



Welcome to Wells Beach Profiling Program

Volunteer Training Presentation

Wells Beach Profiling Program



≈ Purpose of the Program

≈ Team Member Duties

📌 Team Leader

📌 Volunteer Monitor

📌 Volunteer Data Entry

Wells Beach Profiling Program



≡ Profiling Equipment

- ✦ Measuring Rods
- ✦ Data Sheets
- ✦ Camera and watch

≡ Recording and Reporting

- ✦ Measurement Data
- ✦ Photos

Purpose of the Program

- **Records beach topography changes from month to month**
- **Accumulate data for State to develop restoration plans for our beaches**
- **Document the effects of development, coastal storms and rising sea levels**

Team Member Duties

- **Team Leader**

- **Purpose:** to provide coordinating and organizational support to team members
- **Responsibilities:**
 - Regular contact with program coordinator
 - Assist program coordinator with volunteer recruitment needs
 - Coordinate profiling schedule with team members
 - Tracking supplies and equipment
 - Ensuring completed data sheets are recorded
 - Process beach photos
- **Qualifications:**
 - Basic communication skills
 - Genuine interest in protecting the beach
 - Basic organizational skills

Team Member Duties

- **Volunteer Monitor**
 - **Purpose: To conduct beach profile monitoring on a monthly basis**
 - **Responsibilities:**
 - **Help with beach profiling once a month**
 - **Stay in contact with Team Leader**
 - **Assist Team Leader for finding a replacement when unable to perform monitoring**
 - **Assist Team Leader with various tasks when able**
 - **Qualifications:**
 - **Basic communication skills**
 - **Genuine interest in protecting the beach**
 - **Ability to work in a team environment**

Team Member Duties

- **Volunteer Data Entry**
 - **Responsibilities:**
 - Use web-based form to type in data collected at each beach site
 - **Qualifications:**
 - Basic communication skills
 - Genuine interest in protecting the beach
 - Ability to work in a team environment

Description of Measuring Stakes

- These Stakes are used to create a topographic profile of the Beach
- There are two Stakes, one is known as the frontal and the other is called the back Stake.
- Each stake is graduated in CM, the total length is 140 CM.
- The frontal stake is used by the person taking the reading.
- The back stake is used to align with the horizon and to stay consistent with line of sight with land marks



University of Maine / Maine Geological Survey Emery Method Beach Profile Log Sheet

Page ___ of ___

Profile Name: _____ Date: _____ Start Time: _____

Team Names: _____ Visibility of Horizon: _____

Back Stake Sand Elevation (if used): _____ Front Stake Sand Elevation: _____

General Condition of Beach and Dune: _____

Vertical Units: _____ Horizontal Units: _____

Vertical	Horizontal	Notes	Vertical	Horizontal	Notes
1	*		0		
2			27		
3			28		

* Sand elevation at starting point (pin or stake): minus (-) when pin above sand, plus (+) is sand above pin. Others: Use a negative number when the front pole is lower.

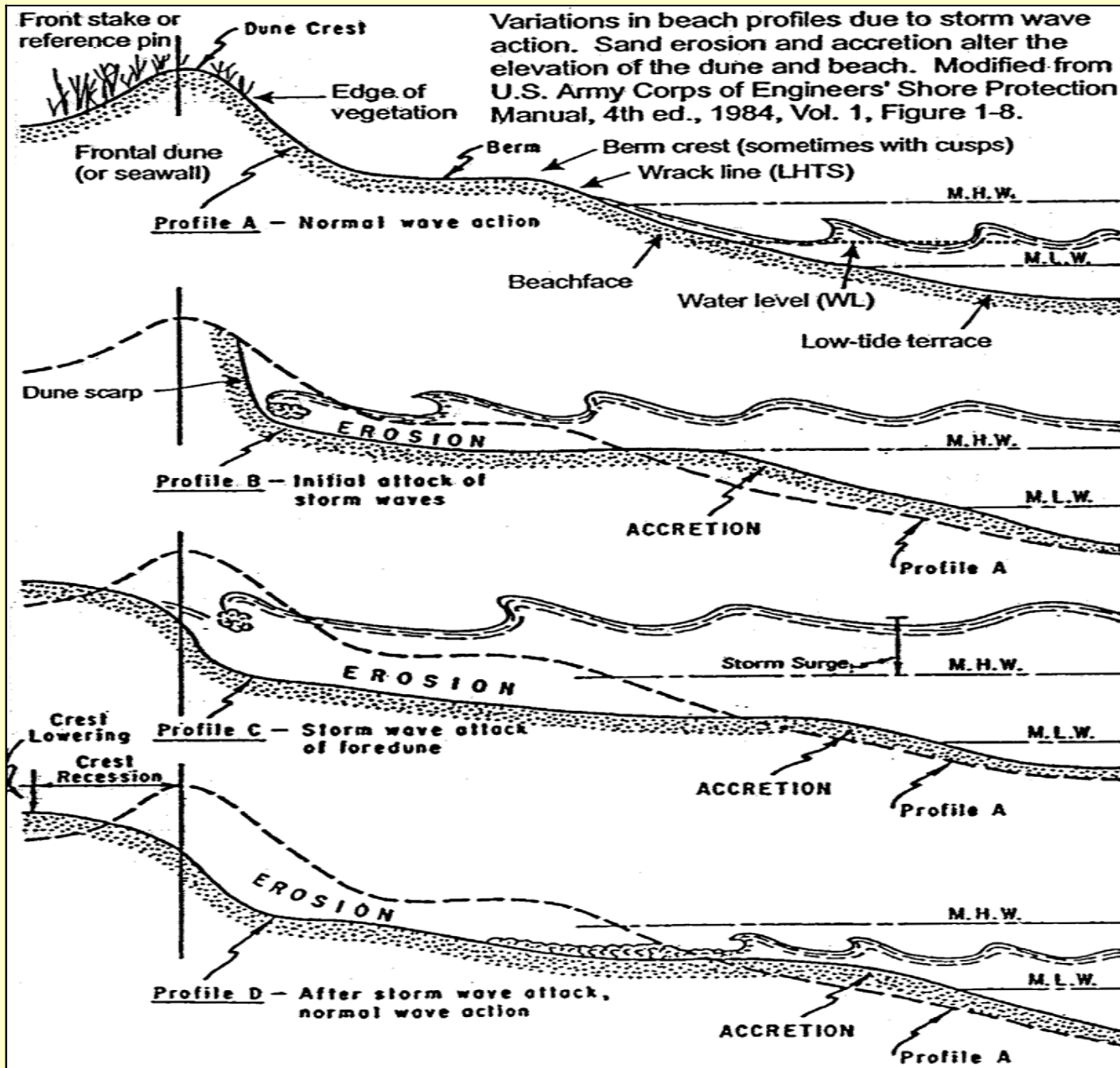
- **Profile Name:** First enter the name of the Profile, such as W00, W1, W2, ETC.
- **Date:** Enter the date of Profiling
- **Start Time:** Enter the time when you actually start the measuring the profile. This is important for latter calculations
- **Team Names:** Record the names of the team members working this profile.
- **Visibility of Horizon:** such as excellent, good, fair, hazy, poor.
- **Back Stake Elevation(if used)**
- **Front Stake Elevation:** This is where you enter the height of the monument from top of sand to top of monument. This is also you first measurement entered in #1.
- **Enter your second measurements both vertical and horizontal.** Most times, the horizontal measurement will be 3 meters.
- **After you record your last measurement at the water line, record your stop time in the notes.**

Standard Comments and Abbreviations

This is helpful list of comments you can use to fill in the NOTE section of the data sheets. Whatever you observe in between the measuring stakes, such as dunes, sand, high water line, seawall, fence, seaweed, etc., enter this information into the notes section following the data entry.

Standard comments and abbreviations:

front/back stake disturbed	front or back stake disturbed - stake has been removed or vandalized
seawall	seawall position
fence	fence position
dune cr	dune crest - highest point in dune
edge vegetation	edge of dune vegetation
LHTS	Last High Tide Swash (LHTS) - marked by line between dry and wet sand
SHTW	Spring High Tide Swash (SHTS) - wrack line at highest point on beach
wrack	wrack line - collection of seaweed and marine debris washed on beach
rock, cobble, or pebble	rock, cobble, or pebble
runoff channel	runoff channel
tide pool	tide pool
ice or snow	ice or snow frozen to beach
berm cr	berm crest - highest point on the sandy, "beach blanket" area of beach
scarp	vertically eroded "cliff" on seaward edge of dune
cusps	water-washed ridges in sand berm that are sinuous along the beach
sand bar	build up of sand in lower profile
trough	depression of sand in lower profile
accretion, _____ buried	accretion, _____ (features) buried since last month
WL	water line
[other as needed]	other comments, please describe _____



Guide to Drawing in the Field Sketch

At the bottom of your data sheet, you have an open area. Here you are to hand draw a profile of the section of beach you have or will profile. Start at the left with a seawall, dune or rocks. Label as such. As you draw in the beach working to the right, add what you observed; high tide mark, seaweed, rocks, tidal pools, etc. Stop at the water line.

Examples of field sketches are provided on the back of your datasheets and on the previous frame.

Photo Instructions

If a member of your team has a digital camera and is willing to make it available for program use, please do so. Each resulting JPG should be titled with the monuments name, such as W02-1, W02-2 etc. Email to Steve Dickson at Maine Geological Survey. His e-mail is Stephen.M.Dickson@maine.gov

Instruction for Wells Beach

NOTE: Our geologist say it's helpful to have people in the pictures! It provides a better sense of scale and depth, son don't be shy about including team members!

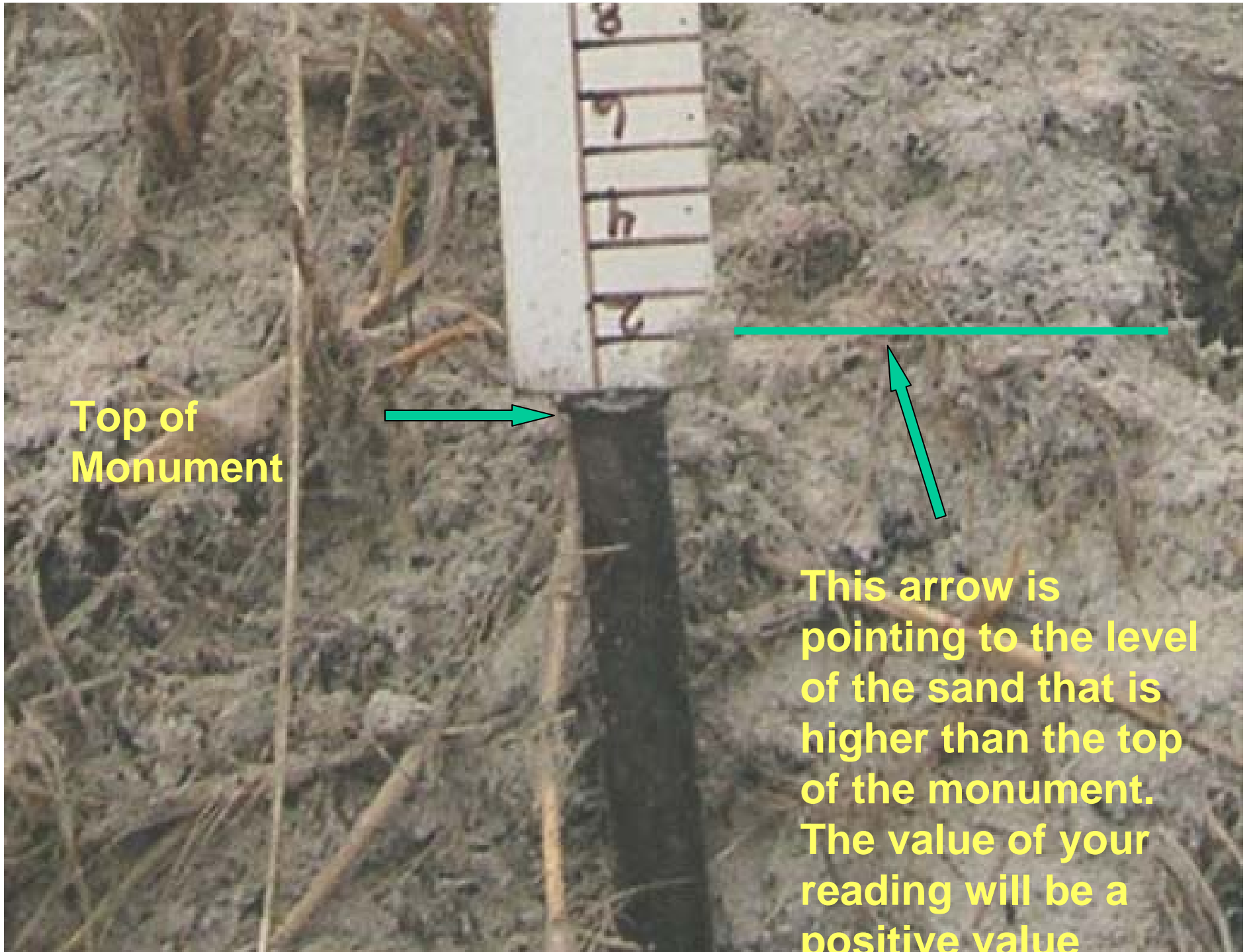
Take 9 photos if using a single use camera, or 8 photos if taking digital pictures:

1. If using single use camera, make for your first photo, a sign with beach name and the date, including year. This sign can be taped to the back of the clipboard.
2. ON profile 00-take three photos from mid-tide elevation:
 - a. east parallel to shoreline
 - b. west parallel to shoreline
 - c. Toward dune or seawall.
3. Next to profile 2, take one photo looking north toward the jetty, parallel to road with poles in the line in the foreground
4. Next to profile 3, take one photo looking north toward the jetty, parallel to road with poles on the line in the foreground
5. Next to profile 4, take three photos from mid-tide elevation:
 - d. east parallel to shoreline
 - e. west parallel to shoreline
 - f. toward dune.

This is your initial measurement taken on the monument.


This arrow is pointing to the top of your monument. Notice that the level of the sand is below the top of the monument. The value of your measurement will be a negative value (-40 cm).





Top of Monument

This arrow is pointing to the level of the sand that is higher than the top of the monument. The value of your reading will be a positive value



**Taking our first
measurement on
monument W4 near
post #16**

On this measurement, your measuring the height of the rebar above the dune.

This value will be entered on your data sheet as Frontal and first measurement.

Start your next measurement from this rebar. Be sure to keep your line of sight true.

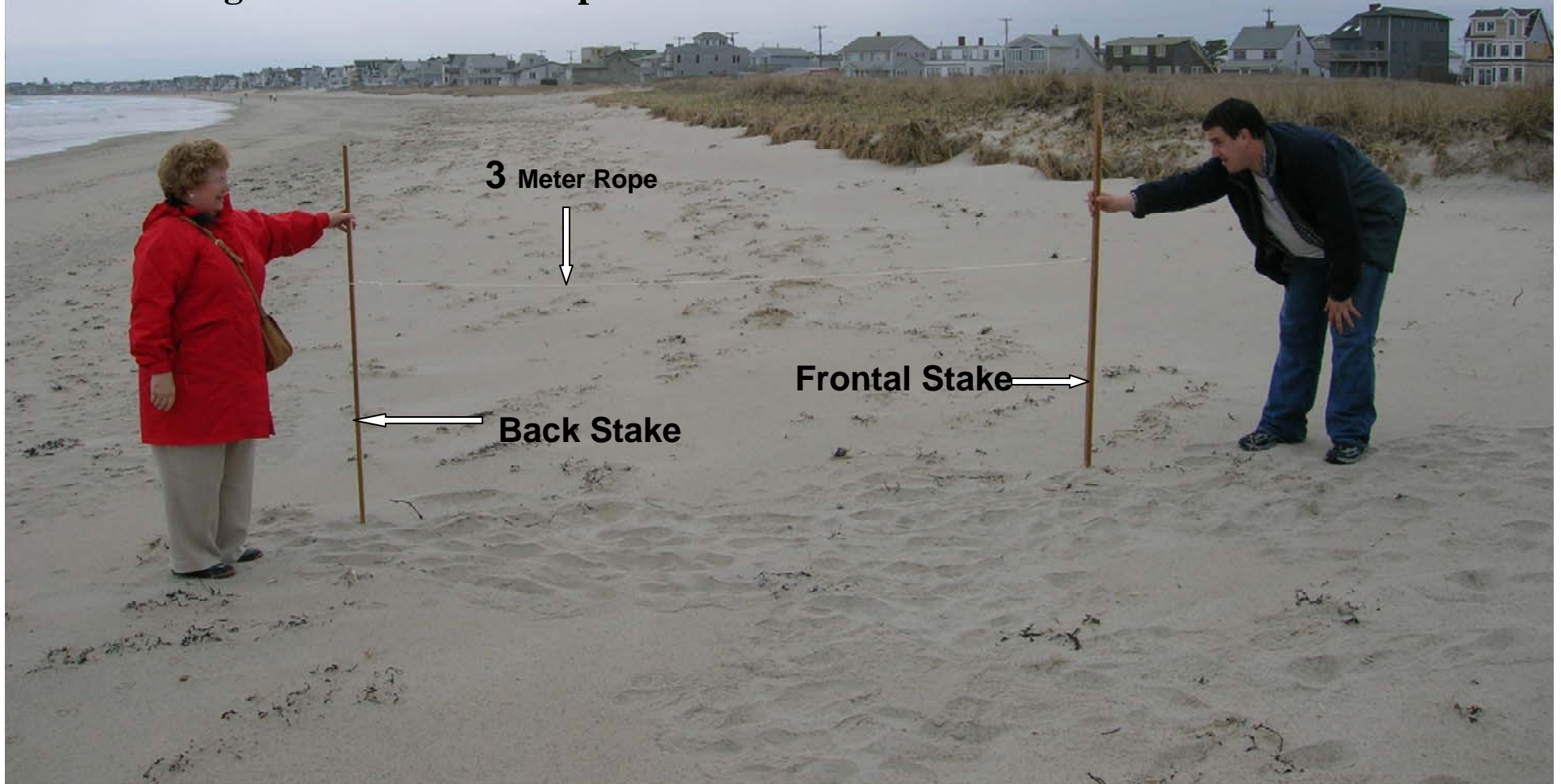
Remember to record the start time.

Demonstrating first measurement from the monument. You will notice a telephone pole in the background. We're lining up with this pole and monument to maintain our line of sight



Telephone Pole

Here we are demonstrating the a full length view of measuring. Its important to keep stakes vertical and the 3 meter rope level and tight. In the Notes section of the data sheet you would enter Sand. That is what you would find between the stakes. Also, the back stake is lower than the frontal stake. The measurement value you'll enter on the datasheet will be minus. Note: when placing stakes, do not force them into the sand, gently place them on the ground so that they will not sink, but leave a foot print. When Jeremy move the front stake, he'll place it in the footprint of the back stake. Then Margo will use the note landmarks for her line of sight to locate her new placement of stake.



Note: when placing stakes, do not force them into the sand, gently place them on the ground so that they will not sink, but leave a foot print. When Jeremy move the front stake, he'll place it in the footprint of the back stake. Then Margo will use the note landmarks for her line of sight to locate her new placement of stake.

Final Measurement: here we have Jeremy and Margo taking the final measurement at W4. The water line falls in between the stakes. Note the time of last reading and enter it into the notes. Go have a warm cup of Joe.

