

# EROSION AND SEDIMENT CONTROL PLAN AND PROCEDURES

**Blue Gum Community School** 

Mount Errington 1 Rosemead Road, Hornsby NSW (Lot A DP 327582)

Prepared by:

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29 April 2020



# Strategic Environmental and Engineering Consulting

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Any recommendations contained in this report are based on an honest appraisal of the opportunities and constraints that existed at the site at the time of investigation, subject to the limited scope and resources available. Within the confines of the above statements and to the best of my knowledge, this report does not contain any incomplete or misleading information.

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29 April 2020





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# **Version Register**

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# 1 INTRODUCTION

# 1.1 Purpose of This Document

This document is an Erosion and Sediment Control Plan (ESCP) which details the measures and procedures that will be employed during the development of the specified site to minimise the risk of soil and water impacts both on- and off-site.

#### 1.2 Site Location

The site is identified as Mount Errington, at 1 Rosemead Road, Hornsby NSW (Lot A DP 327582).

# 1.3 Proposal Details

The proposed development is the conversion of the existing dwelling and grounds into a small community education facility (the proposal). Construction works required for this proposal are minimal, with the ground-disturbing activities limited to landscaping, extension of the existing driveway, and establishment of a permeable-paved carpark (Figure 1-1). Details of the works required are provided in the EIS by others.

#### 1.4 Erosion and Sediment Control Standards

This ESCP has been prepared to meet the guidelines and standards set in the NSW Blue Book (Landcom, 2004).



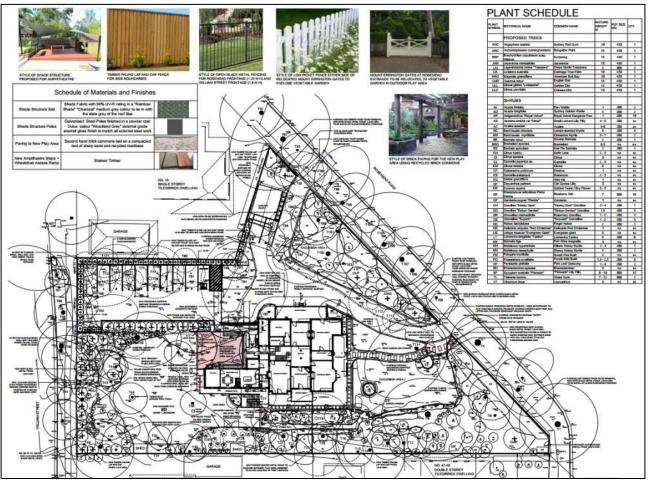


Figure 1-1: Landscaping plan for the proposal (Fiona Cole Design, 2020)

# 2 RISK ASSESSMENT

# 2.1 Identification of Potential Impacts

The following potential soil and water impacts have been identified as a result of the proposed works to undertake the proposal:

- Dust generated during ground disturbance activities and landscaping;
- Sediment tracked onto surrounding roads from vehicles;
- Erosion of sediments exposed or stockpiled onsite;
- Sediment pollution in the local stormwater system as a result of erosion.

# 2.2 Erosion and Sediment Control Requirements

The proposal does not involve ground disturbance to more than 2,500m<sup>2</sup> of land. In accordance with Landcom (2004), a Soil and Water Management Plan (SWMP) is therefore not required. A simple ESCP will suffice and no calculations are required to demonstrate the erosion hazard. This document constitutes the required ESCP.



# **3 EROSION AND SEDIMENT CONTROLS**

The erosion and sediment control measures detailed in Table 1 are to be implemented for all ground-disturbing works such as demolition, construction and landscaping. These measures are considerate of the risks identified in Section 2 of this ESCP.

Table 1: Erosion and sediment control mitigation and management measures

ID	Mitigation or management measure	Timing	Responsibility
ESC01.	All personnel will be inducted into this ESCP and will be made aware of the requirements for erosion and sediment control.	Prior to and during construction	Site manager
ESC02.	A copy of this ESCP will be retained onsite.	During construction	Site manager
ESC03.	As much as possible, ground-disturbing works and vehicle access onsite will be scheduled for dry weather.	During construction	Site manager
ESC04.	Sediment fences will be installed to the specification in Section 4.1 around the lower perimeter of all ground disturbances if rain is forecast.	During construction	Site manager
ESC05.	Stockpiles of erodible materials (e.g. soil or sand) will be covered (e.g. with tarps or plastic, pinned or held down firmly) if high winds or rain is forecast.	During construction	Site manager
ESC06.	Stockpiles will not be placed on nature strips or in road gutters. All stockpiles of landscaping materials must be within the property boundaries in a location where they are unlikely to wash or blow onto neighbouring lands.	During construction	Site manager
ESC07.	Stockpiles will be established and managed in accordance with the specification in Section 4.4.		
ESC08.	Dust-generating activities (e.g. spreading topsoil) will be monitored and fugitive dust controlled by applying water from a garden hose.	During construction	Site manager
ESC09.	Vehicle tyres will be checked prior to exiting onto public roads to ensure they are free from rocks or sediment. Excess materials will be washed or brushed off before exiting. Alternatively, install a stable exit as shown in Section 4.2.	During construction	Site manager
ESC10.	Public roads surrounding the site will be checked daily and any excess rocks or soil that have been tracked offsite will be swept up.	During construction	Site manager
ESC11.	All erosion and sediment controls will be checked at least once per week and following rainfall of 5mm or more in 24 hours. Any damaged controls will be repaired immediately.	During construction	Site manager
ESC12.	Sediment fences will not be removed until the upslope catchment is at least 70% ground-covered.	During construction	Site manager



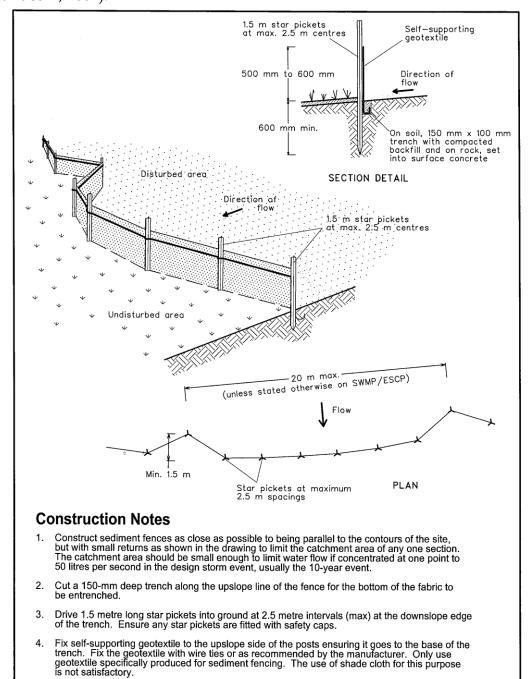
ESC13.	Weather forecasts will be monitored to determine if high winds or heavy rainfall might affect site activities.	During construction	Site manager
ESC14.	Stormwater pits in surrounding streets will be protected in accordance with the detail in Section 4.3 if there is a risk of sediment entering those pits from the proposal site.	During construction	Site manager
ESC15.	New stormwater pits onsite will be installed during dry weather and will be protected with sandbags (or similar) until the surrounding upslope catchments have achieved at least 70% ground cover (refer to Section 4.3).	During construction	Site manager
ESC16.	This ESCP will be reviewed and updated as required to ensure it remains relevant to the works being undertaken onsite.	During construction	Site manager



#### 4 STANDARD DETAILS

#### 4.1 Sediment Fences

(from Landcom, 2004).



SEDIMENT FENCE

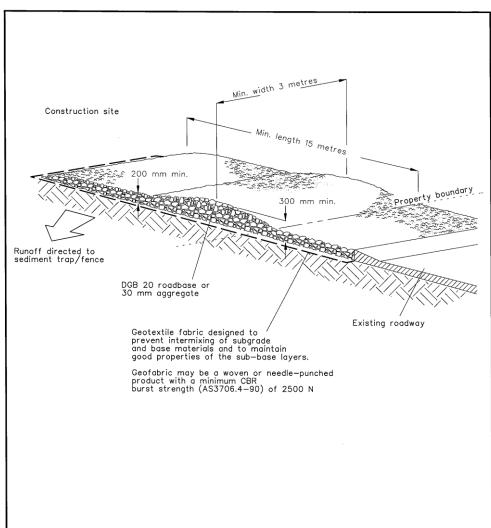
Join sections of fabric at a support post with a 150-mm overlap.

Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

SD 6-8

# 4.2 Construction Exits

(from Landcom, 2004).



# **Construction Notes**

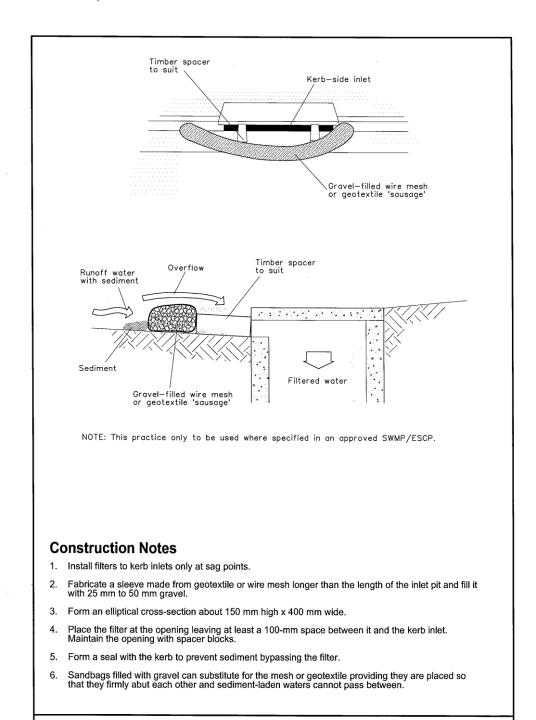
- 1. Strip the topsoil, level the site and compact the subgrade.
- 2. Cover the area with needle-punched geotextile.
- 3. Construct a 200-mm thick pad over the geotextile using road base or 30-mm aggregate.
- Ensure the structure is at least 15 metres long or to building alignment and at least 3 metres wide.
- Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence

STABILISED SITE ACCESS

**SD 6-14** 

# 4.3 Stormwater Pit Protection

(from Landcom, 2004).

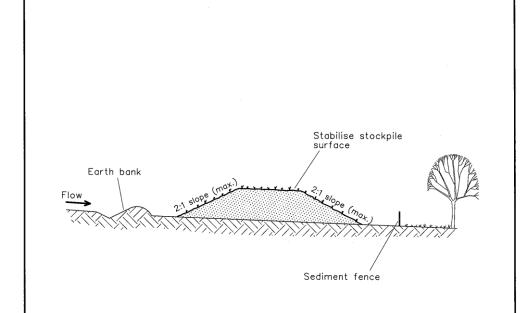


**MESH AND GRAVEL INLET FILTER** 

SD 6-11

# 4.4 Stockpiles

(from Landcom, 2004).



# **Construction Notes**

- Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
- 2. Construct on the contour as low, flat, elongated mounds.
- 3. Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
- Where they are to be in place for more than 10 days, stabilise following the approved ESCP or SWMP to reduce the C-factor to less than 0.10.
- Construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-8) 1 to 2 metres downslope.

**STOCKPILES** 

**SD 4-1** 

# **5 REFERENCES**

Landcom (2004). *Managing Urban Stormwater: Soils and Construction*. Volume 1. NSW Government, Sydney.