

Beach litter monitoring.

Methodology summary for Citizen Scientists.





Choose Survey Area

Your Sustainable Coastlines rep will work with you to choose the best beach area for long-term monitoring. This is your Survey Area.

During your training workshop, Sustainable Coastlines will also help you complete the necessary Health & Safety Plan for working safely at your site.

This methodology is a localised adaptation of the United Nations Environment Program / Intergovernmental Oceanographic Commission Guidelines on Survey and Monitoring of Marine Litter.

Note: This is a methodology overview intended for Citizen Scientists. It does not replace official training, which covers important Health and Safety, logistics and planning considerations.

Set-up Survey Area

Complete a site risk assessment before each 'Litter Survey'.

Start at the most apparent high tide mark. From start point, measure 10 metres either side of high tide¹, and mark the area corners with your stakes.

At the start point take 3 photos:

(1) Out to sea (2) To back of beach (3) Along survey area. Also record your visual assessment grade (A-D) for the beach.

Then, measure 100 metres along the beach to your end point, and set up stakes here.² This 100 by 20 metre space is your 'Survey Area'. Citizen Scientists only need to remove litter from this area.

Complete Litter Survey

Where possible, complete your survey at low tide. **Brief 'Citizen Scientists' on Health & Safety** and how to do the survey. Provide clean-up/survey equipment. Survey should take 30 mins - 2 hours.

Collect all visible litter from the beach by walking the entire survey area at least two times. While you can collect items under 5mm, these are not included in the audit.

Found less than 10 items? Extend the survey length to a total length of 300 metres and continue to survey (if safe to do so).

Leave behind all dangerous, large or immovable, and organic litter.

Complete Litter Audit

While you can do this on site, it can be easier in a sheltered location like a garage or surf club. Some items can be dangerous, so follow safety instructions.

Sort all litter from the survey area into the categories provided. Use the sieve to separate any items under 5mm, so that they aren't counted or weighed.

Group items from each category in one of your sorting bins. Record the item count and total weight (in grams) of the items in each category. Also record confidence level (High or Low) for weight.

Record your visual assessment grade (A-D) for plastic resin pellets.

Repeat Four Times A Year

To get long-term data and insights on our litter problem, surveys need to be **repeated every 3 months**.

This is a great chance to get back together with your friends, whanau and/or colleagues to look after the places you love.

Make sure you follow steps 1 to 3 each time, and complete the survey in exactly the same place each time so we can compare data!



1. If you cannot survey 10m above and 10m below high tide, record the width of beach that you can safely access and set-up your Survey Area accordingly. 2. If your survey will take over two hours to complete, reduce length to 50 or 20 metres, whichever is the greatest you can achieve in that time limit.