



Erosion on Narrabeen Beach, 2007



Beach replenishment, 2006

Collaroy-Narrabeen Beach

Collaroy-Narrabeen Beach has a long history of storm damage and coastal erosion, with the beach ranked as the third most at risk from coastal processes in Australia. It is the most intense and highly capitalised shoreline in Warringah, with total property value estimates exceeding \$500 million.

Beach replenishment is the process of replacing beach sand which has been removed via natural coastal processes, including erosion. Collaroy-Narrabeen Beach has undergone a number of replenishment operations since 1975.

Sand from the Narrabeen Lagoon clearance operation will be used for beach replenishment. This will be staged, starting with unloading of sand adjacent to the northern end of the car park opposite Jenkins Street, just north of the Collaroy Beach Ex-Servicemen's Club building. The unloading process will then gradually head north from this point to Stuart Street, Wetherill Street and Mactier Street.

Council has recently prepared a Coastal Erosion Emergency Action Plan (CEEAP) for Beaches in Warringah, and planning is underway for the preparation of a Coastal Zone Management Plan (CZMP) for Collaroy-Narrabeen Beach. The CEEAP identifies risks associated with coastal erosion and outlines which emergency action measures should be undertaken by Council, landowners and the SES before, during and after major erosion events. It reflects the recent reforms to the management of coastal erosion in NSW and the amendments to the Coastal Protection Act 1979. The CZMP will define the coastal erosion hazards and describe actions to be implemented in the medium to long term to manage the risks from these hazards. Findings from collaborative scientific research with the University of New South Wales and other partners on beach erosion monitoring and forecasting will help to inform these plans.

Further information on the management of Collaroy-Narrabeen Beach is available at warringah.nsw.gov.au/environment/coastline.aspx

FURTHER DETAILS

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Warringah Council



Office of Environment & Heritage



PITTWATER COUNCIL



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warringah.nsw.gov.au



Flooding at Narrabeen Shops, 1942



Manual opening, 1940's

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Community Guide

to the Clearance of the Narrabeen Lagoon Entrance and Replenishment of Collaroy-Narrabeen Beach



Aerial view of Collaroy-Narrabeen Beach and the Narrabeen Lagoon

Background

To reduce the risk of flooding, Warringah and Pittwater Councils, with the assistance of the NSW Office of Environment and Heritage, will remove approximately 40,000 cubic metres of marine sand from the entrance of Narrabeen Lagoon. The sand will be spread over selected locations along Collaroy-Narrabeen Beach. Warringah Council has engaged specialist consultant Cardno to project manage the activities described in this Community Guide. The clearance will be similar to operations conducted in 2006. An explanation of the processes involved and examples of previous operations are described in further detail in this Guide.

How does council manage the lagoon and beach?

The clearance operation is essentially a maintenance activity that must be undertaken every few years when the Lagoon entrance becomes clogged.

The clearance operation is an integral part of the management actions in the adopted *Floodplain Risk Management Plan for Narrabeen Lagoon* and the adopted *Coastline Management Plan for Collaroy-Narrabeen Beach* and links with the *Narrabeen Lagoon Estuary Management Plan*. The works will be funded jointly by Warringah and Pittwater Councils and the NSW Office of Environment and Heritage.

How will the environment be protected?

A Review of Environmental Factors (REF) has been prepared to document the likely impacts of the works on the environment and identify appropriate protective measures. Potential environmental impacts can stem from the disturbance of the sediment and may affect native plants and animals. However, potential impacts will be mitigated by ensuring that comprehensive environmental management measures are adhered to.

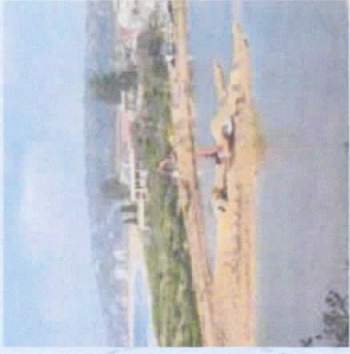
For example, cloudy water (referred to as turbid) in the lagoon due to sediment being stirred up during the clearance operation will be contained by silt curtains which will be placed around the perimeter



Before clearance



During clearance 2006



During clearance 2006

Narrabeen Lagoon Entrance

The entrance to Narrabeen Lagoon becomes periodically filled with marine sediment when the amount of sand moving into the lagoon entrance exceeds the amount of sand being removed by the outgoing tide. The closure of the lagoon entrance for extended periods can have quite significant socio-economic and environmental impacts on the lagoon and surrounding areas, including:

- Increases in the severity of flooding of low-lying residential/commercial areas surrounding the lagoon, as well as creeks
- Reductions in Lagoon water quality due to impaired tidal flushing from the entrance
- Decreases in biodiversity due to reduced access through the entrance

There have been nine major clearance operations at the lagoon entrance since 1975, with the most recent in 2006, during which approximately 45,000m³ of sediment was removed and transported to selected locations along Collaroy-Narrabeen Beach and the Lakeside Caravan Park.

The proposed 2011 clearance works will take place within the entrance area of Narrabeen Lagoon to the east and west of the Ocean Street Bridge. The work compound will be located within the Birdwood Park Car Park, near the North Narrabeen Surf Lifesaving Club.

of the submerged clearance work area. This will ensure that any disturbed sediment is contained within the works area. Similarly, the movement of fish will be maintained by only using silt curtains around the immediate work site, and not across the entire water body. Excavation will be carried out at least ten metres from delicate seagrass beds.

What effect will the clearance and beach replenishment have on local traffic?

The works are expected to have a temporary minor impact upon local traffic conditions. In order to share the traffic load, trucks will use a looping route along Walsh Street and Pittwater Road, returning via Ocean Street. This will require a temporary relaxation of the 3T limit on Walsh Street.

When will the works be carried out?

The excavation is anticipated to begin in September 2011 and finish in early December 2011.