

EMERY ROD BEACH PROFILING INSTRUCTIONS

ROLES:

Persons 1 and 2: Hold one rod each, keep rod vertical (use gloves to protect from splinters)

Person 3: Use string and level to determine where to properly place rods so they are 1 meter apart; use string and level to take measurement

Person 4: Record measurement, check that poles are vertical and that transect is straight*

**In groups of 3, persons 1 and 2 should share role 4*

NOTES:

*Each painted increment on rod \approx 2 cm; round measurements to nearest cm; remember changes in height measured off landward rod are **negative** (indicating slope down toward water) and heights measured off the seaward rod are **positive** (indicating slope up)*

MEASURING INSTRUCTIONS:

1. Person 1 set the landward rod gently on the beach, hold it so it is vertical

2. Person 4 check that the landward rod is vertical

3. Person 3 use the bubble level to level the marked string and use the marks to determine where to place the seaward rod so it is 1 meter along the transect line from the landward rod

4. Person 2 place the seaward rod at the designated spot and keep it vertical

5. Person 4 confirm that both rods are vertical and roughly aligned with your transect line

6. Person 3 move one end of the string to rest on top of the shorter of the two rods; then adjust the other end so that the string is level and touching both rods (Person 4 check that your rods are still vertical)

7. Person 3 read the measurement by looking at where the string intersects the taller rod (how many centimeters below the top of that rod is the string touching?); remember, if the beach is sloping down you should be reading the measurement off the landward rod and the measurement you record should be negative (for example, "- 2 cm").

8. Person 4 record the measurement on the datasheet

9. Repeat steps 1-8 until you are close to the water – don't get wet!

GRAPHING INSTRUCTIONS:

When your profile is complete, graph your data onto the paper provided. Indicate where the water level is currently, where you think the high tide typically reaches, and where the bottom edge of one building or structure is.

EMERY ROD BEACH PROFILING DATASHEET

PROJECT: Estimating future effects of sea level rise on San Francisco Bay shorelines

LOCATION: _____ DATE: _____

SURVEYING TEAM: _____

TRANSECT ID: _____ ELEVATION OF STARTING POINT: _____

COMPASS BEARING OF TRANSECT: _____ TIDE STAGE: _____

*NOTES: Each painted increment on rod \approx 2 cm; round measurements to nearest cm; remember changes in height measured off landward rod are **negative** (indicating slope down toward water) and heights measured off the seaward rod are **positive** (indicating slope up)*

DISTANCE ALONG TRANSECT FROM STARTING POINT (m)	CHANGE IN HEIGHT OF RODS FROM PREVIOUS POINT (cm) → include "+" or "-"	DIRECTION OF BEACH SLOPE IN THIS PART OF TRANSECT → "up" or "down"
1		

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