

# MPA Watch Statewide Methodology

Methodology for conducting a survey ensures that any well-trained volunteer will conduct observations and gather data in the same manner. Existing MPA Watch programs have agreed upon standardized protocols that promote consistency across the state.

## MPA Watch Survey Protocol

The following protocol is designed for MPA Watch citizen science volunteers as the audience. It details the steps required to complete a survey including preparation and materials required, alignment on the coast, how to count activities and when, ending a survey route, and entering data into the statewide website.

## How to Conduct a Survey

1. Have all required materials on hand before conducting a survey. This includes:
  - MPA Watch field guide/maps (survey protocol and directions for conducting the survey)
  - Data Sheets (one for each survey)
  - Binoculars
  - Clipboard
  - Writing Utensil
  - Watch
  - Compass (can use on smart phone) or GPS
  - Digital camera (encouraged but optional)
2. Fill out the top portion of the data sheet, writing in some of the metadata (Name, Date, and Transect ID/Site).
3. Walk to the designated start point.
4. Write in the existing metadata (Start Time, Weather, Tide, etc.)
5. To begin the survey accurately, use a compass or GPS unit to orient yourself in the correct direction of the MPA boundary or transect boundary (see program field guide for site specific orientation directions).
6. Start walking the specified route your survey protocol describes, usually along the mean high tide line, observing and recording all people and boats on the beach or in the water. Do not count people on bluffs, trails, roads, or parking lots. The first occurrence of infrastructure or bluff onshore constitutes the shoreward boundary. The only activities you can count on trails or bluffs are active shore-based hook and line fishing, where the fishing line is touching the waters of the MPA or control site. In some cases limited access prevents volunteers from moving steadily along a transect route. Instead, they must visit

pre-defined vista points and scan the coast to document activities occurring across a wide area. For all vista points, the time spent observing at each vista point should be the smallest amount of time needed to count all activities across the defined transect.

7. As you walk, record any activity in the appropriate categories when you pass the people doing that activity. For example, if you see someone surfing 50 feet ahead of you, do not count that activity until you pass the person who is surfing. People's activities may change from the time you first see them until the time you pass them, so to maintain scientific consistency, you should only record the activity you see them doing when you pass them. Count every single person you see, except in the case of boats (a boat gets one tally regardless of the number of people aboard). Each person or boat counted gets a tally in only one category. Also, domestic animals are tallied separately from their owner. For example, if a man is walking his leashed dog down the beach, this counts as one "Beach Recreation" and one "Domestic Animal".
8. Do not count any activity that is happening behind you. Only count activity that is happening between you and the stop point as you pass them. However, for example, if a person is running along the beach in the same direction you are walking and he passes you from behind, you should count that activity as running when he passes you (as long as you have not counted him earlier in the survey). Try not to double-count people if their activity changes.
9. All activities should be counted as you pass them and as they are happening. The only activities you can count if the person is not actively doing those activities in the water are surfing and SCUBA diving. If a person is in a wetsuit and is walking with his surfboard along the beach (and he has no other beach recreational items with him), it can be assumed that his only activity is or was surfing. The same can be assumed for a person walking along the beach in a wetsuit and SCUBA gear. However, if a person is next to a surfboard lying on the sand and he or she is in clothes or a bathing suit (NOT a wetsuit), you should count that activity as "beach recreation" because we cannot assume that his/her only activity is or was surfing.
10. Wildlife watching should only be counted if the activity is taking place on the beach or in the water- not on bluffs or trails. Wildlife watching is indicated by the use of binoculars or overt pointing and gesturing towards wildlife (such as whales, sea lions, etc.)
11. When recording consumptive boat fishing activities, make sure to properly mark if a person is inactive or active in the appropriate section of the data sheet. Active fishing is indicated by lines in the water, traps or nets set or pulled up from the water, and divers with fishing gear entering or exiting the water. Inactive fishing is when fishing gear is visible or present on board, but not baited, in the water, or being used. It is allowed for a person to transit through an MPA with fishing gear to areas where fishing is permitted as long as the gear is not baited or ready to be used to fish. Therefore, for example, we need to differentiate between a kayaker with a rod/reel on board who is legally transiting through an MPA, and a kayaker with a rod/reel that is actively fishing inside the MPA.

12. When you arrive at the end point, stand facing the ocean and use your compass or GPS to orient yourself in the accurate direction for the end of the survey. Imagine a line that extends out to the ocean as the border of the survey segment, and use this to accurately record only the activities within the survey area on your data sheet.
13. Write the end time at the top of the data sheet.
14. Total the tally marks in each individual box and circle the numbers when you finish your survey.
15. Begin your next survey on the next data sheet. You may survey the same area more than once a day, even immediately after your previous survey.
16. If you have been trained and approved for data entry, please log in to [www.mpawatch.org/portal](http://www.mpawatch.org/portal) to enter your data, and attach a photo or PDF of your data sheet to the survey online.
17. If you have not been trained and approved for online data entry, send your data sheet to the local MPA Watch program administrator via an email attachment, fax, mail, or in person.

### **Reminders:**

1. Each survey should take no longer than one hour (one direction).
2. Only mark the activity the person is actively engaging in.
3. Some surveys may have no activity – fill out data sheet with zeros and write “no activity”. These surveys are equally as important as ones that have plenty of activities recorded.
4. Fill out a separate data sheet for EACH transect surveyed.

### **SAFETY FIRST!**

- Do not compromise your safety to collect the data!
- Be aware of people approaching you- be friendly, provide them with a general overview of what you are doing.
- Do not approach people engaged in an activity- especially fishing, as you are taking observational surveys and do not want to influence behavior while conducting a survey, or put yourself in a controversial or dangerous situation.