

Mapping Your Hydrosphere Study Site

Field Guide

Task

Make a scaled field map of your Hydrosphere Site.

Materials

- [Hydrosphere Site Mapping Sheet](#)
(1 cm grid paper)
- Measuring tape (50 m)
- Compass
- Flags (18)
- Pencil/eraser

In the Field

1. Select a section of the bank at least 50 meters long as your study area, if possible. You may consider the entire water body as your study area if it is small enough. The area should contain the sampling site where you collect your water measurements as well as a variety of habitats.
2. Use the measuring tape to measure a straight transect, at least 50 meters long, parallel to the shoreline, and within 10 meters of the bank. The transect will be varying distances from the water if the bank is not straight.
3. Place flags at the two ends and at every 3 meters along the transect.
4. Start drawing your map using the flags to help keep it to scale.

Note: Using the *Mapping Field Sheet* or graph paper with 1 cm squares, each square should represent 3 meters. Put the scale on your graph.

5. Mark the transect and flag positions on the map.
6. Draw the waterline or bank by measuring from each flag directly to the water, placing a small dot on the map to show the waterline, then connect the dots with a dotted line to indicate the bank.
7. Put in the opposite bank or indicate the approximate distance to the opposite bank if known.
8. Use an arrow to indicate the direction of water flow or the inlet and outlet of your water body.
9. Create a key with symbols for special features found at your site. Use these symbols to indicate where special features are located on the map. Suggested features to include:
 - Within the sampling area: riffle areas, pools, vegetated areas, logs, rocky areas, gravel bars, sand bars, bridges, docks, jetties, dams, etc.

- Around the sampling area: land cover (or MUC codes), geological features such as cliffs or rocky outcrops, man-made features such as houses, parks, parking lots, factories, roads, dumps or debris, etc.
10. Show the location of your Hydrosphere Sampling Site.
 11. Include the following information on the map:
 - Name of site
 - Name of water body
 - North arrow
 - Date
 - Scale (e.g., 1 cm = 3 m)
 - Key to all symbols used on the map
 12. Scan your map to have an electronic version to share with other schools and have a hard copy for your students to use as a reference or to include in their student research.