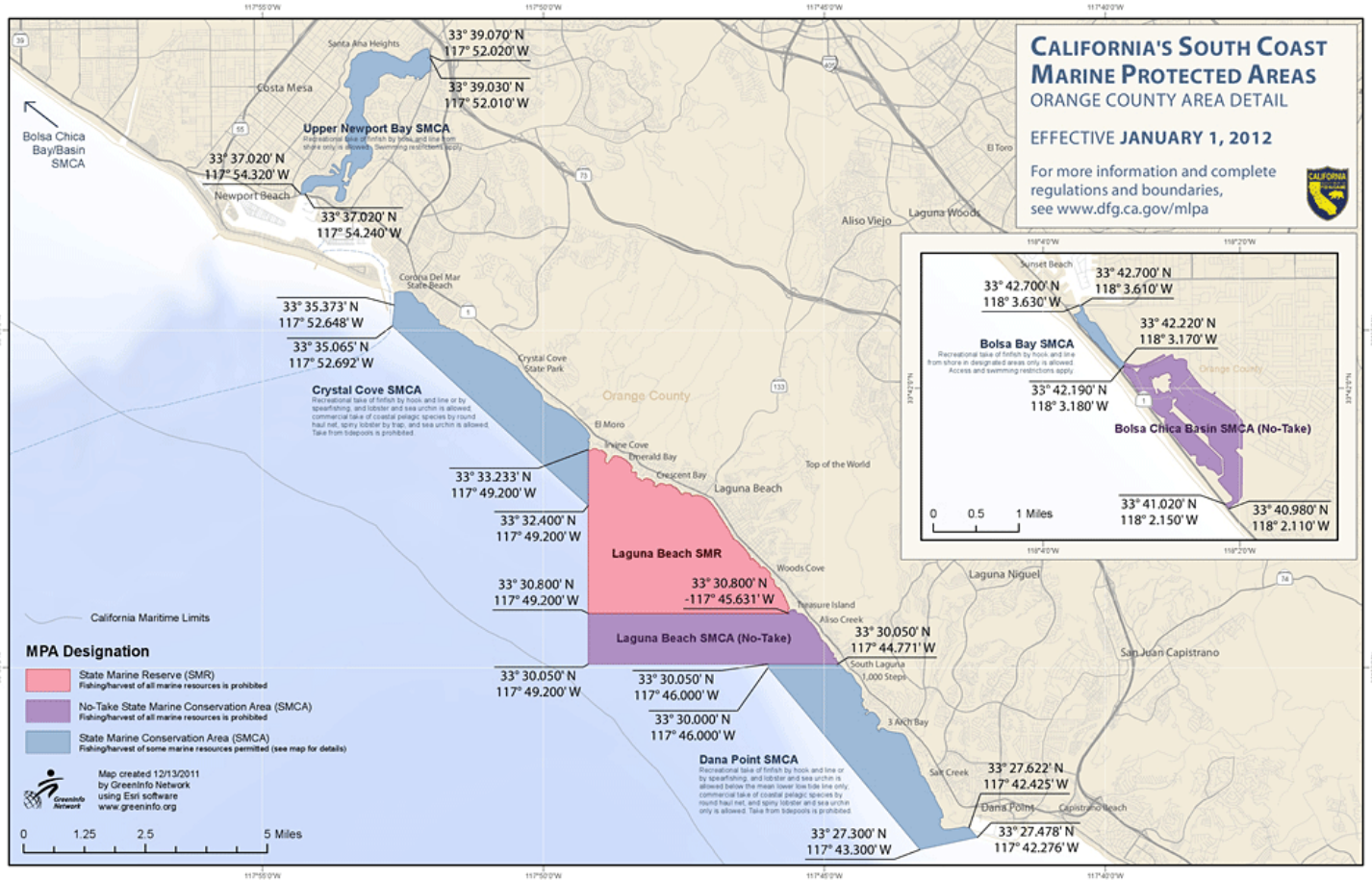




ORANGE COUNTY COASTKEEPER®

Orange County MPAs Watch 2nd Quarterly Report 2018



2nd Quarter, 2018 Results by Marine Protected Area

MPA	Total Activities	Total Onshore	Total Offshore	Onshore Consumptive	Onshore Non-consumptive	Offshore Consumptive	Offshore Non-consumptive	Violation	Total Surveys
Upper Newport Bay	107	37	70	18	19	1	69	1	20
Crystal Cove	1386	1276	110	3	1273	0	110	0	7
Laguna Beach	2391	2141	1732	3	2138	0	250	3	40
Dana Point	1515	1265	250	2	1263	4	246	0	8
Total	5399	4719	680	26	4693	5	675	4	75

The Orange County Marine Protected Area (OCMPA) Watch Program enlists volunteers, community groups and local government to monitor human activity in the Laguna Beach State Marine Reserve (SMR) and Crystal Cove, Dana Point, Laguna Beach, and Upper Newport Bay State Marine Conservation Areas (SMCAs). MPA Watch is a statewide program with the Orange County component run by Orange County Coastkeeper (OCCK). The goal of MPA watch is to provide information to enhance management and performance of Marine Protected Areas. MPA Watch should be viewed as the first part of a three-step process of monitoring, education, and enforcement to evaluate MPA effectiveness in the management of coastal and marine habitats and resources.

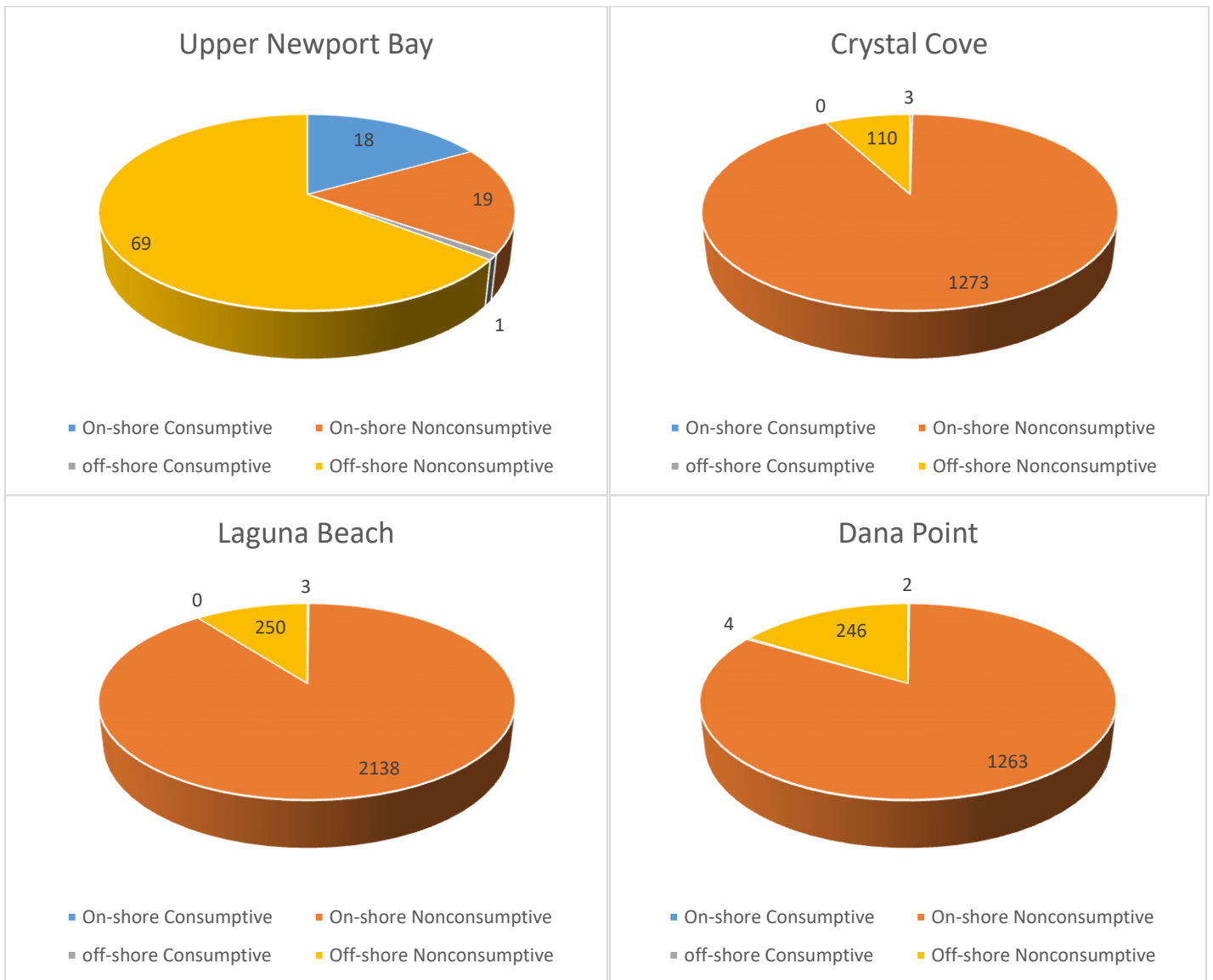
Surveys are conducted at twenty three locations in five Marine Protected Areas: Crystal Cove SMCA (Big Corona, Little Corona, Morning Canyon and Reef Point), Upper Newport Bay SMCA (North Star Beach, Castaways, Rocky Point and Jamboree Bridge), Laguna Beach SMR (Crescent, Shaws, Fisherman's Cove, Heisler, Woods, Moss Point, Victoria, Montage), Laguna Beach SMCA (Aliso Beach, West Beach and Table Rock) and Dana Point SMCA (Thousand Steps, Salt Creek, Dana Point and Strands). We do not monitor the Bolsa Bay and Bolsa Basin SMCAs due to a lack of human activity there.

We defined a large number of activities that our volunteers would be most likely to observe during their surveys including: beach recreation, wildlife viewing, snorkeling, and paddle boarding, and, fishing. Each activity falls under one of four broad categories: On-shore, Off-shore, Consumptive, and Non-consumptive.

On-shore vs. Off-shore Distinction: On-shore includes any activities that are within the MPA boundaries of the mean high tide line. This, for the purposes of this project, includes sandy beaches and rock areas up to the nearest bluff or man-made structure. Off-shore includes the area within the offshore MPA boundaries as defined in the Fish and Game code and all activities that occur in this area.

Consumptive vs. Non-consumptive: Consumptive activities include recreational and commercial take of marine species both on and offshore. Non-consumptive activities include kayaking, surfing, scuba-diving, wildlife viewing, and beach-visiting.

Number of activities divided by four Orange County MPAs



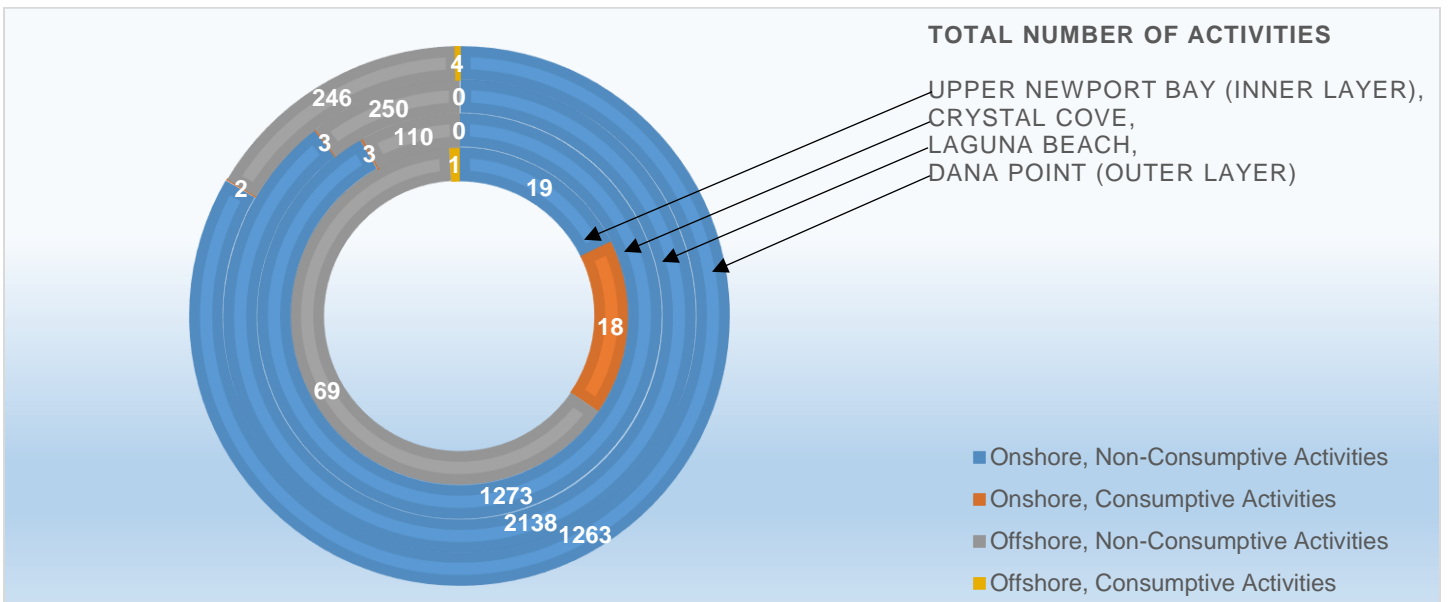
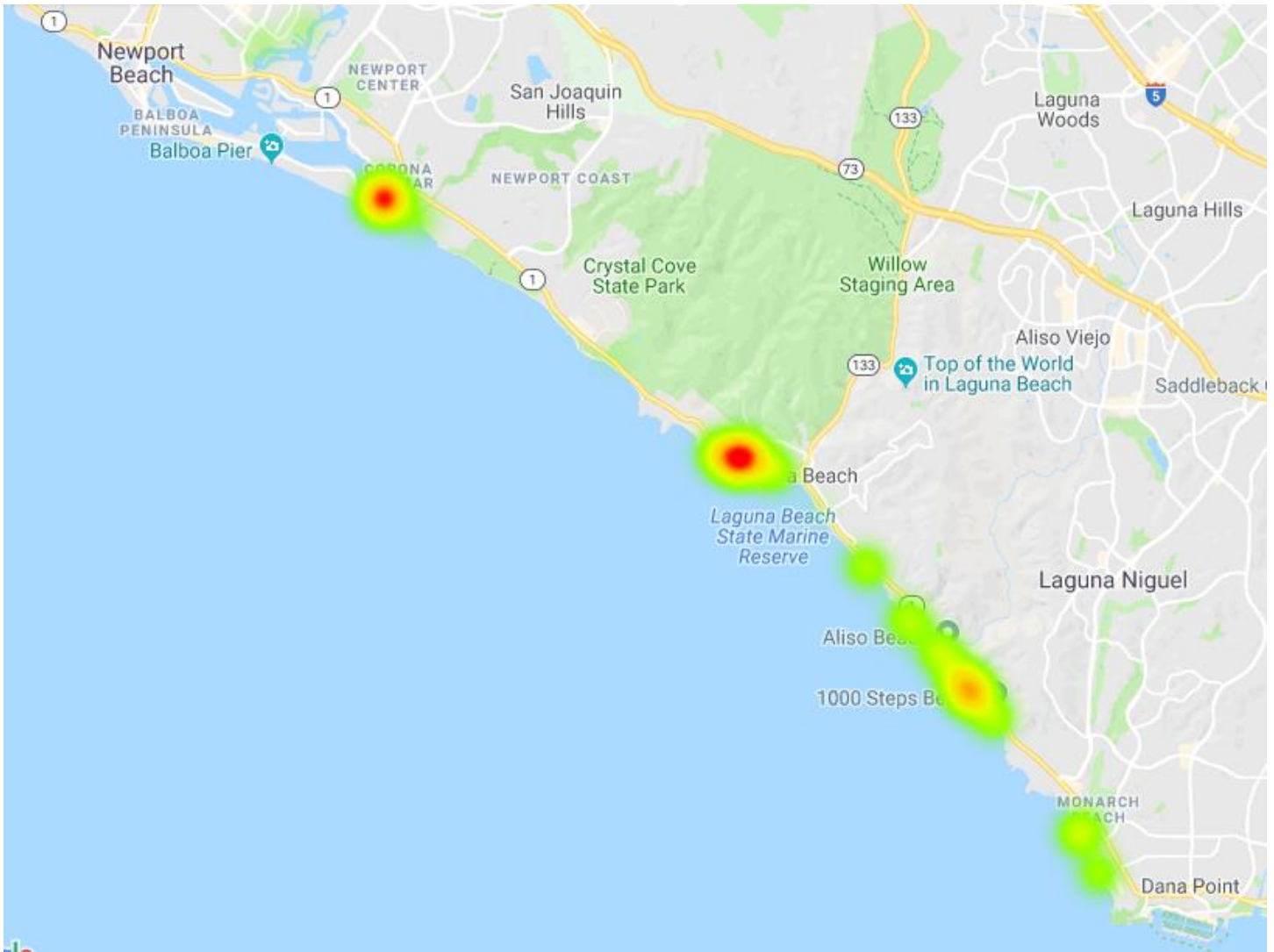
The Crystal Cove and Dana Point SMCAs does not allow take from tide pools.

The Upper Newport Bay SMCA allows fishing from shore using hook and line only.

The Laguna Beach SMR and SMCA does not allow take of any marine resources.

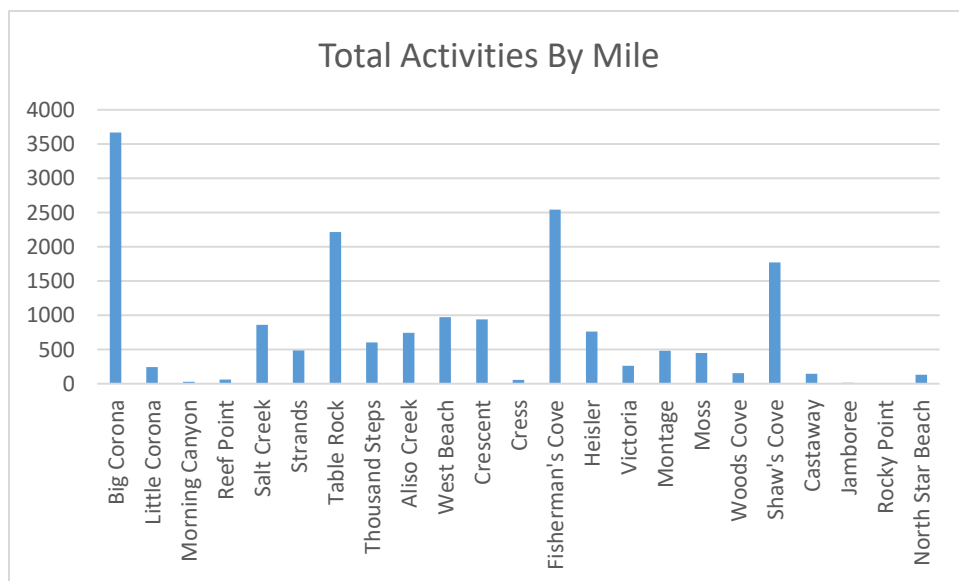
During this period (2018-2nd Quarter) we observed three (3) potential MPA violations in the Laguna Beach MPA Watch area (Crescent and Montage) and Upper Newport Bay (Castaway).

2nd Quarter 2018 MPAs Total Activities Map

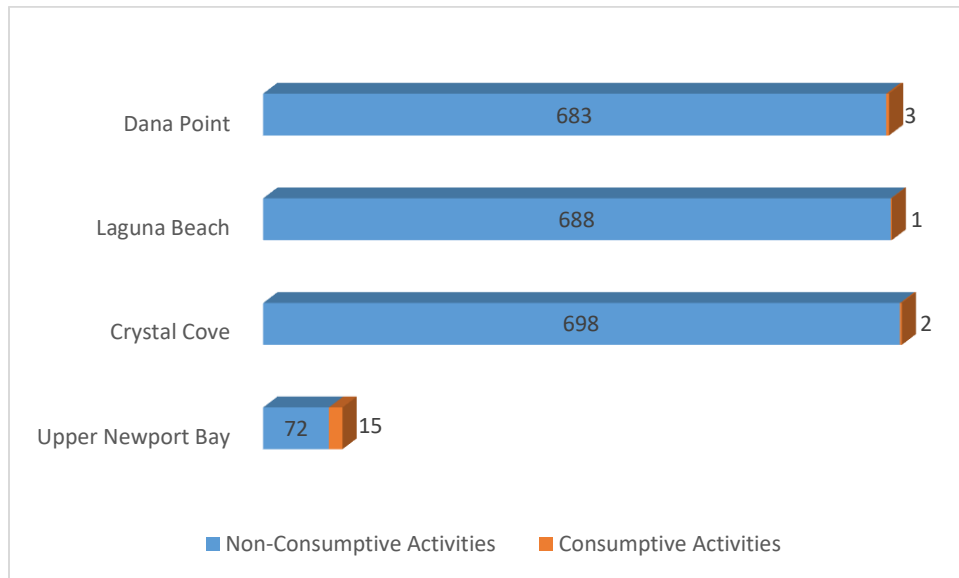


2nd Quarter 2018 Orange County MPAs Activities by Mile

MPA	Actual TOTAL Activities	Total Activities By Mile	Onshore Nonconsumptive	Offshore Nonconsumptive	Onshore Consumptive	Offshore Consumptive	Violation
Big Corona	1247	3668	1160	87	0	0	0
Little Corona	61	244	44	15	2	0	0
Morning Canyon	12	32	8	3	1	0	0
Reef Point	66	65	61	5	0	0	0
Salt Creek	912	860	783	126	2	1	0
Strands	385	487	289	93	0	3	0
Table Rock	244	2218	215	29	0	0	0
Thousand Steps	218	605	191	27	0	0	0
Aliso Creek	186	744	169	17	0	0	0
West Beach	322	976	281	41	0	0	0
Crescent	301	941	265	36	0	0	0
Cress	42	58	39	3	0	0	0
Fisherman's Cove	178	2543	166	12	0	0	0
Heisler	321	764	278	43	0	0	0
Victoria	79	263	71	8	0	0	0
Montage	266	484	259	7	0	0	0
Moss	27	450	24	0	3	0	3
Woods Cove	17	155	17	0	0	0	0
Shaw's Cove	408	1774	354	54	0	0	0
Castaway	77	148	9	60	7	1	1
Jamboree	7	17	7	0	0	0	0
Rocky Point	0	0	0	0	0	0	0
North Star Beach	23	135	3	9	11	0	0



2nd Quarter (2018) Total Number of OC MPAs Activities per Mile



MPA	Total Area By Mile	Activities by Mile	Consumptive By Mile	Non-Consumptive By Mile
Upper Newport Bay	1.23	87	15	72
Crystal Cove	1.98	700	2	698
Laguna Beach	3.47	689	1	688
Dana Point	2.21	686	3	683

The volunteers observed the behavior of 5399 people in Orange County MPAs between April and June 2018. A majority of observations – 87 percent —were of onshore recreational activities such as swimming, sunbathing, running and wildlife viewing. Offshore activities such as surfing, diving, snorkeling and boating made up 13 percent of those surveyed.