**Beach Survey**

**Before You Begin Your Surveys**

Pre trip planning:

* Arrange students into groups of 3-5. Give them group numbers so they will know who they are with once they break out.
* Assign roles: Two people posted and others walking around - Bag or bucket holder, Recorder, Collectors.
	+ Collectors: should give the recorder *three data points* before depositing the trash.[[1]](#footnote-1)
		- Example: “Beverage bottle, recycling #1, brand name Aquafina”
		- Example: “Bottle cap, no recycling #, no brand name”
	+ Recorders: should be the most capable group member. If the collector didn’t provide the information, they need to ask for the data. (e.g. “What was the recycling number?”)
	+ Bag or bucket holder: remains at fixed point next to recorder and assists.[[2]](#footnote-2)
* On clipboards, complete the shoreline characterization sheet.
	+ Complete as much information in advance as possible.
* With data sheets and distributed bags/buckets, send groups to their locations. You will not have a transect, but walk back and forth offering advice, and ensuring data is filled out.

Before any data collection begins, the Beach Characterization Sheet should be completed for each street site.

***You will need the following supplies in order to complete your surveys:***

* Digital camera (optional)
* Hand-held GPS unit or Command Compass App. (free download)
* Flag markers or stakes
* 50-100 Meters measuring tape
* Extra Lengths of Rope 50-m (optional)
* First aid kit (including sunscreen, bug spray, drinking water)
* Work gloves
* Clipboards for data sheets
* Data sheets
* Pencils
* Trash bag or bucket

*Safety is a priority. Do not touch or lift potentially hazardous or large, heavy items. Notify your local officials if such items are encountered.*

**Transect Setup**

1. BEFORE arriving at the site, check local tide tables and plan to arrive at your site during low tide.

2. ONCE ARRIVED

* Measure your 100-m shoreline site and divide the 100 m into 10-m segments. There should be 10 of them.
* Mark the beginning and end of your shoreline site (100-m), perhaps with flags or stakes. (Remember to pick up these markers at the end of your survey to make sure they do not become marine debris.)
	+ Mark Segments with rope or other markers, stakes, rocks, a line drawn in the sand.
* Number each section (left to right) from 1 to 10. Each 10-m segment should run from the water’s edge to the back of the shoreline.
	+ The back of the shoreline is where the primary substrate (e.g., sand) changes (e.g., sand becomes gravel) or at the first barrier (e.g., vegetation line).

3. In order to cover the entire site from water’s edge to the back of the shoreline, decide whether you will traverse the survey area parallel or perpendicular to the water. Surveyors should traverse the survey area in a pre-determined walking pattern until the entire site is cleared of marine debris.

4. Record on your Marine Debris Data Sheet counts of debris items that measure over 2.5 cm, or 1 inch (bottle cap size) see Figure 1.

*2.5cmFigure 1. Minimum debris size to be counted. \*This size is required to keep surveyors counting the same size items and to help keep the survey results uniform.*

5. Take photos of your shoreline site and some of the debris items.

1. Students can practice in classroom ahead of time – distribute plastic trash, and have each student state the Three important data points [↑](#footnote-ref-1)
2. Sorting, in the form of dropping recyclables and non-recyclables in different bags/buckets, can be done at this point, if desired [↑](#footnote-ref-2)