

Mandatory Field Trip #3

Bluff and Beach Erosion – Beach Sand Cells

Moonlight Beach - Encinitas, CA

Wednesday, July 12, 2018

Introduction

This mandatory fieldtrip assignment involves participating in a local field trip to the beach which will focus on shoreline processes, including shore erosion, deposition, longshore drift, and bluff stabilization efforts. Students must complete a field trip worksheet questionnaire during the fieldtrip. The fieldtrip worksheet is due at the end of the fieldtrip.

Encinitas Coastal Erosion Fieldtrip

Date: Wednesday July 11 -- Meet at 11:15 AM Finish by 12:45 PM

Extra Credit Option: Arrive one hour early (10:00 am) and spend 1 hour in the ocean with the professor, or pick up trash on the beach for one hour and earn 3 extra points. Note that you must personally contact the instructor at the meeting location at 10:00 am and then at 11am to earn the extra credit.

Where to meet: Moonlight Beach, Encinitas - Meet at the picnic tables between the bathrooms and the volleyball courts.

How to Get There: A number of road maps are posted at this site that should be sufficient for finding all the field trip stops. If there still is uncertainty, then check with a good road map. It would be a good idea to download and print-out the road maps for this fieldtrip found at this site. Below is a link having directions and a map from Google Maps:

Map: <http://maps.google.com/maps?q=33.047743,-117.29771&ll=33.047743,-117.29771&spn=0.1,0.1&t=h>

Directions: <http://www.a-zsandiegobeaches.com/moonlight.htm>

Beach Description : <http://www.beachcalifornia.com/moonlit.html>

How long?: The trip will probably take about one and a half hours to complete (11:15 am to 12:45 pm).

Cancellation due to Weather: The field trip will be cancelled if it rains (very unlikely!!).

General Purpose: To familiarize students with the coastal geology of San Diego North County, and to better understand the concepts concerning sedimentary rocks, depositional environments, shoreline processes, geomorphology, and weathering and erosion, with an emphasis on the recent bluff failures and seawall construction.

Activities: Observe, study, and discuss the recent bluff failures and seawall construction along local beaches, with consideration of the nature and origin of the beaches, ocean waves and currents, and bluff geology. We will hike from Moonlight Beach to Beacons Beach and back.

Field Assignment: Students will be required to complete a field trip question handout, which includes answering fill-in questions, observing ocean and bluff conditions, and writing a short reflection on the field trip experience to be turned in via the online classroom assignment portal. The required worksheet that you must bring with you is found at the following link:

Required In-Person Worksheet Download link:

http://seascisurf.com/costa_ocean_fieldtrip3_worksheet.pdf

Grade Points: Students will receive up to 30 credit grade points for completed the field trip, which includes attendance and the completion and submittal of a written reflection.

What to Bring: Students should bring the worksheet, a clipboard, writing tools, water, sunscreen, and a camera. - Surfboard and Frisbee optional.

What to Wear: Loose, comfortable clothes (T-shirt and shorts is good) along with a sweatshirt or windbreaker. Beach weather may could range from sunny and warm to overcast and cool. So it is a good idea to be prepared either way.