

SOIL AND WATER MANAGEMENT PLAN

Harbour Control Tower Decommissioning and Removal

Client: Barangaroo Delivery Authority

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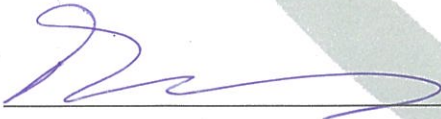
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Table of Contents

TERMS USED IN THIS DOCUMENT 3

1 INTRODUCTION 4

1.1 Overview 4

1.2 Scope 5

1.3 objectives 5

2 MITIGATION MEASURES 6

3 MONITORING AND REPORTING 7

4 TRAINING AND RESOURCES 7

APPENDIX A INDICATIVE EROSION AND SEDIMENT CONTROL DETAILS

TERMS USED IN THIS DOCUMENT

BDA	Barangaroo Delivery Authority
BPL	Boulderstone Pty Ltd
CFEMP	Construction Framework Environmental Management Plan
DP&I	NSW Department of Planning and Infrastructure
EPA	Environment Protection Authority
ESCP	Erosion & Sediment Control Plan
MCoA	Minister's Conditions of Approval
SWMP	Soil and Water Management Plan
SWMS	Safe Work Method Statement
SoC	Statement of Commitments

1 INTRODUCTION

1.1 OVERVIEW

Barangaroo (formerly East Darling Harbour) is a 22-hectare area of Sydney's harbour foreshore immediately adjoining the western edge of the Sydney CBD which has been identified for urban renewal by the NSW State Government. The site has been divided into three redevelopment areas - the Headland Park, Barangaroo Central and Barangaroo South.

The Barangaroo Headland Park involves the creation of a new parkland area and northern cove adjacent to Hickson Road. Boulderstone Pty Ltd (BPL) is contracted to the Barangaroo Delivery Authority (BDA) to undertake the Headland Park works, which is referred to hereafter as the project. Included in the site is the now unoccupied Harbour Control Tower (the tower).

BPL was engaged by the Barangaroo Delivery Authority (BDA) to prepare a Soil and Water Management Plan in support of an Environmental Assessment for the decommissioning and demolition of the tower that is present at the eastern portion of the Headland Park, Barangaroo development site located at Hickson Road, Sydney, NSW, 2000 (Figure 1). This Soil and Water Management Plan establishes the performance criteria and controls that will be implemented by the Contractor around the decommissioning / demolition program proposed for the tower.

As a part of the site development works, BDA is seeking approval for the tower be decommissioned and removed. The tower is located adjacent the main area of the Barangaroo Headland Park on Merriman Street.

This Soil and Water Management Plan forms part of Construction Framework Environmental Management Plan for the purpose of removal of the tower. The plan is required to:

- Include management measures, monitoring, and reporting requirements; and
- Provide measures that will be used to manage environmental risk and opportunities.



Figure 1: Barangaroo Headland Park

1.2 SCOPE

This plan addresses soil and water management issues and risks associated with the decommissioning and demolition of the tower and any impacts which are influenced by the removal methodologies and staging. It covers all areas where physical works will occur and off-site areas that may be impacted by works. Potential soil and water impacts have been identified during a qualitative assessment of the project.

This Soil and Water Management Plan is designed to sit within the context of the Construction Framework Environmental Management Plan that will be further developed by the future Contractor when appointed for the decommissioning and demolition works as supplemental to the overall Headland Park construction.

1.3 OBJECTIVES

The objectives of this Soil and Water Management Plan are:

- To minimise adverse soil and water quality impacts from the tower removal works;
- Meet the environmental performance objectives of the Barangaroo Delivery Authority;
- Ensure compliance with relevant environmental legislation; and
- Ensure environmental risks associated with the tower's removal activities are properly managed.

This plan is not a static document and will be reviewed and updated by the Contractor throughout the construction programme and the preparation of its CFEMP.

2 MITIGATION MEASURES

ID	Mitigation measure	Reference	Responsibility
SW1	All personnel will be informed of their responsibilities in reducing the potential for soil erosion and pollution while working on the project through the project induction and pre-start meetings	Best Practice	Foreman
SW2	All fuels, oils and chemicals in secure bunded areas and as per Dangerous Goods Storage requirements where applicable. Cover all permanent bunded areas. The bund capacity is to be capable of storing 110% of the capacity of the largest tank stored (DECC, 2007).	Best Practice	Foreman
SW3	Spill kits will be provided at all key construction areas, including any refuelling areas, near any permanent fuel/chemical storage bunds, and other static construction activities that present a risk of fuel, chemical or other fluid releases	Best Practice	Foreman
SW4	Minimise the area of disturbance at any one time to the extent necessary to undertake the stage of works in progress.	Best Practice	Project Engineer
SW5	Soil erosion and sediment control measures will be designed in accordance with the document titled " <i>Managing Urban Stormwater- Soils and Construction, Volume 1</i> ".	Best Practice	Project Engineer
SW6	Implement and maintain all site erosion and sedimentation controls as per the Erosion and Sedimentation Control Plan (ESCP) prepared for the site. This will be updated during the project to address changing site conditions and construction activity. ESCP will include specific details on the location of features such as: • Sediment traps; • Sediment basin • Holding tanks; • Water treatment plant; • Diversion banks; • Sediment fences/socks; • Earth bunds; • Stockpiles	Best Practice	Foreman Superintendent

	- Clean water flow paths; and - Other specific controls as required.		
SW7	Cover all loads departing site, including internal loads, to minimise potential spillage / dust generation.	Best Practice	Foreman
SW8	Prevention of mud tracking through the use of measures including rumble grids, wheel wash and wheel/tailbar wash down facilities.	Best Practice	Foreman
SW9	Disturbed areas will be stabilised following completion and/or suspension of construction activities. Permanent rehabilitation of sites will take place as soon as practicable following completion of works in accordance with an approved landscape plan.	Best Practice	Superintendent

3 MONITORING AND REPORTING

Item	Frequency	Responsibility	Reporting	Action if non-compliance detected
Inspection of the construction site for: - Erosion and control measures in working order - Assess and remove sediment accumulation - Disturbed/rehabilitated areas have adequate ground cover. - Assess effectiveness and install additional erosion/sediment control measures as required	Weekly and daily after storm event	Environmental Manager Foreman	To be documented in the Weekly Environmental Inspection Checklist	Notification to Superintendent / Foreman

4 TRAINING AND RESOURCES

Training
Inductions to address: - Personnel obligations. - Sensitivity of receiving environment i.e. Darling Harbour. - Emergency response, preparedness, notification and reporting. - Site water treatment chain i.e. capture and treatment in the water treatment plant. - Other relevant matters in the mitigation measures section. Toolbox talks to be conducted on: - Maintenance of erosion and sediment control measures.

- Stormwater management and control points.
- Mud tracking and the importance of minimising sediment accumulation on the roadways/worksites.
- Location and maintenance of spill response kits.
- Ongoing housekeeping.

Specialist training:

- Deployment of marine containment booms and land-based spill kits.
- Operation of water quality monitoring equipment (by or with specialist staff only).

Resources

- Temporary erosion and sediment control materials (geotextiles, silt curtains, etc).
- Water cart/street sweeper.
- Bunded oil/fuel/chemical storage areas and non-portable generators.
- Drip trays for portable generators and pumps.
- Water quality testing equipment (spot and continuous where relevant).
- Spill kit stock and refills.
- Environmental Team.
- Personnel to perform maintenance and cleanup duties.
- Specialist consultants/contractors.

Appendix A

Indicative erosion and sediment control details

(Source: Managing Urban Stormwater- Soils and Construction, Volume 1, Landcom, 2004)

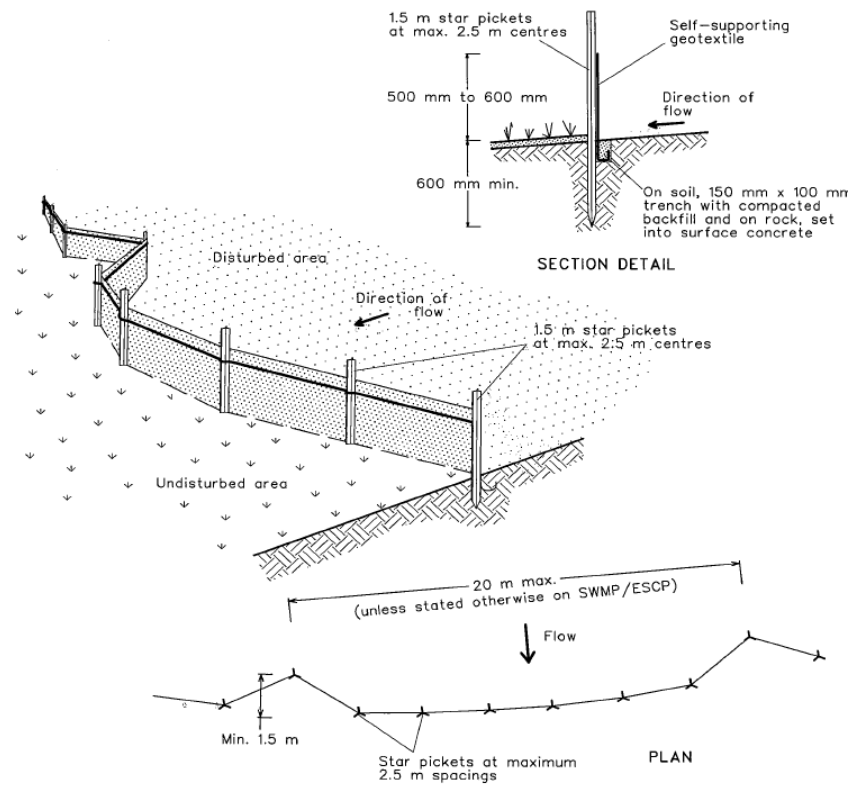


Figure 1: Sediment Fence

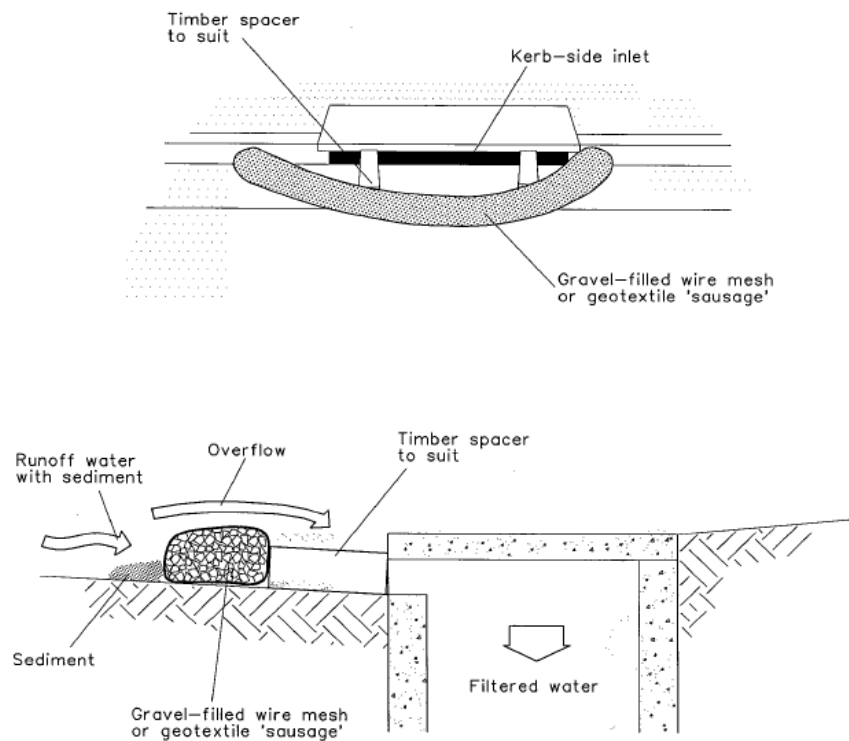


Figure 2: Mesh and Gravel Inlet Filter

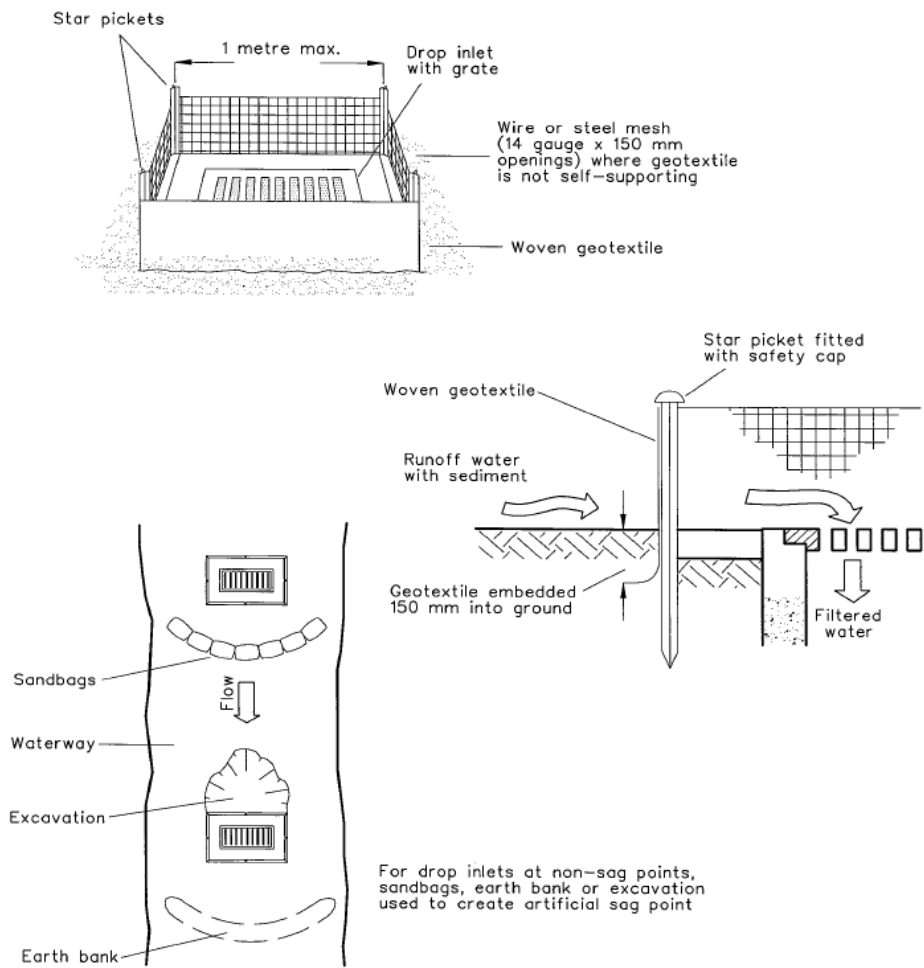


Figure 3: Geotextile Inlet Filter