



Office of
Environment
& Heritage

**Code of Practice under the
*Coastal Protection Act 1979***

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Explanatory notes

Note: These explanatory notes do not form part of the Code of Practice and are provided for guidance only.

The primary purpose of this document is to detail requirements related to the following sections of the *Coastal Protection Act 1979*:

- placement of material that forms part of temporary coastal protection works under the provisions of section 55P(2)(f)
- maintenance of temporary coastal protection works under the provisions of section 55R(1)(d)
- removal of temporary coastal protection works on public land under the provisions of section 55VC(1)(b)
- removal of certain material and structures unlawfully placed on beaches under the provisions of section 55ZA(3)(b)
- restoration of land, including public land, under certain circumstances under the provisions of section 55ZC(5)(b).

These requirements are to be read in conjunction the *Coastal Protection Act 1979* and the Coastal Protection Regulation 2011, which are available at www.legislation.nsw.gov.au.

This version of the Code of Practice replaces the version published by the Office of Environment and Heritage in January 2013.

The *Work Health and Safety Act 2011* applies to all of the activities under this Code, including the placement, maintenance and removal of temporary coastal protection works. This Code does not specify applicable safety requirements under this Act. The *Work Health and Safety Act 2011* is available at www.legislation.nsw.gov.au.

Definitions

The following is a list of definitions for terms used in this Code of Practice.

Beach, temporary coastal protection works, public authority and public land: have the same meaning as in the *Coastal Protection Act 1979*.

Escarpment: the vertical or near-vertical drop in the profile of a beach caused by tidal or storm erosion.

Professional coastal engineer: a person with qualifications and experience suitable for registration by the National Engineering Registration Board as a professional engineer in the civil engineering general area of practice or the equivalent registration under the Queensland *Professional Engineers Act 2002*, with expertise in coastal engineering.

Sandbag: a fabric bag that can be filled with sand which meets the requirements under the *Coastal Protection Act 1979*, including the Coastal Protection Regulation 2011 and this Code.

The Act: the *Coastal Protection Act 1979*.

Works: temporary coastal protection works.

1 Placement of works

These requirements relate to section 55P(2)(f) of the *Coastal Protection Act 1979*.

1.1 Permitted locations for placement of works

Material for works may only be placed at a location specified in the schedule at the end of this Code of Practice. Any associated vehicular access to a beach at this location must be by the access points nominated in the schedule.

1.2 Requirements for placement of works

1.2.1 Placement and maintenance of sandbag works

Works comprising the placement of sandbags must meet the following requirements:

- (i) the height of the works must not exceed 1.5 metres from the base (or toe) of the escarpment
- (ii) the works must be placed against the seaward side of the escarpment and be within 4 metres of the escarpment
- (iii) the slope of all faces of the works must not exceed 34 degrees from the horizontal plane
- (iv) no voids on any exposed faces of the works, or between the works and the escarpment, of a size that may present a public safety risk.

1.2.2 Placement and maintenance of sand works

Works comprising the placement of sand must meet the following requirements:

- (i) the sand must be placed against the escarpment on the seaward side
- (ii) the slope of the face of the works must not exceed 34 degrees from the horizontal plane.

1.3 Material requirements

1.3.1 Sand requirements

The sand used in the works must comply with the following requirements:

- (i) the sand must not contain a proportion of heavy metals or other toxic contaminants that exceed the criteria set out in the *National Environment Protection (Assessment of Site Contamination) Measure 1999*. This requirement does not apply to quarried sand or sand from an alternate source where the landowner or their agent has obtained prior written approval from the applicable local council or the Office of Environment and Heritage that this requirement does not apply
- (ii) the colour and texture of the sand is to be similar to that of existing dunes within the vicinity of the works
- (iii) the sand is not permitted to be sourced from the beach on which the works are to be placed.

1.3.2 Sandbag and geotextile fabric requirements

- (i) Sandbags used in the works are to be manufactured from geotextiles and have a volume of 0.75 cubic metres when filled.
- (ii) Geotextiles used for these sandbags are to be non-woven, staple fibre and needle-punched. The geotextiles are to have a minimum tensile strength of 21 kilonewtons per metre (kN/m) (tested to Australian Standard 3706.2–2012 *Geotextiles – Methods of test – Determination of tensile properties – Wide strip and grab method*) and a minimum California bearing ratio burst strength of 5400 newtons (N) (tested to Australian Standard 3706.4–2012 *Geotextiles – Methods of test – Determination of burst strength – California bearing ratio (CBR) – Plunger method*).

1.4 Additional construction requirements

- (i) Excavation of the escarpment for the placement of works is not permitted. When placing works comprising sandbags, limited excavation of the beach (other than the escarpment) may be undertaken to enable the bottom layer of sandbags to be placed approximately horizontally. Any excavated sand is to be placed elsewhere on the beach, resulting in a reasonably even beach terrain.
- (ii) All sandbags used in the works are to be sewn closed before placement.

2 Maintenance of works

These requirements relate to section 55R(1)(d) of the *Coastal Protection Act 1979*.

Works comprising sandbags that have been damaged or displaced from their original position and no longer meet the requirements under the Act (note this includes requirements under the Coastal Protection Regulation 2011 and this Code) are to be relocated to comply with the applicable requirements or removed from the beach as soon as practicable. This includes sandbags located elsewhere on the beach which were originally placed as part of the works.

3 Removal of works and restoration of land

These requirements relate to sections 55VC(1)(b) and 55ZC(5)(b) of the *Coastal Protection Act 1979*.

3.1 Removal of sandbag works

Sandbags used in the works are to be opened and the sand distributed on the beach, resulting in a reasonably even beach terrain. Emptied sandbags are to be removed from the beach.

3.2 Restoration of land

- (i) In relation to the removal of works (whether in accordance with section 55VC of the Act or an order under section 55ZC), areas disturbed during the placement, maintenance and removal of the works are to be restored to a condition as close as is reasonable to the condition that existed before the works were placed. Sand that has fallen from the escarpment to the beach is to be distributed on the beach, resulting in a reasonably even beach terrain.

- (ii) In relation to the alteration or repair of temporary coastal protection works in accordance with an order under section 55ZC of the Act, if any area that was disturbed during the placement or maintenance of the works is no longer covered by or under the works, that area is to be restored to a condition as close as is reasonable to the condition that existed before that part of the works was placed.
- (iii) Restoration of damaged dunes is to be carried out in accordance with the document entitled *Coastal Dune Management: A Manual of Coastal Dune Management and Rehabilitation Techniques*, published by the NSW Department of Land and Water Conservation in 2001. Dune escarpments should be restored in accordance with this document to the extent to which this is reasonable for the particular escarpment, with slopes not exceeding 34 degrees from the horizontal plane.

4 Restoration of land after an order to remove illegal material or structure

These requirements relate to section 55ZA(3)(b) of the *Coastal Protection Act 1979*.

- (i) Areas disturbed by the deposit of the material or the erection of the structure concerned are to be restored to a condition as close as is reasonable to the condition that existed before the material was deposited or structure was erected. Sand that has fallen from a dune escarpment to the beach is to be distributed on the beach, resulting in a reasonably even beach terrain.
- (ii) Restoration of damaged dunes is to be carried out in accordance with the document entitled *Coastal Dune Management: A Manual of Coastal Dune Management and Rehabilitation Techniques*, published by the NSW Department of Land and Water Conservation in 2001. The dune escarpment should be restored in accordance with this document to the extent to which this is reasonable for the particular escarpment, with slopes not exceeding 34 degrees from the horizontal plane.

5 Safety requirements for placing, maintaining and removing works

These requirements relate to sections 55P(2)(f), 55R(1)(d) and 55VC(1)(b) of the *Coastal Protection Act 1979*.

In the event of any inconsistency between these requirements and those under the *Work Health and Safety Act 2011*, the requirements under the Act take precedent.

5.1 General requirements

- (i) Before any works are placed, maintained or removed, a temporary safety fence must be erected around the area where works are to be placed or are located and any additional area used by earthmoving equipment or other vehicles for the purpose of placing, maintaining or removing the works. The safety fence is to be removed after the placement, maintenance or removal of the works is completed.
- (ii) In addition to the requirements under (i), if the escarpment concerned exceeds 1 metre in height, an additional temporary safety fence must be erected before any works are placed, maintained or removed. The safety fence must be erected on the landward side of the escarpment at a distance of at least 2.5 times the greatest height of the

escarpment. For example, if the escarpment is 2 metres high at its highest point, then a safety fence must be erected 5 metres from the escarpment on its landward side. The area between the safety fence and the escarpment must not be used during the placement, maintenance or removal of the works. The safety fence is to be removed after the placement, maintenance or removal of the works is completed.

- (iii) Sand or sandbags comprising the works must be placed and maintained in a manner that minimises the likelihood of the collapse of the escarpment. Should a collapse of the escarpment occur, an authorised officer must require the landowner to obtain, before continuing with placing the works, a written opinion from a professional coastal engineer that the placement of the works does not present a significant safety risk. This opinion must be kept by the landowner until the works are removed.
- (iv) Subject to paragraph 1.4, excavation of the escarpment for the placement of the works is not permitted.
- (v) Routine maintenance or removal of the works or restoration of land following removal of works is not to be undertaken during storm conditions. Emergency repairs to the works must be undertaken where the landowner has obtained a written opinion from a professional coastal engineer that the repairs to the works do not present a significant safety risk. This opinion must be kept by the landowner until the works are removed.

5.2 Safety requirements under storm conditions

Works are not to be placed during storm conditions unless the landowner obtains a written opinion from a professional coastal engineer that the placement of the works under these conditions does not present a significant safety risk. This opinion must be kept by the landowner until the works are removed.

Schedule – Authorised locations for placing works and associated beach access

Authorised locations for placing works (beach name, suburb/town name)	Authorised beach access
Avoca Beach (south), South Avoca	South Avoca Surf Life Saving Club carpark
Avoca Beach (north), North Avoca	View Street
Basin Beach, Mona Vale	Beach access track from corner of Surfview Road and Basset Street (alternate access – adjacent to Mona Vale Surf Life Saving Club, Seabeach Avenue)
Belongil Beach and Brunswick Heads Beach (south of Tyagarah Nature Reserve), Byron Bay	Childe Street; Manfred Street; Don Street; Lots 10, 11, 12 in DP 243218
Blue Bay Beach, Blue Bay	Blue Street
Bilgola Beach, Bilgola	From north end of Allen Avenue (alternate access – Bilgola Avenue at Allen Avenue)
North of outlet from Cakora Lagoon and east of Ocean Street, Brooms Head	Track from Ocean Street (south of bridge)
Callala Beach, Jervis Bay	Any road leading off Quay Road
Campbells Beach, Sapphire Beach	Emerald Avenue
Collaroy Beach, Collaroy	Collaroy Beach carpark (opposite Jenkins Street), Frazer or Stuart streets
Collingwood Beach, Vincentia	Any road leading off Elizabeth Drive
Fishermans Beach, South Collaroy	Anzac Avenue
Forresters Beach, Forresters Beach	Kalakua Avenue, opposite Henrys Road
Hargraves Beach, Noraville	Elizabeth Drive (north end)
Narrabeen Beach, Narrabeen	Wetherill or Mactier Streets, adjacent to Narrabeen or South Narrabeen surf life saving clubs, Birdwood Park carpark or Clarke Street
North Avoca Beach, North Avoca	View Street
North Entrance Beach, The Entrance (North)	Curtis Parade
Copacabana – McMasters Beach, McMasters Beach	Gerda Road and Del Monte Place
Mollymook Beach, Mollymook (between Donlan Road and Mollymook Creek)	Mitchell Parade
Cabbage Tree Harbour Beach, Norah Head	Bald Street boat ramp area
Old Bar Beach, Old Bar	Pacific Parade at Rose Street or adjacent to the Taree Old Bar Surf Club, Ungala Road
Patonga Beach, Patonga	Brisk Street
Pearl Beach, Pearl Beach	Coral Crescent; Pearl Parade; Gem Road
Surfside Beach, North Batemans Bay	Timbara Crescent, North Batemans Bay

Authorised locations for placing works (beach name, suburb/town name)	Authorised beach access
(83–95 Timbara Crescent)	
Toowoomb Bay Beach, Toowoomb Bay	Binburra Avenue
Wamberal Beach, Wamberal	Adjacent to Wamberal Surf Life Saving Club, Dover Road
Wooli Beach, Wooli	Wooli Road (South Terrace)