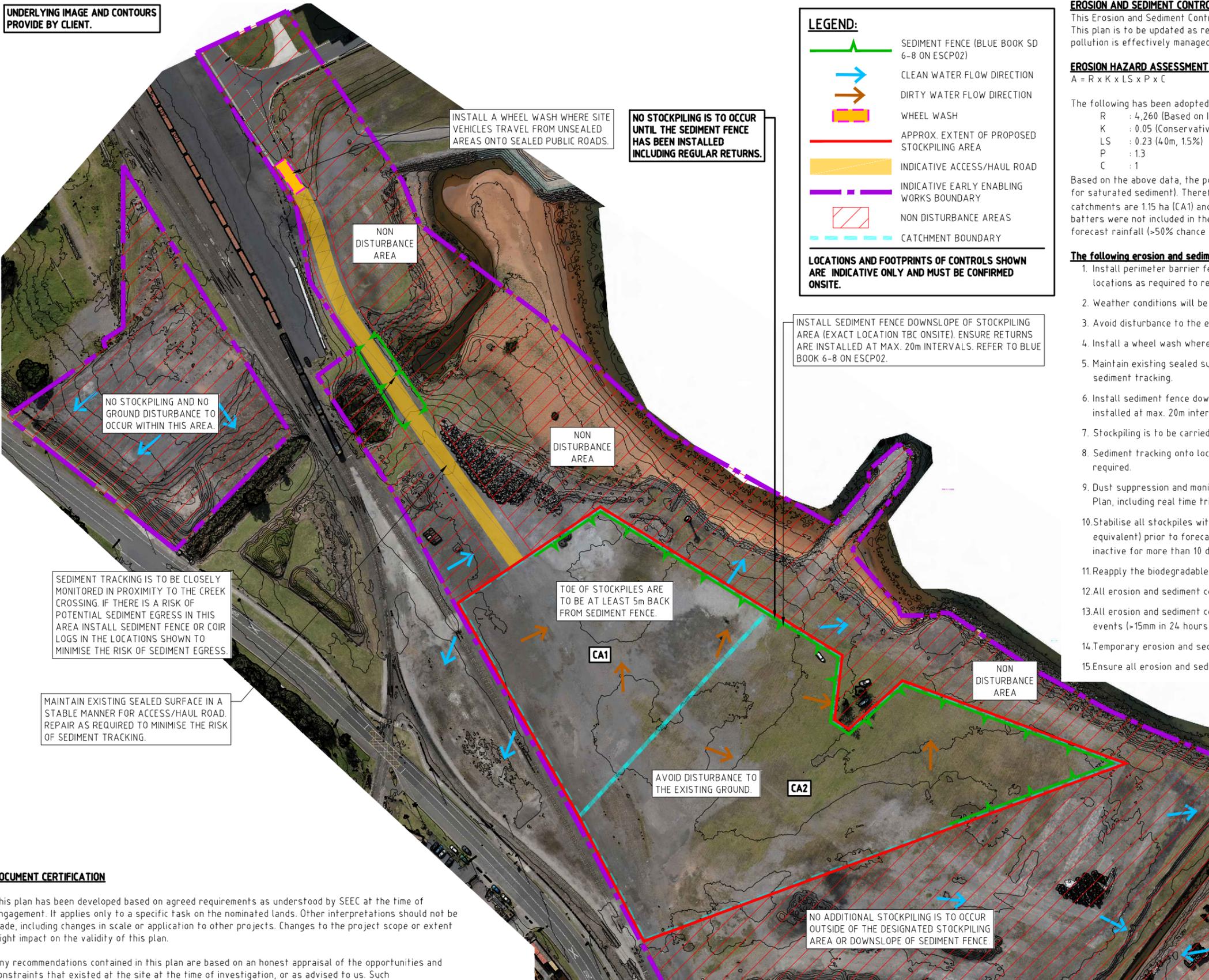


UNDERLYING IMAGE AND CONTOURS PROVIDE BY CLIENT.



LEGEND:

- SEDIMENT FENCE (BLUE BOOK SD 6-8 ON ESCP02)
- CLEAN WATER FLOW DIRECTION
- DIRTY WATER FLOW DIRECTION
- WHEEL WASH
- APPROX. EXTENT OF PROPOSED STOCKPILING AREA
- INDICATIVE ACCESS/HAUL ROAD
- INDICATIVE EARLY ENABLING WORKS BOUNDARY
- NON DISTURBANCE AREAS
- CATCHMENT BOUNDARY

LOCATIONS AND FOOTPRINTS OF CONTROLS SHOWN ARE INDICATIVE ONLY AND MUST BE CONFIRMED ONSITE.

EROSION AND SEDIMENT CONTROL DESIGN

This Erosion and Sediment Control Plan (ESCP) has been prepared in accordance with Blue Book Volume 1 (Landcom, 2004). This plan is to be updated as required to reflect significant changes to site conditions and to ensure that the risk of pollution is effectively managed.

EROSION HAZARD ASSESSMENT

$A = R \times K \times LS \times P \times C$

The following has been adopted:

- R : 4,260 (Based on IFD data)
- K : 0.05 (Conservative assumption based on disturbed terrain)
- LS : 0.23 (4.0m, 1.5%)
- P : 1.3
- C : 1

Based on the above data, the potential soil loss for this site is 65 t/ha/yr (50 m³/ha/yr, based on a bulk density of 1.3 for saturated sediment). Therefore, under Blue Book standards sediment basins are not required as the disturbed catchments are 1.15 ha (CA1) and 1.94 (CA2), with the potential soil loss being <200 t/yr (150 m³/yr). (Note stockpile batters were not included in the above assessment as they will be covered with a biodegradable soil polymer prior to forecast rainfall (>50% chance of 5mm or more in 24 hours) and reapply as required.

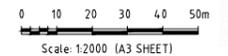
The following erosion and sediment control measures are to be implemented/maintained:

1. Install perimeter barrier fencing where practicable (or alternative measures) around the site and in any additional locations as required to restrict access and to minimise unnecessary disturbance.
2. Weather conditions will be monitored onsite and daily rainfall will be recorded.
3. Avoid disturbance to the existing ground.
4. Install a wheel wash where site vehicles travel from unsealed areas onto sealed roads.
5. Maintain existing sealed surfaces in a stable manner for access/haul road. Repair as required to minimise the risk of sediment tracking.
6. Install sediment fence downslope of proposed stockpiling area (exact location TBC onsite). Ensure returns are installed at max. 20m intervals. Refer to Blue Book Standard Drawing SD 6-8 on ESCP02.
7. Stockpiling is to be carried out in accordance with Blue Book Standard Drawing SD 4-1 on ESCP02.
8. Sediment tracking onto local roads is to be monitored regularly. If sediment tracking occurs sweep local roads as required.
9. Dust suppression and monitoring will be undertaken in accordance with the Construction Air Quality Management Plan, including real time trigger limits.
10. Stabilise all stockpiles within the proposed stockpile area with a biodegradable soil polymer (Vital Stonewall or equivalent) prior to forecast rainfall (>50% or more chance of 5mm or more rainfall in 24 hours) and/or if they are inactive for more than 10 days.
11. Reapply the biodegradable soil polymer as required to maintain at least 60% cover over all stockpiles.
12. All erosion and sediment control measures will be monitored and cleaned out or replaced as necessary.
13. All erosion and sediment control measures will be inspected weekly and before, during and after significant rain events (>15mm in 24 hours).
14. Temporary erosion and sediment control measures are to remain in place at all times during stockpiling works
15. Ensure all erosion and sediment control measures are located within the approved boundary.

DOCUMENT CERTIFICATION

This plan has been developed based on agreed requirements as understood by SEEC at the time of engagement. It applies only to a specific task on the nominated lands. Other interpretations should not be made, including changes in scale or application to other projects. Changes to the project scope or extent might impact on the validity of this plan.

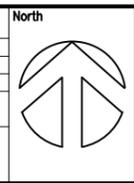
Any recommendations contained in this plan are based on an honest appraisal of the opportunities and constraints that existed at the site at the time of investigation, or as advised to us. Such recommendations are potentially subject to the limited scope and resources available. Within the confines of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



all

REV	DATE	DES.	DRN.	APP.	REVISION DETAILS
05	30/08/21	L.O.	L.O.	A.M.	FINAL ISSUE - AMENDED TO REFLECT CLIENT COMMENTS
04	20/08/21	L.O.	L.O.	A.M.	FINAL ISSUE - REDUCED WORKS BOUNDARY
03	01/07/21	L.O.	L.O.	A.M.	FINAL ISSUE - AMENDED TO REFLECT ADDITIONAL EPA COMMENTS
02	22/06/21	L.O.	L.O.	A.M.	FINAL ISSUE - AMENDED TO REFLECT EPA COMMENTS
01	11/06/21	L.O.	L.O.	A.M.	FINAL ISSUE
00	09/06/21	L.O.	L.O.	A.M.	FINAL ISSUE (DRAFT)
A	08/06/21	L.O.	L.O.	A.M.	DRAFT ISSUE - FOR CONSULTATION

DRAWING STATUS	
DESIGN BY	L.O.
DRAWN BY	L.O.
FINAL APPROVAL	A.M.
SCALE:	1:2000
(on A3 Original)	
FINAL	



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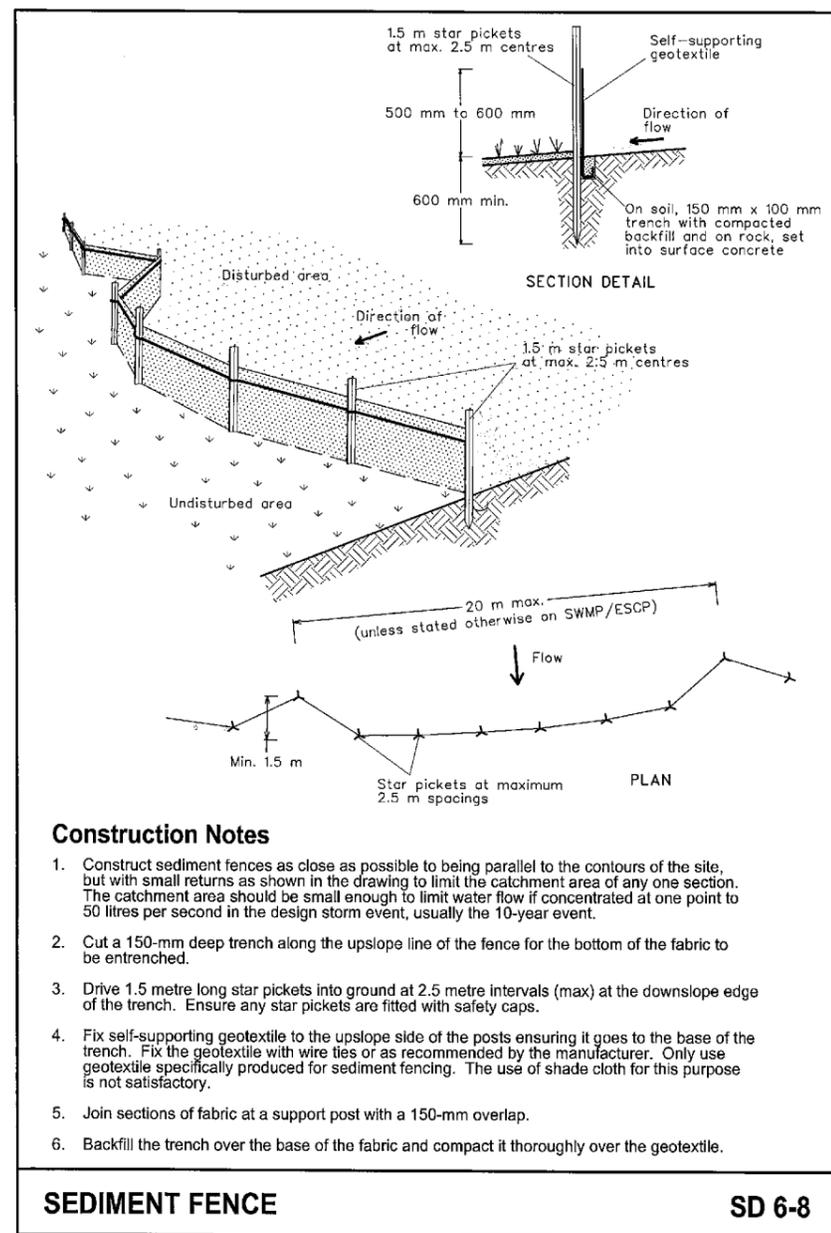
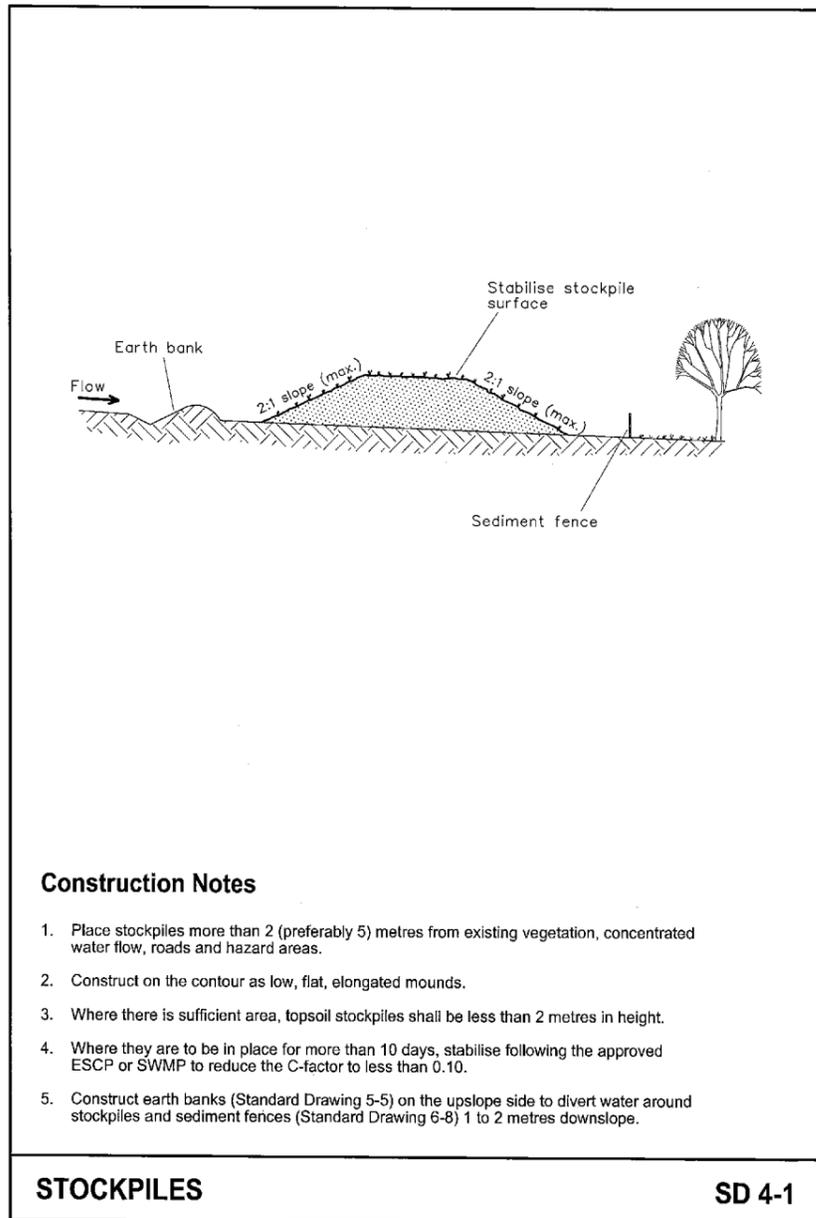


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PROJECT TITLE
OUTER HARBOUR PORT KEMBLA, NSW

DRAWING TITLE			
EROSION AND SEDIMENT CONTROL PLAN SHEET 1 OF 2			
PROJECT NO.	SUB-PR NO.	DRAWING NO.	REV
21000273	P01	ESCP01	05

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05	30/08/21	L.O.	L.O.	A.M.	FINAL ISSUE - AMENDED TO REFLECT CLIENT COMMENTS
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00	09/06/21	L.O.	L.O.	A.M.	FINAL ISSUE (DRAFT)
A	08/06/21	L.O.	L.O.	A.M.	DRAFT ISSUE - FOR CONSULTATION

DRAWING STATUS	
DESIGN BY	L.O.
DRAWN BY	L.O.
FINAL APPROVAL	A.M.
SCALE:	N.T.S.
(on A3 Original)	
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PROJECT TITLE

**OUTER HARBOUR
 PORT KEMBLA, NSW**

DRAWING TITLE			
EROSION AND SEDIMENT CONTROL BLUE BOOK STANDARD DRAWINGS DRAWINGS - SHEET 2 OF 2			
PROJECT NO.	SUB-PR NO.	DRAWING NO.	REV
21000273	P01	ESCP02	05