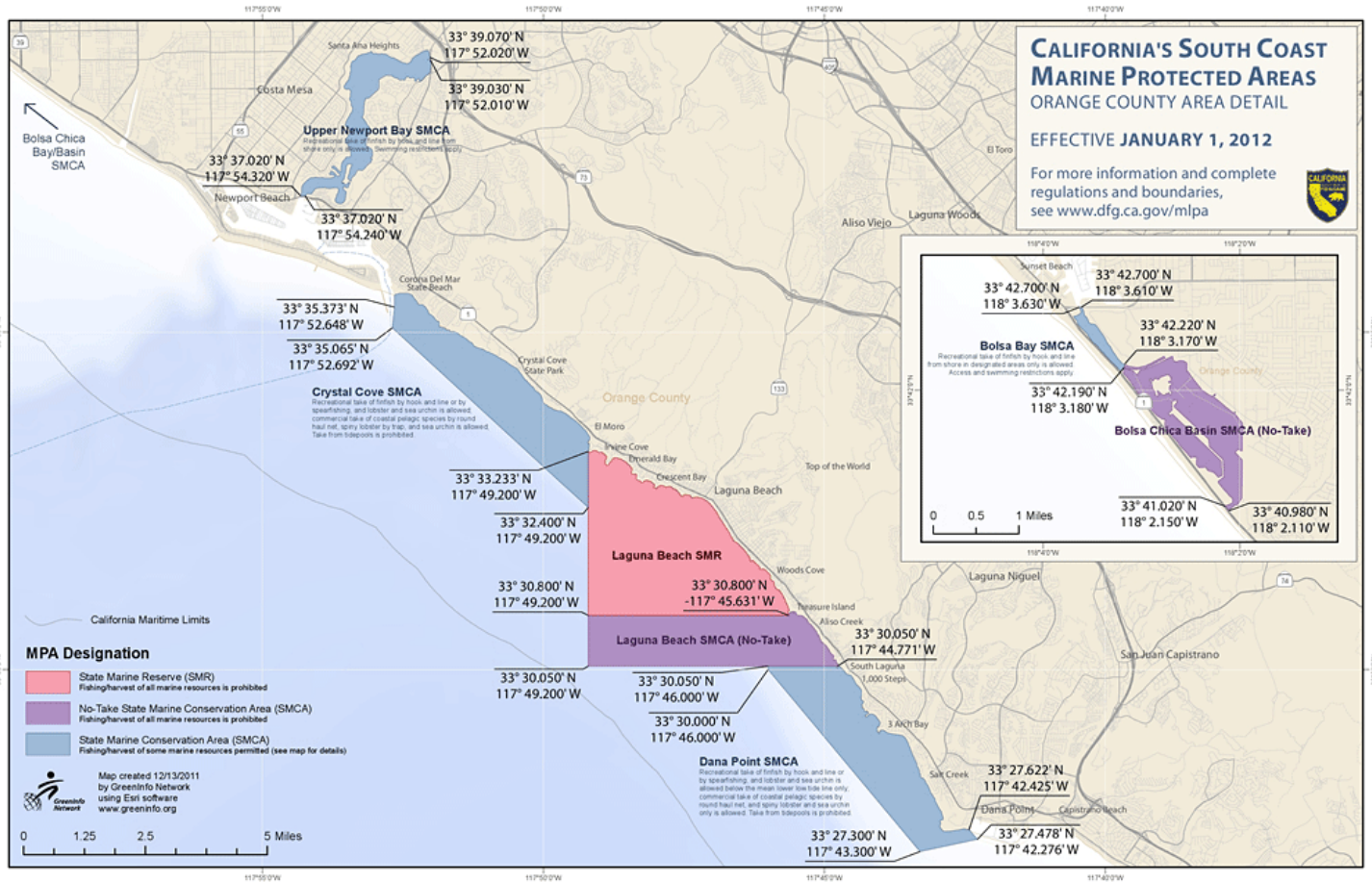




ORANGE COUNTY COASTKEEPER®

Orange County MPAs Watch 3rd Quarterly Report 2018



3rd 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	524	254	270	3	251	1	269	1	65
Crystal Cove	5107	3489	1618	0	3489	14	1604	0	32
Laguna Beach	7317	5585	1732	0	5585	2	1730	2	55
Dana Point	2285	1936	349	0	1936	5	344	0	9
Total	15233	11264	3969	3	11261	22	3947	3	161

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.

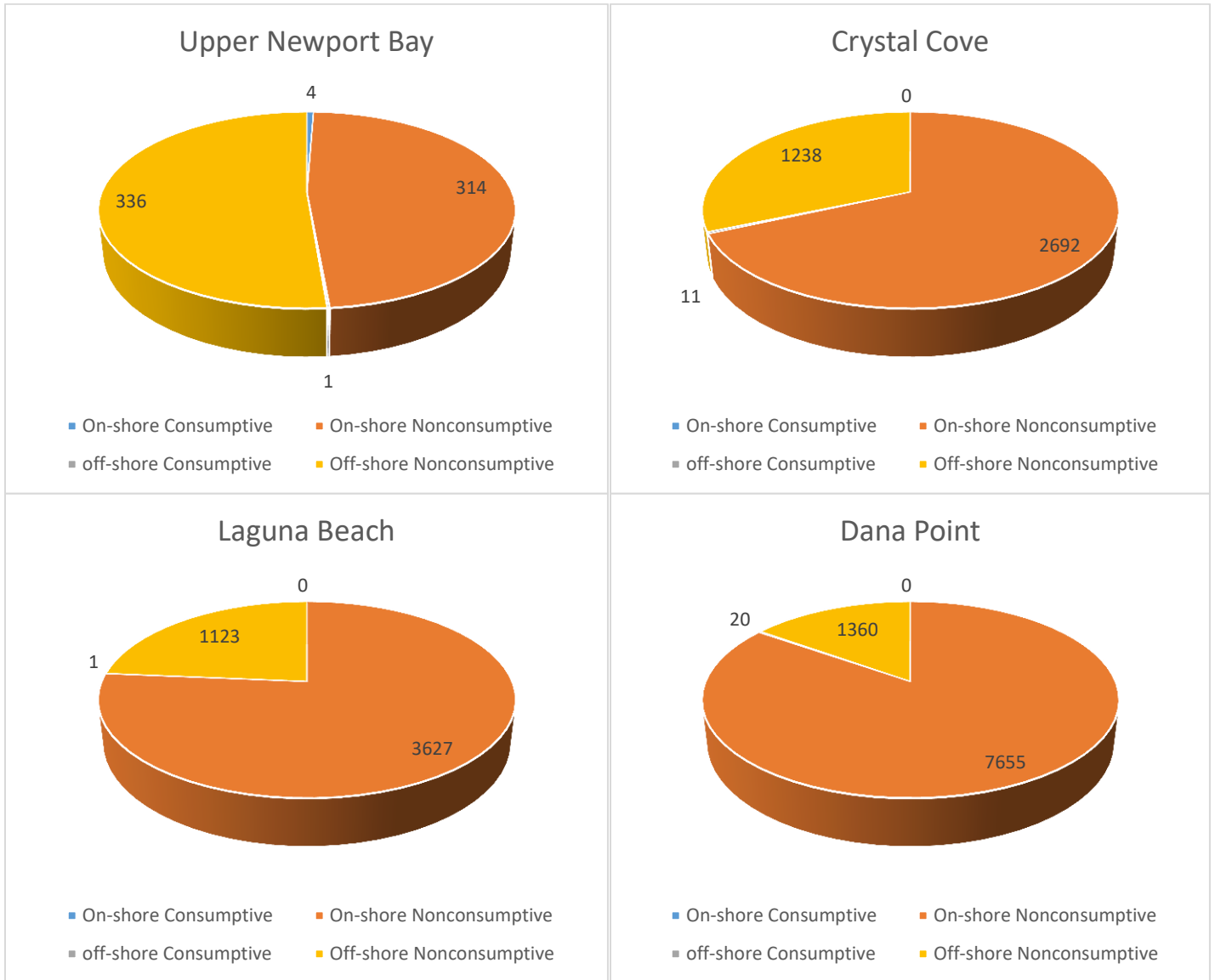
Surveys are conducted at twenty five locations in five Marine Protected Areas: Crystal Cove SMCA (Big Corona, Little Corona, Morning Canyon, Pelican, Los Trancos and Reef Point), Upper Newport Bay SMCA (North Star Beach, Castaways, Rocky Point and Jamboree Bridge), Laguna Beach SMR (Crescent, Shaws, Fisherman's Cove, Heisler, Main, Bluebird, 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



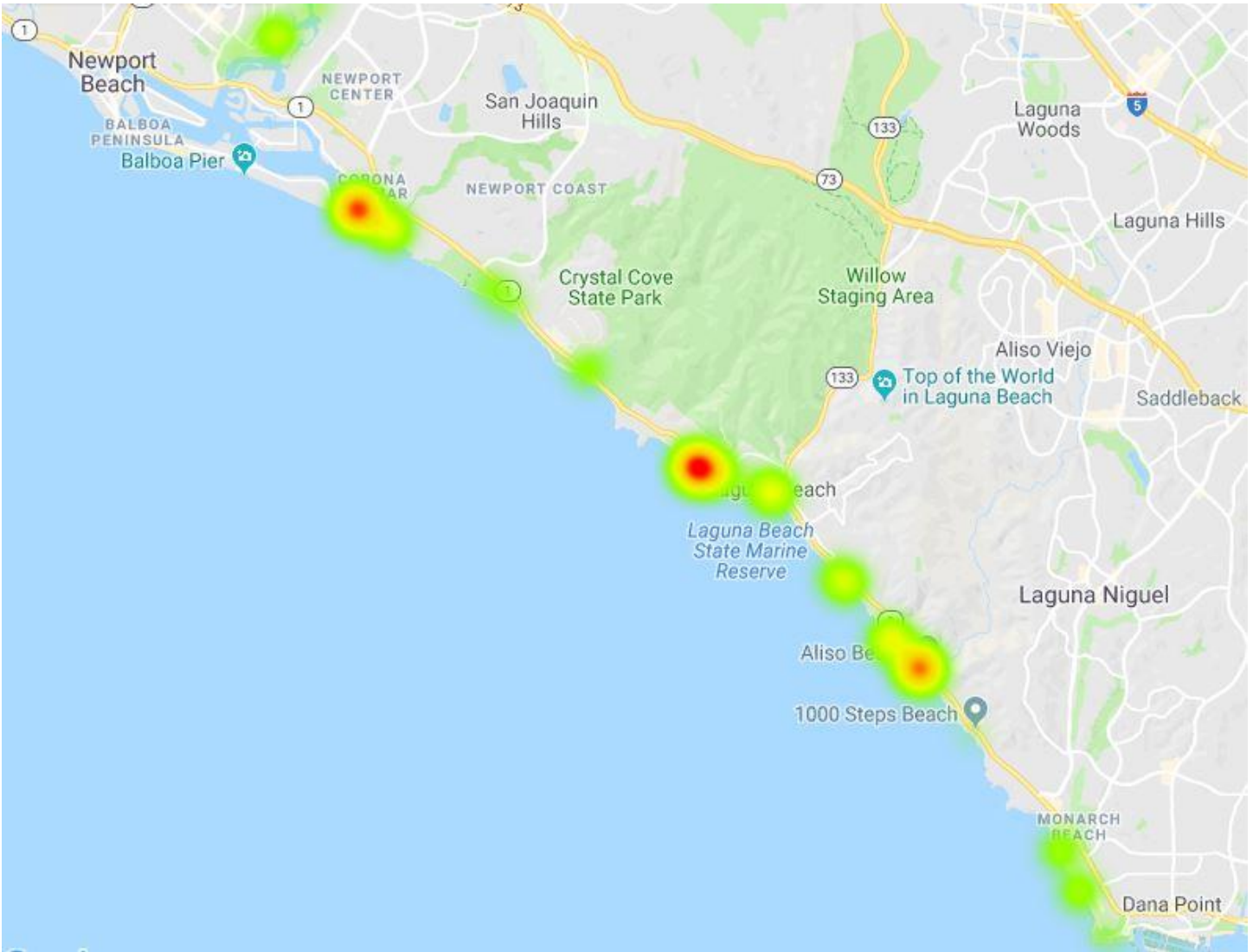
The Crystal Cove and Dana Point SMCAs do not allow take from tide pools.

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

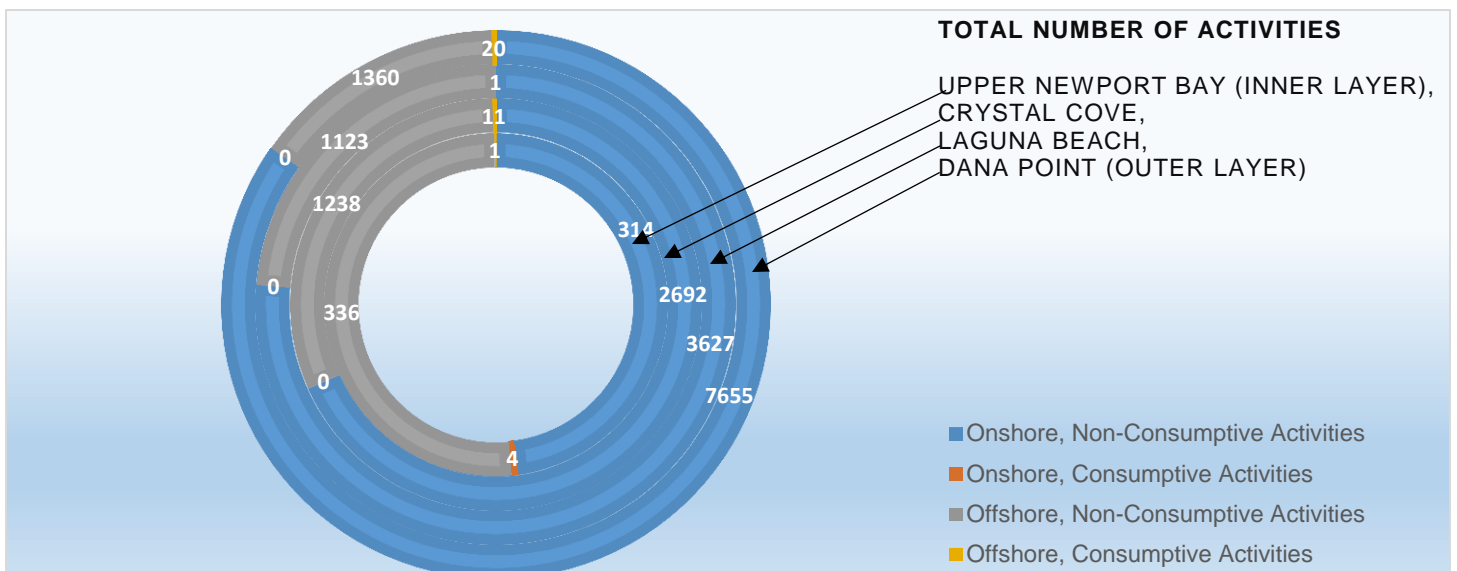
The Laguna Beach SMR and SMCA does not allow take of any marine resources.

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

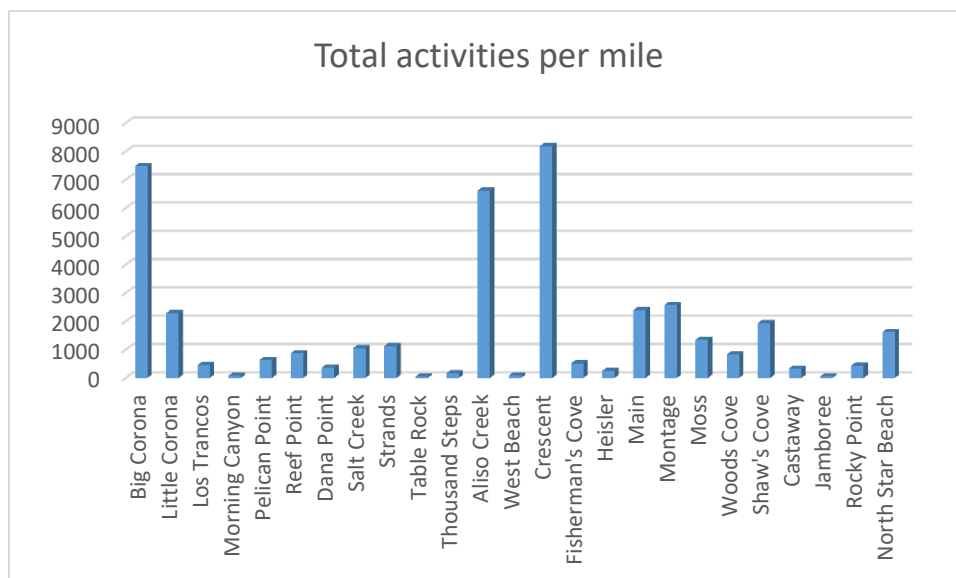
3rd Quarter 2018 MPAs Total Activities Map



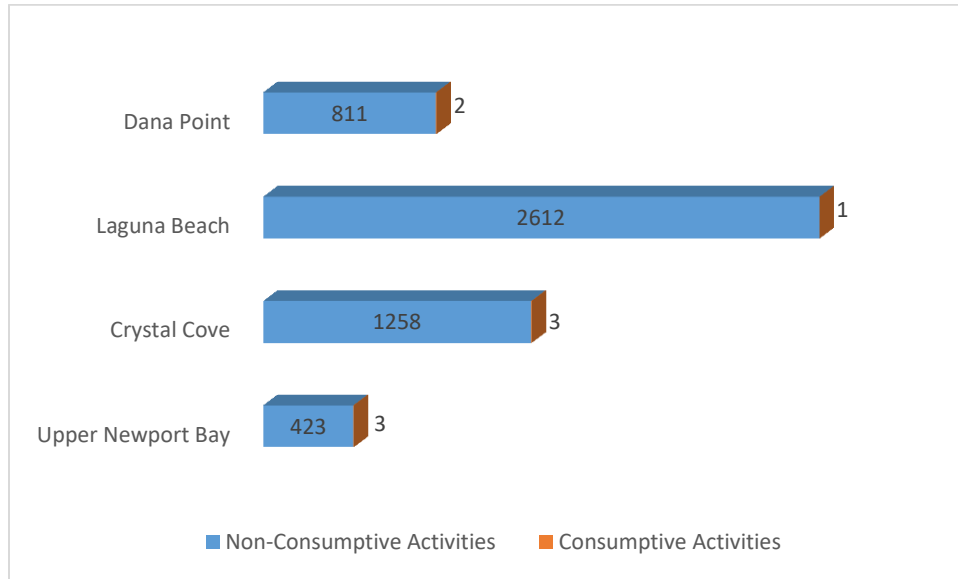
3rd Quarter 2018 Orange County MPAs Activities by Mile



MPA	Surveys	Activities	Non-consumptive	Consumptive	Activities per mile	Violations
Big Corona	8	2544	2535	9	7482	0
Little Corona	15	572	570	2	2288	0
Los Trancos	2	585	585	0	450	0
Morning Canyon	3	29	26	3	78	0
Pelican Point	2	490	490	0	636	0
Reef Point	2	887	887	0	870	0
Dana Point	2	221	220	1	368	0
Salt Creek	3	1116	1112	4	1053	0
Strands	3	888	888	0	1124	0
Thousand Steps	1	60	60	0	167	0
Table Rock	1	5	5	0	45	0
West Beach	1	27	27	0	82	0
Crescent	12	2619	2618	1	8184	1
Fisherman's Cove	2	36	36	0	514	0
Heisler	2	104	104	0	247	0
Main	1	838	838	0	2394	0
Montage	4	1416	1415	1	2575	1
Moss	8	81	81	0	1350	0
Woods Cove	7	91	91	0	827	0
Shaw's Cove	10	446	446	0	1939	0
Castaway	19	172	171	1	331	1
Jamboree	15	20	20	0	49	0
Rocky Point	16	57	55	2	438	0
North Star Beach	15	275	274	1	1618	0



3rd 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	426	3	423
Crystal Cove	4.05	1261	3	1258
Laguna Beach	2.8	2613	1	2612
Dana Point	2.81	813	2	811

The volunteers observed the behavior of 15233 people in Orange County MPAs between July and September 2018. A majority of observations – 74 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 26 percent of those surveyed.