



ORANGE COUNTY
COASTKEEPER®

Orange County MPA Watch

Monitoring Human Usage



WHAT IS AN MPA?

Marine Protected Areas (MPAs) are discrete geographic marine or estuarine areas designed to protect or conserve marine life and habitat. The MLPA (Marine Life Protection Act) was passed in 1999, and the statewide network of MPAs created under it was completed in 2012. The MLPA is different from traditional fisheries regulations in that it seeks to protect entire marine ecosystems rather than individual species. All MPAs have measurable goals and objectives and function as a network. Also, scientific data on the MPAs must be collected to evaluate their performance and facilitate adaptive management. This data is reviewed and adaptive management decisions are made every five years by the California Fish and Wildlife Commission.

WHY DO WE HAVE MPA'S?

MPA's preserve California's stunning marine ecosystems so that future generations can observe and enjoy. Direct benefits include:

- Increased spawning stock
- Improved habitats
- Spillover effect enhances catch close to protected areas
- Enhanced biodiversity and species protection

WHAT IS THE OC MPA WATCH PROGRAM?

The Orange County Marine Protected Area (OC MPA) Watch Program enlists volunteers, community groups, and local government to monitor human uses in and around the seven Orange County MPAs. The program is organized and run by Orange County Coastkeeper (OCCK).

Orange County Marine Protected Areas:

1. Bolsa Bay State Marine Conservation Area (SMCA)
2. Bolsa Chica Basin SMCA
3. Crystal Cove SMCA
4. Laguna Beach State Marine Reserve (SMR)
5. Laguna Beach SMCA
6. Dana Point SMCA
7. Upper Newport Bay SMCA

Orange County MPA Regulations:

All activities that do not harm marine life including swimming, boating, diving, surfing, tidepooling, walking and other beach recreational activities are allowed with no restrictions. The only activities restricted in MPAs are those that involve harming living marine resources. The regulations for each MPA are as follows:

1. The [Bolsa Bay SMCA](#) allows fishing from shore by hook and line only. Due to additional restrictions from the ecological reserve overlay, fishing is only allowed at one site in the very north end of the SMCA near the Bolsa Chica Interpretative Center. However, due to rapid bluff erosion this fishing area has been closed since the beginning of the year until bluff stabilization work can be completed.

2. The [Bolsa Basin SMCA](#) allows no take of any kind.
3. The [Crystal Cove SMCA](#) allows the *recreational* take of lobster, sea urchin, and finfish by hook-and-line or spearfishing, and the *commercial* take of lobster, urchins, and coastal pelagic species such as sardine, anchovy and squid by round haul net. The take of all living marine resources from tidepools is prohibited. The SMCA is bounded by the southern Newport Harbor jetty in the north to Abalone Point in the south.
4. The [Laguna Beach Marine Reserve](#) does not allow take of any marine resources in the 4.7 mile stretch from Abalone Point in the north to Goff Island in the south.
5. The [Laguna Beach SMCA](#) does not allow take of any marine resources in the 1.2 mile stretch from in Geoff Island the north to Table Rock Point in the south.
6. The [Dana Point SMCA](#) allows the *recreational* take of lobster, sea urchin, and finfish by hook-and-line or spearfishing, and the *commercial* take of lobster, urchins, and coastal pelagic species such as sardine, anchovy, and squid by round haul net. The take of all living marine resources from inside tidepools is prohibited. The SCMA is bounded by Table Rock Point in the north and the bend in the Dana Point Harbor jetty in the south.
7. The [Upper Newport Bay SMCA](#) allows fishing from shore using hook and line only. Due to the ecological reserve overlay, fishing is only allowed at four designated sites: Castaways Beach, North Star Beach, Rocky Point, and the Jamboree Bridge. This SMCA includes all of Newport Bay north of the Pacific Coast Highway bridge.

HOW & WHY MONITOR “HUMAN USAGE” IN AN MPA?

To assure the effectiveness of Marine Protected Areas (MPAs) and to determine the impacts on marine resources, we need to identify the types of human activities that occur in or near MPAs. Gathering this data is time consuming, so partnerships with key community groups and engaged citizens are a cost-effective and resource-efficient way to evaluate human uses. Trained volunteers can produce accurate and reliable information that can be used to better understand how individuals use MPAs. **MPA Watch data provides the human use context needed to assist with the interpretation of biological data in the Orange County region through monitoring of human uses inside MPAs.**

Activities Observed:

- *What human uses occur in and around MPAs?*
- *What resources are needed to support the MPAs?*
- *Are regulations being followed?*
- *Have consumptive and non-consumptive uses changed since the MPAs were implemented?*

Partners:

- City of Newport Beach
- City of Laguna Beach
- City of Dana Point
- Crystal Cove State Park
- Laguna Bluebelt Coalition
- Eco Adventure at The Ritz Carlton Laguna Niguel
- Bolsa Chica Conservancy
- Members of the public

DATA:

With sound practices, data from effective volunteer monitoring programs can be used **to inform resource managers and provide information to enhance the management and performance of Marine Protected Areas.**

This data collected by MPA Watch volunteers is analyzed **to identify human use patterns** in MPAs. OCCK then uses the collected information to prepare four quarterly and one annual report that summarize the survey data for use by resource managers, partner groups, and the public. **This data will allow resource managers and community groups working in the MPAs to make decisions on where to invest their resources and maximize benefits to the MPAs and the community.**

The MPA Watch program has been designed as a standardized survey, not necessarily a scientific study. The MPA Watch Program is one part of the umbrella of the larger Orange County and statewide MPA program. OCCK is also involved in other parts of the MPA process.



Activities Observed:

We defined a large number of activities that our volunteers would be most likely to observe during their surveys, such as beach recreation, wildlife viewing, snorkeling, paddle boarding, and of course, fishing. Each activity falls under one of the four categories:

- *On-shore vs. Off-shore Distinction:* On-shore includes any activities that are within the MPA boundaries of the mean high tide line, which, 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.

Survey Results:

January 1st, 2012 was the implementation date for the South Coast MPAs from Point Conception to the Mexican border. **From January 1 – December 31, 2013, we completed 612 surveys and observed 46,578 activities**, consumptive and non-consumptive, onshore and offshore. Although the number of

surveys decreased from 733 last year, the number of activities increased from 44,311 observed last year. We found that the frequency of non-consumptive activities greatly outnumbered consumptive activities, with 95% of the **46,578** activities observed being non-consumptive. Of these activities, beach recreation was the most popular non-consumptive activity. Of the consumptive activities fishing from private vessels were the most popular recreational activities

Survey Sites and Activities:

1. The **Bolsa Bay SMCA**: There is one survey site at the interpretative center. No fishing was observed in this area during our surveys of the site. Walking, running and wildlife viewing were the most common activities observed.
2. The **Bolsa Basin SMCA**: There are two survey sites, one at the Walkbridge and one at the tidal inlet. The most common activities here are walking, running, and wildlife viewing. Fishing is popular outside the SMCA at the tidal inlet jetties across Bolsa Chica State Beach.
 - We discontinued monitoring the three Bolsa
 - Chica SMCA survey sites after Quarter 2 (April- June) due to lack of manpower in addition to the lack of illegal and destructive activities observed.
3. The **Upper Newport Bay SMCA** allows fishing from shore using hook and line only. Due to the ecological reserve overlay, fishing is only allowed at four designated sites: Castaways Beach, North Star Beach, Rocky Point, and the Jamboree Bridge. Each of these is also a survey site. The most popular activities are beach recreation and kayaking.
4. The **Crystal Cove SMCA** consists of two jurisdictions:
 - The **City of Newport Beach** survey sites are Corona Del Mar Beach, Little Corona Del Mar Beach, and Morning Canyon Beach. The most popular onshore activities here are beach recreation, walking, and tidepooling. Popular offshore activities include stand-up paddleboarding and SCUBA diving. In addition, lobster fishing via traps is the most common consumptive activity.
 - The **Crystal Cove State Park** surveys are Pelican Point, Los Trancos, and Reef Point. The most common activities here are beach recreation, walking, and tidepooling. Recreational shore and spear fishing is common, along with commercial lobster fishing.
5. The **Laguna Beach Marine Reserve** does not allow take of any marine resources in the 4.7 mile stretch from Abalone Point in the north to Goff Point in the south. The Reserve contains twelve survey sites covering almost every accessible beach. Beach recreation, walking, running, and wildlife viewing (including tidepooling) are the most popular onshore activities with surfing, diving, snorkeling, and boating as the most popular offshore activities.
6. The **Laguna Beach SMCA** does not allow take of any marine resources in the 1.2 mile stretch from Goff Island to Table Rock Point (except for public works maintenance activities). The SMCA contains three survey sites covering almost every accessible beach. Beach recreation, walking, running, and wildlife viewing (including tidepooling) are the most popular onshore activities with surfing, diving, snorkeling, and boating as the most popular offshore activities.
7. The **Dana Point SMCA** allows the *recreational* take of lobster and sea urchin, and of finfish by hook-and-line or spearfishing, and the *commercial* take of lobster, urchins, and coastal pelagic species such as sardine, anchovy, and squid by round haul net. The take of all living marine resources from inside the tidepools in these MPAs is prohibited. The Survey sites are Totuava Beach, Thousand Steps Beach, Three Arch Bay, Salt Creek, Dana Strands, and Dana Point. The

most popular activities here are beach recreation, walking, and tidepooling. The most common non-consumptive offshore activity is surfing, primarily at Salt Creek Beach. This area was also the most popular MPA for fishing from private boats and lobster pots.

Frequency of MPA Watch Visits per Quarter					
No. of Visits per Quarter					
MPA	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Bolsa Chica*	16	69	-	-	85
Upper Newport	14	14	22	20	70
Crystal Cove	26	40	19	9	94
Laguna	61	91	62	74	288
Dana Point	14	19	26	16	75
TOTAL	131	233	129	119	612

*The frequency of MPA Watch Visits in the Orange County Marine Protected Areas
January 1, 2013 through December 31, 2013*

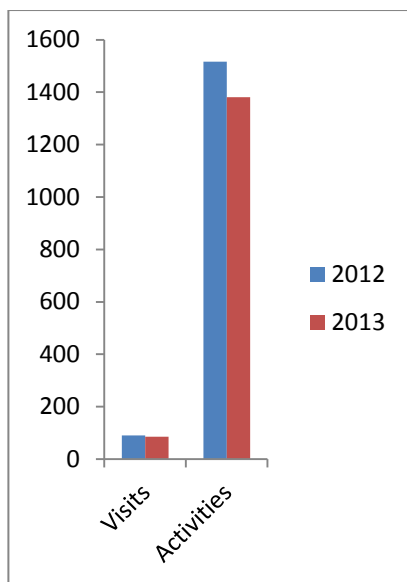
**We discontinued monitoring in the Bolsa Chica SMCA after Quarter 2*

Observed Activities during MPA Watch Visits					
MPA	Onshore, Non-Consumptive Activities	Onshore, Consumptive Activities	Offshore, Non-consumptive Activities	Offshore, Consumptive Activities	TOTALS
Bolsa Chica	1381	0	0	0	1381
Upper Newport Bay	742	350	510	18	1620
Crystal Cove	9328	170	2499	172	12169
Laguna	18435	70	4090	113	22716
Dana Point	5082	21	2272	1317	8692
TOTALS	34968	611	9371	1620	46,578

*The frequency of consumptive versus non-consumptive activities in the Orange County Marine Protected Areas
January 1, 2013 through December 31, 2013*

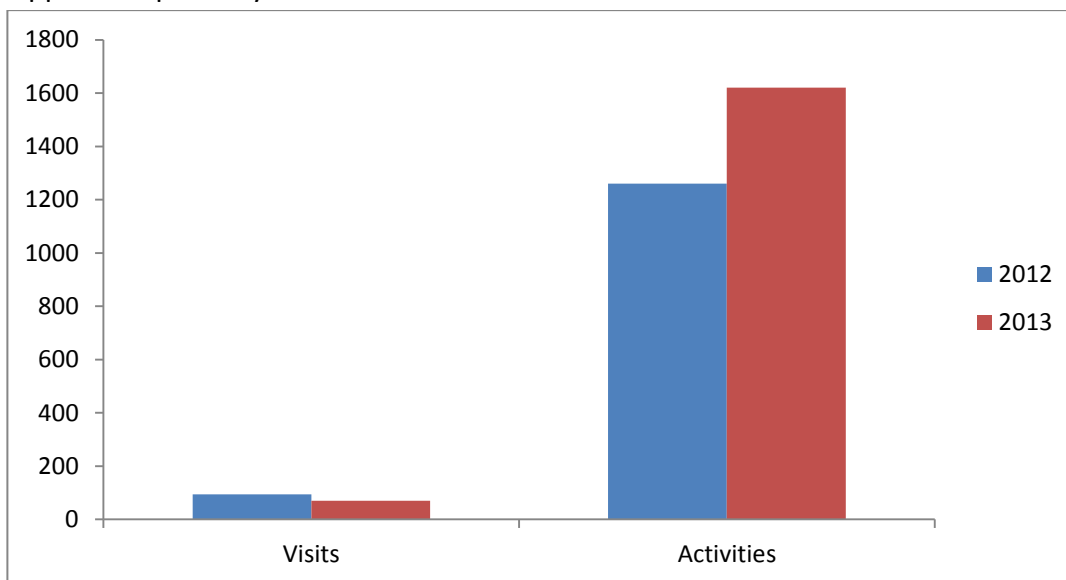
By the Numbers: 2012 vs 2013

- Bolsa Chica



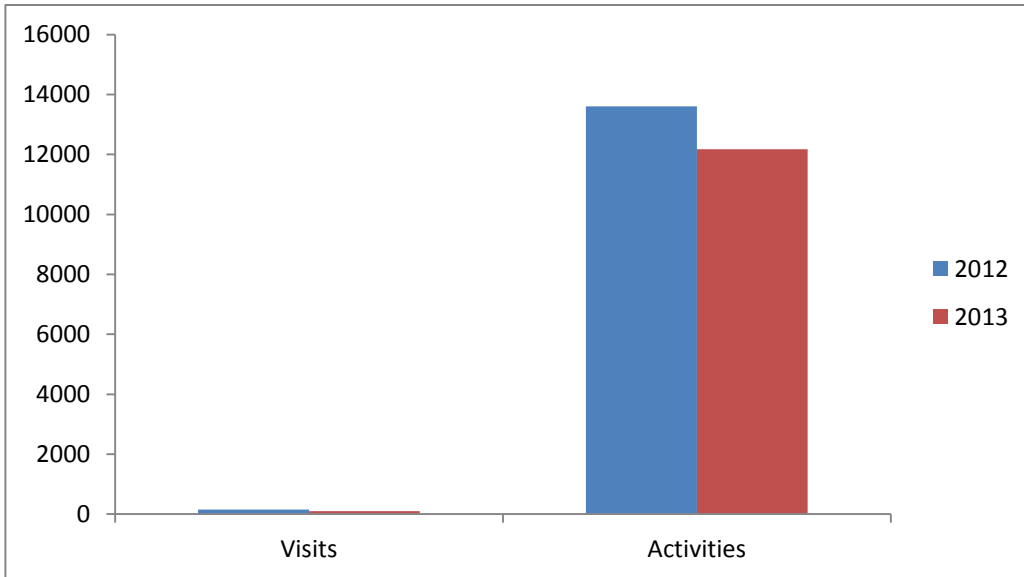
The number of MPA Watch visits and the number of activities observed at Bolsa Chica for 2012 and 2013. Almost the same amount of visits was recorded in 2013 even though monitoring was stopped after Quarter 2. The number of activities observed in 2012 is higher than in 2013.

- Upper Newport Bay



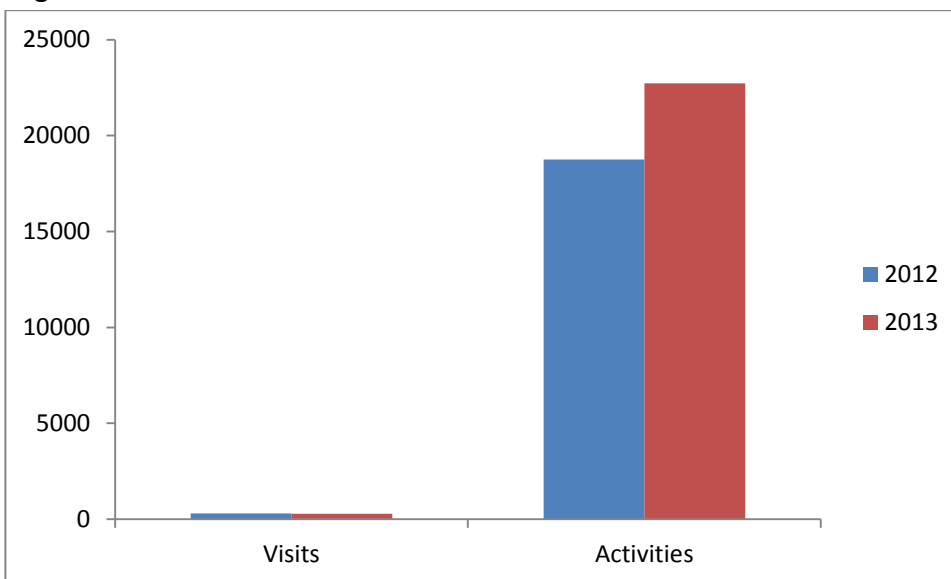
The number of MPA Watch visits and the number of activities observed at Upper Newport Bay for 2012 and 2013. While the number of visits decreased, the number of activities recorded increased by 360.

- Crystal Cove



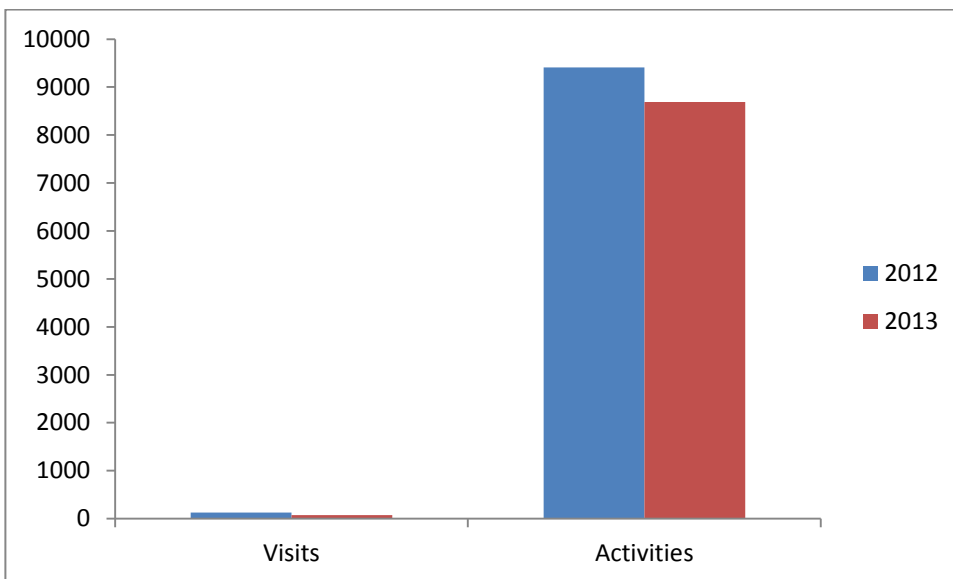
The number of MPA Watch visits and the number of activities observed at Crystal Cove for 2012 and 2013. The number of visits decreased by 59 in 2013, and the number of activities also decreased by 1,437.

- Laguna



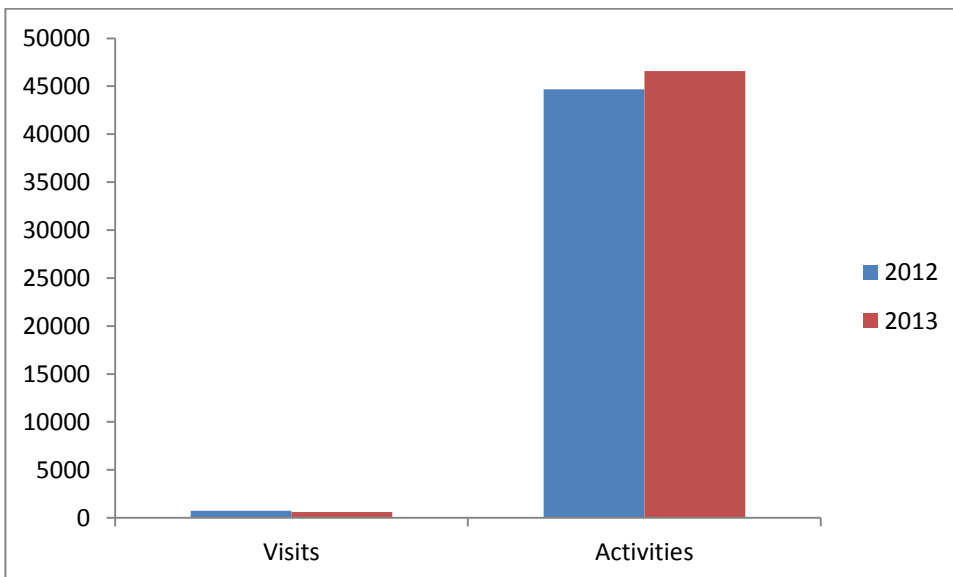
The number of MPA Watch visits and the number of activities observed at Laguna Beach for 2012 and 2013. The number of visits decreased by 10, but the number of activities observed increased by 3,958.

- Dana Point



The number of MPA Watch visits and the number of activities observed at Dana Point for 2012 and 2013. Visits decreased by 51 in 2013 as well as activities which decreased by 717.

- Totals



The number of MPA Watch visits and the number of activities observed at Bolsa Chica, Upper Newport, Crystal Cove, Laguna, and Dana Point for 2012 and 2013. The number of visits decreased by 142, but the number of activities recorded increased by 1,908 in 2013.

Orange County Survey Sites

