

# GEOGRAPHY YEAR 11

## Interaction of the Biophysical Environment Fieldtrip

### Stage 6 Sample CEC Fieldtrip

### At the CEC and North Narrabeen



**Student Outcomes** The students will learn to:

- P3 Explain how Narrabeen's coast functions in terms of its biophysical factors.
- \* To analyse the effects of human impacts on the functioning of the hydrosphere at the lagoon entrance and assess if this is being managed sustainably.
- P7 Formulate & implement a plan for an active geographical inquiry of a beach dune, started pre-fieldtrip.
- P9 Use maps, aerial photographs and fieldwork to conduct a geographic inquiry on Narrabeen Headland
- \* Investigate a Case Study – the Coastal Development Issue on Collaroy / Narrabeen Beach.
- P10 Apply mathematical ideas and techniques to analyse geographical data, completed after the fieldtrip.

### Sample Interaction of the Biophysical Environment Program and suggested times:

- 09:30 Arrive CEC at North Narrabeen, brief lecture on the Narrabeen Coast to introduce:  
An overview of how the interaction of the biophysical environment has produced this coast.  
Review what each sphere contributes to this area.  
Local coastal and hydrological processes and the role of beach dunes.  
Past storm damage and current management of oceanfront development.
- 10:30 Begin fieldstudy at Narrabeen Headland, identify the physical processes that have contributed to the production of the Narrabeen coastline. Complete a field sketch of the case study area.
- 11.20 On top of Narrabeen Headland, measure and record weather variables such as temperature, wind direction and strength to explain how these contribute to the vegetation present. Interpret fieldmaps and use dune field resources to identify coastal plants.
- 11.45 Sketch the lagoon entrance; examine how longshore currents and waves can bring sediment into the entrance. Assess maintenance dredging and flood risk management.
- 12.15 Based on pre-fieldwork plan, students will implement their active geographical inquiry into the functioning and status of a beach dune. Students will utilise a range of field techniques including: transects, measuring temperature, wind strength and direction, gradient, soil characteristics and identification of key plant species. Collate and briefly interpret data if time permits.  
(Synthesise and graph primary data post fieldtrip.)
- 13.00 Lunch at NNSLSC, where shade, toilets and two food shops are nearby.  
Travel by bus to Collaroy Beach for the oceanfront development. Sketch the beach including the 12 storey apartment building on the foredune. Compare the width of the berm to the northern end of the beach. Describe the worst storm scenario and the current Council Beach Management Plan that tries to address this complex issue. Discuss why this site has not been sustainably managed.
- 14.00 Conclude a productive and enjoyable fieldtrip.



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