

SHEET 6 TO 11 – ADAPTATION ACTIONS – COASTAL MANAGEMENT AND ENGINEERING

SHEET 7 – BEACH NOURISHMENT

Beach nourishment involves providing additional sand to increase the volume of sand on the upper beach.

Sand can be sourced from the intertidal zone, quarries, off-shore (if appropriate) or other sources. Beach nourishment is typically combined with dune maintenance and protection, to enhance resilience to coastal hazards.



Beach nourishment has the benefit of providing increased protection from coastal hazards while maintaining the natural values and aesthetics of the beach and coastline. Beach nourishment is typically achieved through sand scraping or importing sand.

Sand scraping

Sand scraping involves mechanically moving sand from the intertidal zone to the dune or upper beach zone, mimicking the natural beach recovery processes (at an accelerated rate). The overall sediment budget of the beach remains the same.



Importing sand

Importing sand to nourish the beach involves sourcing and distributing sand to increase sand volume and build up the dune system. Sand can be placed through a variety of methods, including pumping via a pipeline, sand rainbowing from off-shore, or direct profile nourishment and dune nourishment with excavators.



Beach nourishment volumes can be designed to mitigate coastal hazards at specific sites for a number of years. A routine beach nourishment program can often be a more cost-effective adaptation option (with added recreational / aesthetic benefits) for mitigating coastal hazards than last line of defence structures (seawalls).



Relevant and priority areas

A detailed beach nourishment assessment is required wherever major beach nourishment is pursued, to evaluate site specific issues including:

- Potential sources of sediment and longevity of sediment supply
- Characteristics of desired sediment (e.g. colour, grain size, material)
- Volume of material required over the short and long term.

Beach nourishment is relevant to sandy open coast localities.

Beach nourishment		
	Sand scraping	Import sand to nourish the beach
Cooloola (Estuarine frontage)		
Cooloola (Ocean frontage)		
Cooloola Cove		
Inskip Point South		
Inskip Point Spit		
Rainbow Beach (Estuarine frontage)		
Rainbow Beach (Ocean frontage)		
Tin Can Bay		

	Relevant / feasible
	Priority
	Not applicable