

CONSTRUCTION SOIL AND WATER MANAGEMENT PLAN

Moorebank Precinct East Stage 2

07 AUGUST 2020

SYDNEY INTERMODAL TERMINAL ALLIANCE MOOREBANK PRECINCT EAST – STAGE 2

Construction Soil and Water Management Plan

Author

[REDACTED]

[REDACTED]

Checker

[REDACTED]

[REDACTED]

Approver

[REDACTED]

[REDACTED]

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Author Details

Author Details	Qualifications and Experience
[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] has experience across numerous infrastructure design projects, specifically in reviewing environmental factors and impacts. Mackenzie has delivered REF's, addendum REF's, consistency assessments, constraints mapping and environmental documentation for contractors.

REVISIONS

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006	07/06/2018	Updated to address staging of Stormwater Management Plan	■	■
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008	22/10/2018	Updated to reflect RfMA 002 and issue of the Moorebank Precinct EPL (RfMA 004)	■	■
009	04/05/2019	<p>Minor updates associated with:</p> <ul style="list-style-type: none"> - RfMA 006 - RfMA 007 - RfMA 012 - RfMA 015 <p>Also updated with MPW Commonwealth Approvals relevant to Moorebank Avenue upgrade works</p>	■	■
010	31/07/2019	Updates to address DotEE comments in response to compliance with EPBC 2011/6086 (RfMA 024)	■	■
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012	25/10/2019	<p>Minor updates associated with:</p> <ul style="list-style-type: none"> • RfMA 02A – Additional construction compounds to support warehouse construction • RfMA 008 – MAUW construction compound • RfMA 012 – Additional temporary construction access points • RfMA 014 – Suitable spoil importation • RfMA 019 – Clarification of definitions for Early Works and Construction Phase A • RfMA 021 – New parking area • RfMA 024 – MPW EPBC (2011/6086) and MPE EPBC (2011/9229) approval requirements for DotEE review and approval 	■	■
013	21/11/2019	Updated to address ER comments; removal of Construction Phase A updates associated with RfMA 019 and minor updates associated with RfMA 016 – Temporary access time extension.	■	■
014	20/12/2019	Updated to address ER comments, and the approved CTAMP-B	■	■

Revision	Date	Description	Prepared by	Approved by
015	16/01/2020	Updated to address ER comments	■	■
016	03/04/2020	Minor updates to address Archile comments	■	■
017	07/08/2020	Minor updates associated with:		
		• RfMA-018 – MAUW boundary change		
		• RfMA-028 – MAUW/MADR Stockpile Area	■	■
		• SSD 7628-Mod 2 approval	■	■
		• Periodic review of management plans - Alignment of Environmental Representative approval authority to the CoC		

ACRONYMS AND DEFINITIONS

Terms	Explanation
AHD	Australian Height Datum
ANZECC	Australia New Zealand Environment and Conservation Council
ARI	Average recurrence interval
ASS	Acid Sulfate Soil
Blue Book	Managing Urban Stormwater: Soils and Construction, published by Landcom in 2004
CCoA	Commonwealth Conditions of Approvals
CEMP	Construction Environmental Management Plan
CESCP	Construction Erosion and Sediment Control Plan
CMM	Commonwealth Mitigation Measures
CMP	Contamination Management Plan
CoCs	Conditions of Consent
Contractor's CLM	Contractor's Community Liaison Manager
Contractor's CM	Contractor's Construction Manager
Contractor's EM	Contractor's Environmental Manager
Contractor's PM	Contractor's Project Manager
CDWMP	Construction Demolition and Waste Management Plan
CSMP	Construction Spoil Management Plan
CSWMP	Construction Soil and Water Management Plan
CTAMP	Construction Traffic and Access Management Plan
DJLU	Defence Joint Logistics Unit
DP&E	Department of Planning & Environment
Early Works	<p>Site preparation works, including:</p> <ul style="list-style-type: none"> (a) establishment of site access points; (b) installation of temporary site fencing; (c) remediation, where required, including unexploded ordnance (UXO), exploded ordnance (EO) and exploded ordnance waste (EOW) management; (d) survey; acquisitions; or building/ road dilapidation surveys; (e) establishment of site compounds; (f) installation of environmental mitigation measures; (g) heritage archival monitoring and recording; (h) heritage salvage; (i) clearing of non-native vegetation; (j) importation, stockpiling and placement of 60,000 m³ of spoil (k) utilities adjustment and relocation that do not present a significant risk to the environment, as determined by the Environmental Representative; and

Terms	Explanation
	(I) other activities determined by the Environmental Representative to have minimal environmental impact.
EIS	Environmental Impact Statement
ENM	Excavated natural material
Environmental Incident	A set of circumstances resulting in harm, or potential harm, to the environment. Environmental incidents include pollution incidents and environmental emergencies. Environmental incidents may arise from natural (e.g. storm, wind or bushfire) or human factors.
EO	Exploded Ordnance
EOW	Exploded Ordnance Waste
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	NSW Environment Protection Authority
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence
ER	Environmental Representative
ERSED	Erosion and sedimentation
ESC	Erosion and sediment control
EWEMP	Early Works Environmental Management Plan
EWMS	Environmental Work Method Statement
FERP	Flood Emergency Response Plan
FCMMs	Final Compilation of Mitigation Measures
FERP	Flood Emergency Response Plan
GFA	Gross floor area
ICAM	Incident Cause Analysis Method
IECA	International Erosion Control Association
IFD	Intensity Frequency Duration
IMEX	<ul style="list-style-type: none"> • Import Export Terminal. Includes the following key components: • Truck processing, holding and loading areas - entrance and exit from Moorebank Avenue • Rail loading and container storage areas – installation of four rail sidings with adjacent container storage area serviced by manual handling equipment initially and overhead gantry cranes progressively • Administration facility and associated car parking- light vehicle access from Moorebank Avenue.
IMT facility	<p>The IMT facility includes the construction of the following key components together comprising the Intermodal Terminal (IMT):</p> <ul style="list-style-type: none"> • Truck processing and loading areas. • Rail loading and container storage areas. • Administration facility and associated car parking

Terms	Explanation
	<ul style="list-style-type: none"> Rail link.
ISCA	Infrastructure Sustainability Council of Australia
MPE	Moorebank Precinct East
MPE Concept EIS	The Environmental Impact Statement prepared to support the application for approval of the MPE Concept Plan under the <i>Environmental Planning and Assessment Act 1979</i> .
MPE Concept Plan Approval	MPE Concept Approval (MP 10_0193), granted by DP&E on 29 September 2014 for the development of an intermodal terminal facility including; a rail link connecting the site to the Southern Sydney Freight Line, an intermodal terminal, warehousing and distribution facilities and a freight village.
MPE EPBC Approval	Commonwealth Approval (No. 2011/6229) granted in March 2014 under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> , for the impact of the MPE Project on listed threatened species and communities (sections 18 and 18A of the EPBC Act) and Commonwealth land (sections 26 and 27A of the EPBC Act).
MPW EPBC Approval	Commonwealth Approval (No. 2011/6086) granted under the EPBC Act on September 2016 by the Commonwealth Department of Environment and Energy for the development of the SIMTA Moorebank Intermodal Terminal Facility at Moorebank.
MPE Project	The MPE Intermodal Terminal Facility as approved under the MPE Concept Approval (MP 10_0193) and the MPE EPBC Approval (2011/6229).
MPE site	Including the former DSNDG site and the land owned by SIMTA which is subject to the MPE Concept Plan Approval (Lot 1 DP1048263). The MPE site does not include the rail corridor, which relates to the land on which the rail link is to be constructed.
MPE Stage 1 Project	MPE Stage 1 Project (SSD 14-6766) for the development of the Intermodal terminal facility at Moorebank. This reference also includes associated conditions of consent and environmental management measures which form part of the documentation for the approval.
MPE Stage 2 EIS	Moorebank Precinct East Stage 2 Proposal – Environmental Impact Statement publicly exhibited between 13 December 2016 and 24 February 2017.
MPE Stage 2 Project	As approved under SSD 7628, Stage 2 of the MPE Concept Approval (MP 10_0193) and SSD 7628-Mod 2 Approval.
MPE Stage 2 RtS	Moorebank Precinct East Stage 2 Proposal – Response to Submissions Report (July 2017), prepared in response to the submissions received regarding the MPE Stage 2 Proposal.
MPW	Moorebank Precinct West
Non-compliance	An occurrence, set of circumstances, or development that results in a non-compliance or is non-compliant with Development Consent SSD 7628 Conditions of Consent or EPBC Act Approval (EPBC 2011/6229) Conditions of Approval but is not an incident
Non-conformance	Observations or actions that are not in strict accordance with the CEMP and the aspect specific sub-plan
NTU	Nephelometric Turbidity Unit
OEH	Office of Environment and Heritage
OEMP	Operations Environmental Management Plan
Operational area / Operational footprint	Extent of operational activities for the operation of the Project

Terms	Explanation
OSD	On-site detention
PMF	Probable Maximum Flood
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Project Management Team	The Project management team would include, as a minimum the Contractor's PM, Contractor's CM, Contractor's EM and Site Supervisor. Additional parties may be included where deemed relevant.
Project Personnel	All persons listed in Section 2.2 including sub-contractors working on the Project site.
Project site / Project footprint	The subject of the MPE Stage 2 EIS, the part of the MPE site which includes all areas to be disturbed by the Project (including the operational area and construction area).
Project, the	The MPE Stage 2 Project, namely Stage 2 of the MPE Concept Approval (MP 10_0193) and SSD 7628-Modification 2 Approval. It includes the construction and operation of warehousing and distribution facilities on the MPE site and upgrades to approximately 1.5 kilometres of Moorebank Avenue.
RSoC	Revised Statement of Commitments
RtS	Response to Submissions
RUSLE	Revised Universal Soil Loss Equation
SIMTA	Sydney Intermodal Terminal Alliance
SIMTA Precinct Developer	Qube
Site fill	Includes importation, stockpiling and placement of fill to establish development finished surface levels within the MPE site and for the upgraded Moorebank Avenue.
SMP	Stormwater Management Plan
SSD	State significant development
TSS	Total Suspended Solids
UXO	Unexploded Ordnance
VENM	Virgin excavated natural material
Warehousing Compound	<p>The main construction compound of the Project. The warehousing compound will include:</p> <ul style="list-style-type: none"> • A site office(s) • Staff amenities • Car parking • Storage and laydown areas • Materials testing facilities • Materials crushing facilities • Concrete batching plant.
WSUD	Water Sensitive Urban Design
W1P	Warehouse 1 Precinct

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1 BACKGROUND

The Sydney Intermodal Terminal Alliance (SIMTA) received approval for the construction and operation of Stage 2 of the Moorebank Precinct East (MPE) Project (SSD 7628), which comprises the second stage of development under the MPE Concept Consent (MP10_0193). This was subsequently modified and approved under Modification 2 (SSD 7628-Mod 2). This Construction Soil and Water Management Plan (CWSMP) has been developed to manage soil and water impacts during the construction phase of Stage 2 of the Moorebank Precinct East (MPE) Project (hereafter 'the Project').

Within this plan, a strategy has been established to demonstrate the Construction Contractor's approach to the management of soil and water. This CSWMP addresses the relevant requirements of the Development Consent, including the Environmental Impact Statement (EIS), Response to Submissions (RtS) and Minister's Conditions of Consent (CoCs), and all applicable guidelines and standards specific to the management of soil and water during construction phases of the Project.

1.1 Introduction

The MPE site, including the Project site, is located approximately 27 kilometres (km) south-west of the Sydney Central Business District (CBD) and approximately 26 km west of Port Botany and includes the former Defence National Storage and Distribution Centre site. The MPE site is situated within the Liverpool Local Government Area (LGA), in Sydney's South West subregion, approximately 2.5 km from the Liverpool City Centre.

The MPE Project involves the development of an intermodal facility including warehouse and distribution facilities, freight village (ancillary site and operational services), stormwater, landscaping, servicing and associated works on the eastern side of Moorebank Avenue, Moorebank.

Stage 2 of the Project involves the construction and operation of warehousing and distribution facilities on the MPE site. It includes an upgrade of approximately 2.1 kilometres of Moorebank Avenue.

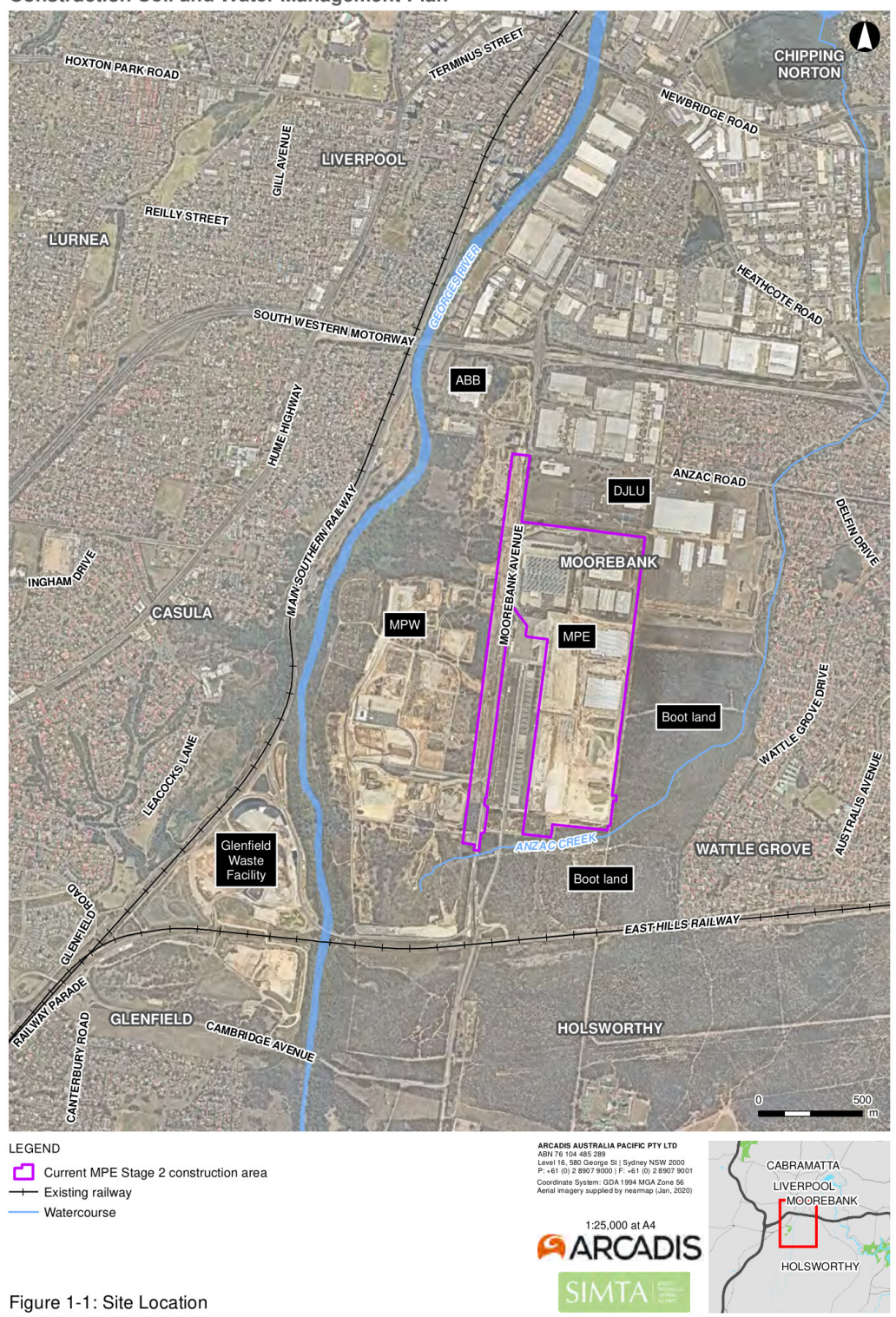
Key components of the Project include:

- Earthworks including the importation of 600,000 m³ of fill and vegetation clearing
- Importation, stockpiling and placement of up to 250,000 m³ of suitable spoil (separate to the 600,000 m³ of imported clean general fill permitted for bulk earthworks)
- Approximately 300,000 m² gross floor area (GFA) of warehousing and ancillary offices
- Warehouse fit-out
- Freight village, 8,000 m² GFA of ancillary retail, commercial and light industrial land uses
- Internal road network and hardstand across the site
- Ancillary supporting infrastructure within the site, including:
 - Stormwater, drainage and flooding infrastructure
 - Utilities relocation/installation
 - Fencing, signage, lighting, remediation and landscaping
- Moorebank Avenue upgrade including:
 - Raising by about two metres and some widening
 - Embankments and tie-ins to existing Moorebank Avenue road levels
 - Signalling and intersection works
- Intersection upgrades along Moorebank Avenue including:
 - Moorebank Avenue/MPE Stage 2 access
 - Moorebank Avenue/MPE Stage 1 northern access

- Moorebank Avenue/MPE Stage 2 central access
- Moorebank Precinct West (MPW) Southern Access/MPE Stage 2 southern emergency access.

The location of the Project site is shown in Figure 1-1.

Construction Soil and Water Management Plan



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Figure 1-1 Site Location

1.1.1 Development Consent

The MPE Stage 2 Project has been assessed by the Department of Planning and Environment (DP&E) under Part 4, Division 4.7 (previously Division 4.1 prior to 1 March 2018) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as State Significant Development (SSD). The Planning Assessment Commission granted approval for the MPE Stage 2 Project on 31 January 2018 and is subject to the CoCs (SSD 7628). The Project has subsequently been modified and approved under Modification 2 (SSD 7628-Mod 2) on 31 January 2020. The Project, including its potential impacts, consultation and proposed mitigation and management, is documented in the following suite of documents:

- State Significant Development Consent SSD 7628 and Modification 2 SSD 7628-Mod 2
- Moorebank Precinct East – Stage 2 – Environmental Impact Statement (Arcadis Australia Pacific Pty Limited, December 2016)
- Moorebank Precinct East – Stage 2 – Response to Submissions (Arcadis Australia Pacific Pty Limited, July 2017)
- Moorebank Precinct East – Stage 2 (Modification 2) – Environmental Impact Statement SSD 7628-Mod 2 (Aspect Environmental Pty Limited, July 2019)
- Moorebank Precinct East – Stage 2 (Modification 2) – Response to Submissions SSD 7628-Mod 2 (Aspect Environmental Pty Limited, September 2019)
- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Approval (No. 2011/6229) granted on March 2014
- Consolidated assessment clarification responses issued on 10 November 2017 (Arcadis 2017).

1.2 Project Delivery Phases

The Project construction period is anticipated to be approximately 24 to 36 months, which will be generally divided into three works phases, as detailed in the following sections.

The terminology for the Project phases or periods has developed from the preparation of the EIS and RtS documentation in response to the requirements of the CoCs and the need to stage the delivery of the environmental management documentation required by the CoCs. Current terminology, and the equivalent terminology from the CoCs and RtS are included in Table 1.

Table 1 Project Delivery Phase Terminology

Project Delivery Phase	CoC A18 Phase Equivalent	MPE Stage 2 RtS Works Period Equivalent
Early Works	Early Works	Works Period A: Pre-construction
	Fill importation (to 60,000 m ³)	Works Period B: Site preparation
Construction Phase A	Fill importation Construction	Works Period B: Site preparation
		Works Period E: Bulk earthworks
		Works Period F: Construction and internal fit out of warehousing
Construction Phase B	Fill importation Construction	Works Period G: Miscellaneous construction works
		Works Period C: Construction of Moorebank Avenue Diversion Road
		Works Period D: Pavement and intersection works along Moorebank Avenue

1.2.1 Early Works

Early Works is generally described as site preparatory works including utilities adjustments and relocations, clearing and stripping of topsoil (top 100 millimetre of topsoil), heritage salvage and fill importation (including virgin excavated natural material [VENM] and excavated natural material [ENM], up to 60,000 m³), establishment of site access, temporary fencing and compound establishment, asbestos and hazardous material removal and the preparation for the demolition of buildings.

The Early Works includes but is not limited to:

- Geotechnical and utilities investigation works including potholing to confirm the location of existing services, disconnection of non-critical services (with retention in place), grout filling of disconnected draining lines, and adjustment and relocation where applicable
- Clearing of non-native vegetation, stripping of topsoil and stockpiling of topsoil on site for later re-use within site landscaping
- Stabilisation of areas where topsoil has been stripped with imported clean hard fill or by other methods determined by the Environmental Representative (ER) to have minimal environmental impact
- Removal of asbestos from heating equipment and fire resistant building elements (e.g. fire doors) by a licenced asbestos removal contractor followed by clearance certificate issued by a certified occupational hygienist
- Hazardous material cleaning and decontamination in Buildings 67, 69, 81 and 83
- Heritage salvage works in Buildings 37, 75 and 80 on the Project site to recover architectural elements for adaptive re-use
- Importation, stockpiling and placement of up to 60,000 m³ (not exceeding a total of 22,000 m³ of material per day) of imported clean general fill material by truck-and-dog and / or semi-trailer
- Establishment of a site access point at the existing MPE site northern access and construction of associated access road, utilising existing paved areas with minor pavement extensions required, to provide for access and manoeuvrability of vehicles into and through the site in accordance with CoC B10
- Establishment of temporary site fencing, a site compound(s) and temporary car parking areas to support Early Works and construction of the Project
- Other activities determined by the ER to have minimal environmental impact.

Any of the activities defined in SSD Consent 7628 as 'Early Works' may be undertaken during the Early Works. All works during Early Works will be undertaken in accordance with the Early Works Environmental Management Plan (EWEMP) and required sub-plans.

Upon the commencement of construction, the Project's CEMP will supersede the EWEMP.

1.2.2 Construction Works Phase A (Excluding Moorebank Avenue Upgrade Works)

Construction Works Phase A will include all works described in Early Works in addition to bulk earthworks, drainage and utilities, construction and internal fit-out of warehousing and finishing works. All vegetation clearing, and filling will be completed within the construction boundary. Construction Works Phase A excludes Moorebank Avenue works described in Section 1.2.3.

Construction Works Phase A includes, but is not limited to:

Completion of Site Preparation Activities

- Demolition of existing structures
- Clearing of remaining vegetation
- Adjusting the building formation of the site (to final operational levels) within which the Warehousing Compound will be located
- Establishment of temporary batch plant and materials crushing plant.

Bulk Earthworks, Drainage and Utilities

- Importation, stockpiling and placement of up to a total of 600,000 m³ (including the volume imported during Early Works) of imported clean general fill for bulk earthworks
- Importation, stockpiling and placement of up to 250,000 m³ of suitable spoil (separate to the 600,000 m³ of imported clean general fill permitted for bulk earthworks)
- Installation of on-site detention (OSD) basins and drainage infrastructure within the MPE Stage 2 site
- Construction of retaining walls
- Creation of internal road formation by general earthworks (by constructing fill embankments)
- Bulk earthworks and adjusting the building formation of the Project site to final level, including the terminal hardstand
- Utilities relocation and installation
- Establishment of hardstand areas.

Construction and Internal Fit-out of Warehousing

- Foundation and floor slab installation
- Erection of framework and structural walls
- Installation of roof
- Internal fit-out of warehouses (racking and associated services).

Miscellaneous Construction and Finishing Works

- Pavement construction (internal transfer roads and perimeter road), including forming of new kerbs, gutters, medians (where required) and other structures
- Line marking, lighting and sign posting
- Installation of road furniture, including traffic signs and pavement markers
- Miscellaneous structural construction
- Finishing works, including landscaping and general site rehabilitation, where required
- Commissioning of the Project
- Decommissioning/demobilisation of the Project site, including removal of construction compound(s) and temporary construction environmental controls.

1.2.3 Construction Works Phase B (All Construction Activities)

Construction Works Phase B will include all works described in Early Works and Construction Works Phase A, in addition to the Moorebank Avenue upgrade works. Generally, the Moorebank Avenue upgrade works are described as construction of the Moorebank Avenue Diversion Road, bulk earthworks, drainage and utilities, and pavement works.

Construction Works Phase B includes, but is not limited to:

Construction of the Moorebank Avenue Diversion Road

- Stripping of topsoil within footprint of temporary diversion road
- Installation of temporary drainage
- Placement of fill and temporary road pavement (e.g. gravel)
- Construction of interface between temporary diversion road and existing Moorebank Avenue
- Installation of temporary road signage, street lighting and signalling
- Transfer of traffic onto temporary diversion road from Moorebank Avenue.

Bulk Earthworks, Drainage and Utilities

- Removal of existing pavement and stripping of topsoil within Moorebank Avenue

- Importation, stockpiling and placement of the remainder of the imported clean general fill (total of 600,000 m³) for bulk earthworks approved under the CoCs
- Importation, stockpiling and placement of up to 250,000 m³ of suitable spoil (separate to the 600,000 m³ of imported clean general fill permitted for bulk earthworks)
- Creation of a road formation by general earthworks (by constructing fill embankments)
- Utilities relocation and installation.

Pavement Works along Moorebank Avenue

- Placement of select layer of earthworks material on top of the road formation
- Placing and compacting the pavement later (concrete, or concrete and asphalt) over the select layer (consisting of a sub-base and base) and potential sealing with bitumen
- Traffic switching from diversion road onto final, upgraded Moorebank Avenue
- Removal of construction traffic management and progressive opening of the internal road and warehouse access roads to traffic
- Removal of road surface, road signage, street lighting and signalling from temporary diversion road
- Commissioning of Moorebank Avenue.

The site access, compounds (including crushing and fill sorting) and stockpiling locations are shown in Figure 1-2.

Construction Soil and Water Management Plan

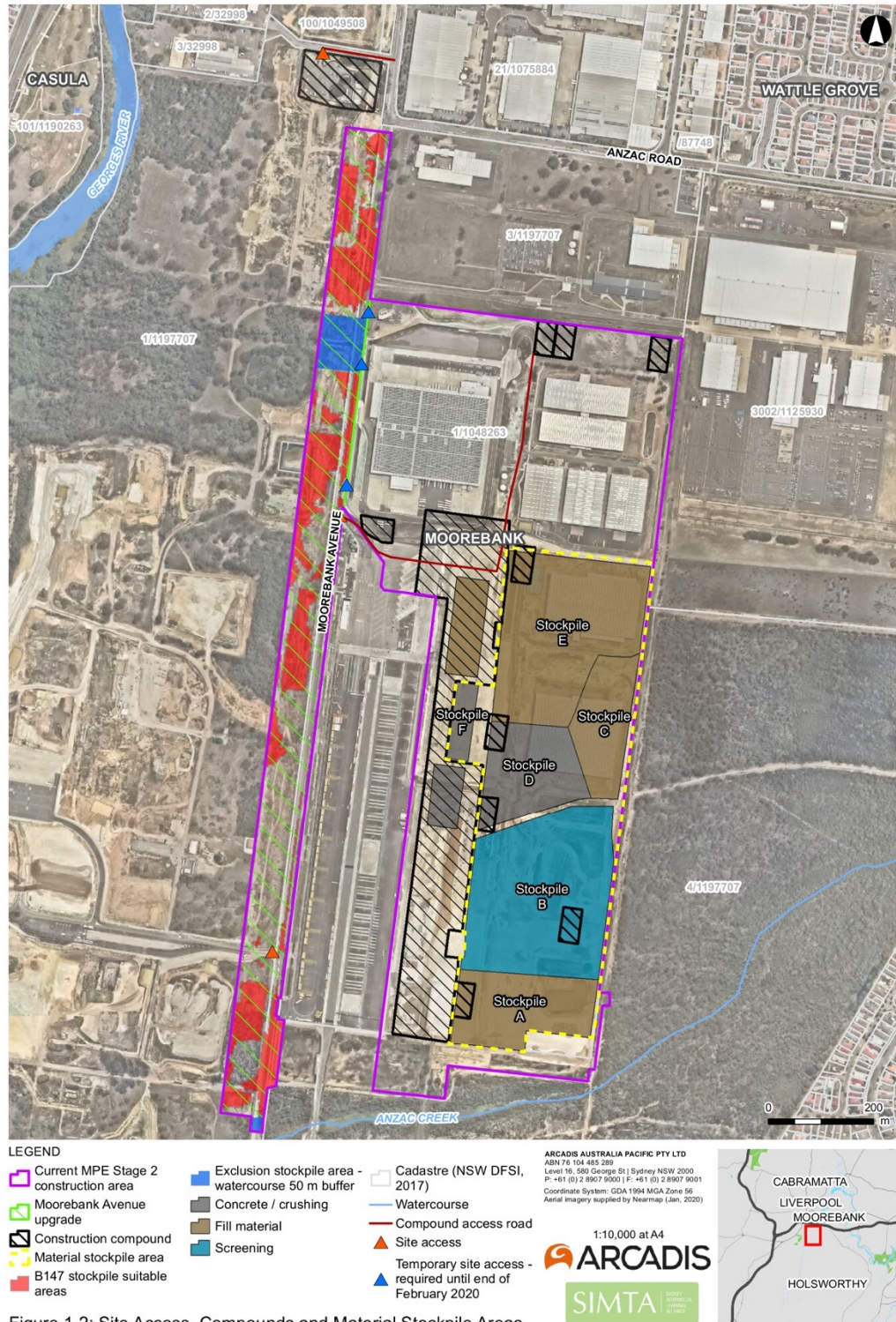


Figure 1-2 Site Access, Compounds and Stockpiling Locations

1.3 Purpose and Application

This CSWMP has been developed to address the CoCs and the final compilation of mitigation measures (FCMMs). This plan aims to demonstrate how soils, water quality and water quantity will be managed during construction of the Project. This plan provides methods to measure and reduce the impact to soils, water quality, and water quantity by the Construction Contractor during construction, including all sub-contractors. The specific requirements of the CoCs for compilation of the CSWMP, as identified in the CoCs and FCMMs are identified in the Compliance Matrices in Section 2.1.1 of this CSWMP.

The most recent, approved version of this plan will be implemented to manage the Project activities. Construction will not commence until acknowledgement has been received from the Secretary that this CSWMP has been prepared to their satisfaction. Construction will be undertaken in accordance with the most recent, approved version of this CSWMP.

1.4 Staged Submission of this Plan

Subject to the approval of the Secretary (CoC A14), the Project has elected to stage the submission of a number of strategies, plans and programs that are required by the CoCs based on the Delivery Works Phases identified in Table 2.

In accordance with CoC A15, Table 2 identifies the stage of the development to which this document applies, and the relationship between any future stage. The trigger for updating the document is also identified in Table 2. When a document is updated, the most recent version of the document will supersede the previous version(s).

Table 2 Staged Documentation and Triggers to Satisfy CoC A15

Delivery Works Phases	General Description of Works	Current Document	Trigger to Update Document
Early Works			
Early Works	Geotechnical and utilities investigations, adjustments and relocations, clearing and stripping of topsoil, heritage salvage, fill importation, establishment of site access, temporary fencing and compound establishment, and other activities determined by the ER to have minimal environmental impact	<input type="checkbox"/> Document prepared to address Early Works only	Prior to the commencement of construction works
Construction			
Construction Phase A	Early Works activities, bulk earthworks, drainage and utilities, construction and internal fit-out of warehousing and finishing works..	<input type="checkbox"/> Document prepared to address Construction Works Phase A only (does not address Moorebank Avenue upgrade works)	Prior to the commencement of Moorebank Avenue upgrade works
Construction Phase B	Construction Phase A activities, construction of the Moorebank Avenue Diversion Road, bulk earthworks, drainage and utilities and pavement works	<input checked="" type="checkbox"/> Document prepared to address all construction works (Phase A + Phase B)	No further staging expected.

1.5 Objectives and Targets

The objectives and targets set out for the Project for the management of soils and water during construction are outlined in Table 3.

Table 3 Objectives and Targets

Objective	Target	Timeframe	Accountability	Source Reference
Minimised impacts to offsite water quality	<ul style="list-style-type: none"> Ensure discharges are in accordance with appropriate discharge requirements (pH 6.5-8.5, TSS 50 mg/L, turbidity 25 NTU and no visible oil and grease). 	Duration of construction	Contractor's EM	Moorebank Precinct EPL (No. 21054)
Minimal change to flow volumes and flow distribution during Project construction	<ul style="list-style-type: none"> The existing site catchment and sub-catchment boundaries would be maintained as far as practicable To the extent practicable, site imperviousness and grades should be limited to the extent of existing imperviousness and grades under existing development conditions. 	Duration of construction	Contractor's CM	FCMM 5B
Optimised management and beneficial re-use of topsoil	<ul style="list-style-type: none"> Topsoil stockpiles to be maintained no higher than 2 m 95% of all topsoil (by volume) retains its productivity and is beneficially re-used on or nearby to the Project or asset. 	Duration of construction	Contractor's CM	Blue Book ISCA Target
Establish and maintain awareness of the importance of protecting environmental values (EVs) or water quality objectives (WQOs) associated with the Project site	<ul style="list-style-type: none"> All Project and workforce personnel to complete an environmental induction, which will include information on the importance of minimising impacts on water quality and effectively managing stormwater 	Duration of construction	Contractor's CM	MPE Stage 2 CEMP MPW Stage 1 EIS
Avoid the exceedance of water quality goals/criteria during construction	<ul style="list-style-type: none"> Zero incidents of water quality goals/criteria being exceeded during construction 	Duration of construction	Contractor's CM	Moorebank Precinct EPL (No. 21054) MPW Stage 1 EIS
Avoid the exceedance of stormwater management goals/criteria	<ul style="list-style-type: none"> Zero incidents of stormwater management goals/criteria being exceeded during construction 	Duration of construction	Contractor's CM	Moorebank Precinct EPL (No. 21054) MPW Stage 1 EIS

Objective	Target	Timeframe	Accountability	Source Reference
during construction				
Construction activities do not adversely affect flood water flows and do not exacerbate flooding	<ul style="list-style-type: none"> Zero incidents whereby construction activities adversely affect flood water flows and exacerbate flooding 	Duration of construction	Contractor's CM	MPW Stage 1 EIS

2 ENVIRONMENTAL MANAGEMENT

2.1 Legal and Other Requirements

Table 4 below details the legislation and planning instruments considered during development of this sub-plan.

Table 4 Legislation, Planning Instruments and Guidelines

Legislation	Description	Relevance to this CSWMP
<i>Environmental Planning and Assessment Act 1979</i>	This Act establishes a system of environmental planning and assessment of development Projects for the State.	The CoCs and obligations issued under Part 4 of the EP&A Act are addressed in this plan.
<i>Protection of the Environment Operations Act 1997</i>	The objectives of this Act relate to the protection of the environment through pollution prevention and cleaner production, among others.	<p>Relevant sections of the Act, including duties to report pollution incidents and disposal regulations have been incorporated into this plan and incident response procedures.</p> <p>A key legislative requirement applicable to construction soil and water management is Section 120 of the <i>Protection of the Environment Operations Act 1997</i> which relates to pollution of waters and the need to implement all reasonable and feasible measures to minimise the risk of pollution of waters.</p> <p>Part 5.7 of the Act requires that a pollution incident causing or threatening material harm to the environment be notified to EPA and other relevant authorities as outlined in the CEMP. Material harm constitutes actual or potential harm to the health or safety of humans and/or ecosystems that is not trivial, or results in actual or potential loss or property damage of amounts in excess of \$10,000 in total.</p>
<i>Contaminated Land Management Act 1979</i>	The general object of this Act is to establish a process for investigating and (where appropriate) remediating land that the EPA considers to be contaminated significantly enough to require regulation under Division 2 of Part 3, and to ensure that contaminated land is managed with regard to the principles of ecologically sustainable development.	<p>Contamination on site must be assessed and managed in accordance with this act.</p> <p>Division 2, Part 3, Section 11-17 of this Act details requirements for the Management of Contaminated Land.</p>
<i>Water Management Act 2000</i>	The objects of this Act are to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations.	Although it is not envisaged that any construction activities would be undertaken on waterfront land, any waterfront activities that do occur would be conducted generally in accordance with the NSW Office of Water's Guidelines for Controlled Activities.
<i>Fisheries Management Act 1994</i>	The objectives of this Act seek to conserve fishery resources, fish stocks and key fish habitats.	This CSWMP has been prepared to maintain existing flow regimes surrounding the site. No impacts to fisheries are envisaged as a result of Project construction.

Legislation	Description	Relevance to this CSWMP
<i>Dangerous Goods Regulation (Road and Rail Transport) 2014</i>	The main objects of this Regulation are to give effect to the standards, requirements and procedures of the Code so far as they apply to the transport of dangerous goods by land transport, and to promote consistency between the standards, requirements and procedures applying to the transport of dangerous goods by land transport and other modes of transport.	Provisions relating to the storage and transport of dangerous good, such as fuelling procedures and fuel storage, are incorporated into this plan.
<i>Commonwealth Environmental Protection and Biodiversity Conservation Act 1999</i>	The objectives of this Act seek to promote environmental protection, ecologically sustainable development, biodiversity conservation and the promotion of heritage, among others.	Requirements under EPBC Approval (No. 2011/6086) have been considered during the preparation of this CSWMP.
<i>Water Act 1912</i>	The objects of this Act govern the issue of water licences within all areas not specified by an approved 'water sharing plan'.	Provisions relating to the dewatering of groundwater are incorporated into this plan.

Additional guidelines and standards relating to the management of soil, stormwater and flooding include:

- Managing Urban Stormwater – Soils and Construction Volume 1, 4th Edition (Landcom 2004)
- Managing Urban Stormwater: Soils and Construction – Installation of Services, Volume 2A (OEH 2008)
- Managing Urban Stormwater: Soils and Construction – Main Road Construction, Volume 2D (OEH 2008)
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000)
- Guideline for the Preparation of Environmental Management Plans (Dept. of Infrastructure Planning and Natural Resources, 2004)
- Australian Rainfall and Runoff – Volume 1 (2001), Engineers Australia
- AS 1940-2004 The Storage and Handling of Flammable and Combustible Liquids
- Australian Dangerous Goods Code Edition 7.4
- Hazardous and Offensive Development Guidelines Application Guidelines Applying SEPP 33 (January 2011).

2.1.1 Compliance Matrices

2.1.1.1 State Approvals

The Project is being delivered under Part 4, Division 4.7 (previously Division 4.1 prior to 1 March 2018) of the EP&A Act. The CoCs include requirements to be addressed in this plan and delivered during the Project. These requirements and how they are addressed along with division of responsibilities is provided in Table 5.

Table 5 Conditions of Consent (CoC)

CoC	Requirement	Document Reference	How Addressed
A1	In addition to meeting the specific performance measures and criteria established under this consent all reasonable measures must be implemented to prevent, and if prevention is not reasonable, minimise, any harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.	Section 3.4 Section 4.1	Section 3.4 of this Construction Soil and Water Management Plan (CSWMP) identifies the management measures to be implemented to prevent and minimise environmental harm. Section 4.1 sets out the processes for monitoring and review of the effectiveness of these measures. Opportunities to further minimise environmental harm would be identified through the ongoing evaluation of environmental management performance and effectiveness of this plan.
A2	The development may only be carried out: (a) in compliance with the conditions of this consent; (b) in accordance with all written directions of the Secretary in relation to this consent; (c) in accordance with the EIS, Submissions Report, Consolidated assessment clarification responses, and updated Biodiversity Assessment Report; (d) in accordance with the amended Development Layout Plans and Design Plans, amended WSUD plans and amended architectural plans to be submitted for the Secretary's approval as part of this consent; and (e) in accordance with the management and mitigation measures at APPENDIX B of this consent; and (f) in accordance with modification application SSD-7628 and supporting documentation.	This plan	This CSWMP has been developed to comply with the CoCs, amended development layout and management and mitigation measures outlined in Appendix B of the CoCs. Refer to the following sections that ensure the Project and this plan will be carried out in accordance with prescribed documentation: (a) Section 2.1.1 and Table 5 demonstrate how the Project will comply with the CoCs. (b) N/A (c) Section 2.1.1 demonstrates how the Project will be carried out in accordance with the EIS, consolidated assessment clarification responses and updated Biodiversity Assessment Report (d) N/A (e) Section 2.1.1 and Table 65 demonstrates how this plan has been developed in accordance with management and mitigation measures outlined in Appendix B of the CoCs.
A6	The total volume of spoil to be imported, including fill required to raise Moorebank Avenue and spoil	Section 1.2.1 Section 1.2.3	The total volume of spoil to be imported, including fill required to raise Moorebank Avenue and

CoC	Requirement	Document Reference	How Addressed
	imported during early works must not exceed 600,000 m ³ .	Construction Spoil Management Plan (CSMP) Appendix D – Fill Importation Management Protocol	Early Works will not exceed 600,000 m ³ . An additional 250,000 m ³ of suitable spoil that is separate to the 600,000 m ³ of general fill will be imported. Total volumes of spoil will be tracked via the Imported Spoil Tracking Register (refer to CSMP) and the Fill Importation Management Protocol (Appendix D) to operate within daily limits.
A7	No works are permitted within the Defence Joint Logistics Unit site under this approval.	Noted	No works are required on the Defence Joint Logistics Unit (DJLU) site. Section 3.2.1, Table 17, SW1
A15	If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program.	Section 1.4	This CSWMP outlines the proposed staged delivery of this plan. The CSWMP supersedes the Early Works Soil and Water Management Plan (EWSWMP). No further staging of this document is expected.
A20	All licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits, approvals and consents.	CEMP - Section 2.5.2 Section 2.1	All applicable licences, permits and approvals will be obtained as required. Approvals, permits and licences required for the Project are discussed in the CEMP in Section 2.5.2. An Environmental Protection Licence (EPL) (No. 21054) was issued by the EPA on 4 June 2018 (variation issued on 18 April 2019). The licence applies to the Moorebank Precinct (excluding the MPE Stage 1 Rail Access Land Package which has a separate EPL licence, No. 20966) and authorises > 100,000 – 500,000 tonnes crushing, grinding or separating processing capacity per annum and > 500,000 – 2,000,000 tonnes extraction, processing or storage capacity per annum. The licence applies to all other activities carried on at the premises, including road construction, bulk earthworks 'cut and fill' and importing fill.

CoC	Requirement	Document Reference	How Addressed
A32	<p>All plant and equipment used at the site or to monitor the performance of the development must be:</p> <p>(a) maintained in a proper and efficient condition; and</p> <p>(b) operated in a proper and efficient manner.</p>	Section 3.4	<p>a) Management measure SW10 in Table 17 indicates that plant and equipment will be maintained in accordance with manufacturer's requirements.</p> <p>b) All plant and equipment used on site will be operated in a proper and efficient manner per SIMTA Standard Operating Procedures.</p>
B1	<p>The Applicant must:</p> <p>(a) prepare each plan, program and other documents in consultation with the specified stakeholders;</p>	N/A	No consultation requirements are specified for the CSWMP.
	<p>(b) not commence each phase of the project until the plans, programs and other documents required under this consent are approved by or, where not required to be approved, submitted to the Secretary specified within the timeframes; and</p>	Section 1.3	Section 1.3 confirms that construction will not commence until the CSWMP has been submitted and is to the satisfaction of the Secretary.
	<p>(c) implement the most recent version of the required plans and programs approved by the Secretary for the duration of the development</p>	Section 1.3	Section 1.3 confirms that the most recent version of the CSWMP will be implemented for the duration of construction.
B32	<p>A Site Specific Earthworks Specification must be prepared by a suitably qualified and experienced person(s) in accordance with the Geotechnical Interpretative report, dated 11 November 2016.</p>	Site Specific Earthworks Specification	A Site Specific Earthworks Specification has been prepared separately to address the requirements of these conditions.
B34	<p>Prior to early works, fill importation or any other surface disturbance, the Applicant must prepare a Soil and Water Management Plan (SWMP) to the satisfaction of the Secretary. The plan must form part of the CEMP required by condition C1 and must include:</p> <p>(a) measures to verify the properties of fill imported to the site (see condition (b));</p>	<p>This plan</p> <p>Appendix D - Fill Importation Management Protocol</p>	<p>This CSWMP has been developed to meet the requirements of the CoCs.</p> <p>Measures to verify the properties of fill include: at source assessment, on site certification and visual checks of trucks, and assurance testing. Refer also to the Fill Importation Management Protocol in Appendix D.</p>
	<p>(b) plans showing limits of clearing, filling and other earthworks and vegetation to be retained and protected;</p>	Section 1.2	Figure 1-1 and Figure 1-2 limits of fill and clearing. Refer to ECMS in CEMP for detail on retained vegetation. All clearing and fill will be completed with the construction boundary. Refer to Section 1.2.

CoC	Requirement	Document Reference	How Addressed
	(c) plans showing temporary access points and haul roads within the site for fill stockpiling and placement;	Section 1.2	Figure 1-1 and Figure 1-2 have been prepared and will be updated as site conditions change. Refer to Section 1.2.
	(d) plans showing the location of stockpiled fill and other materials and storage areas (see condition (c));	Section 1.2	Figure 1-1 and Figure 1-2 have been prepared and will be updated where necessary to address this condition. Refer to Section 1.2.
	(e) an Erosion and Sedimentation Control Plan (see condition B40);	Appendix A - CЕСCP	A Construction Erosion and Sediment Control Plan (CESCP) (Appendix A) has been prepared to address the specific requirements of this condition.
	(f) measures to minimise dust, erosion and prevent migration of soil off site and migration into constructed and natural drainage lines (see condition B39);	Section 3.4 Construction Air Quality Management Plan (CAQMP)	Section 3.4 includes management measures to minimise dust, erosion and offsite migration of sediment. Further detail on dust management measures is provided in the CAQMP.
	(g) details on design and maintenance of temporary stormwater drainage infrastructure including sediment basins and temporary diversion channels around temporary work obstructions to allow low and normal flows to safely bypass the work areas and to separate clean and dirty water flows (see condition B40);	Section 3.4 Appendix A – CЕСCP particularly Table 8 – Dewatering Procedure	A CESCP (Appendix A) has been prepared to address the specific requirements of this condition. Refer specifically to Table 8 in the EWESCP – Dewatering Procedure. Erosion and sediment control management measures are also detailed in Table 17.
	(h) details of existing stormwater infrastructure to be retained, including upgrades to meet design criteria, and design and maintenance of proposed new infrastructure (see condition B40);	Section 3.1	Details of existing stormwater infrastructure are included in Section 3.1 and shown in Figure 3-4.
	(i) evidence that legal agreement has been obtained: (i) to discharge stormwater through adjacent sites; (ii) for any necessary upgrade works to be constructed; (iii) for undertaking maintenance activities; and (iv) use of OSD basins on other sites, such as the MPW site, for this development, and;	Section 3.1.1 Appendix C - Memorandum – CoC B34(I)	Refer to Appendix C – Memorandum – CoC B34(I) for evidence that the legal agreements have been obtained.

CoC	Requirement	Document Reference	How Addressed
	(v) evidence that an easement has been obtained or is currently in place to discharge and detain water through adjacent sites;		
	(j) evidence that a drainage easement is in place to discharge stormwater through the MPW site, and to provide OSD basins within the MPW site, for this development, and that drainage infrastructure within the MPW site to the Georges River has been repaired or upgraded to the satisfaction of the Secretary prior to completion of construction of the temporary MPE Stage 2 sediment basins.	Section 3.2.1.1 Section 3.4.5, Table 17, SW39 and SW40 SMP – W1P	A dilapidation survey will be undertaken of the channel on the MPW site and works to repair the damaged drop structure will be undertaken. Works may include relining of the concrete channel and repair of the drop structure and inclusion of a rainwater garden (bioretention) as described in the Stormwater Management Plan – Warehouse 1 Precinct, for OSD9.
	(k) confirmation that the stormwater drainage systems in adjacent sites are designed, or can be upgraded to accept flows from the MPE site, including provision of scour protection at discharge points;	Section 3.2.1	Stormwater infrastructure on the adjacent DJLU has recently been upgraded and has been designed to accommodate flows from the MPE site.
	(l) demonstrate no impact on Anzac Creek flood levels or flood extents due to filling of the MPE site;	Section 3.2.1.3 SMP – W1P Section 3	<p>Construction site runoff would be temporarily detained in sediment basins (refer Appendix A – CЕСP) so as to mitigate impacts on Anzac Creek flood levels and extents during construction.</p> <p>Following construction, and the placement of fill, impacts on Anzac Creek flood levels and extents are expected to be limited to events larger than the 100-year Annual Recurrence Interval (ARI) and would be consistent with the findings of the MPE Stage 2 EIS.</p> <p>Section 3 of the SMP – W1P further details flood studies and impacts associated with the Project and details that the DRAINS and TUFLOW analysis undertaken for MPE Stage 2 as part of the EIS and RtS indicated that the proposed drainage systems and OSDs would provide adequate system capacities and mitigate potential adverse flood impacts that may otherwise result from the Project.</p>

CoC	Requirement	Document Reference	How Addressed
	(m) demonstrate no change to stormwater flows directly entering proposed biodiversity offset areas;	Section 3.2.1	Construction site runoff would be temporarily detained in sediment basins to maintain existing condition flow regimes and distributions leaving the construction area.
	(n) demonstrate no deterioration in the quality of stormwater discharged from the site into proposed biodiversity offset areas; and	Section 3.2.1 Section 3.4	Sediment basins have been sized and located to ensure sediment concentrations in site runoff are within acceptable limits. Stormwater leaving the MPE site needs to meet the requirements set out and explained in Section 3.4.
	(o) demonstrate that stormwater leaving the site meets the design water flow and water quality criteria (see condition B44 water quality monitoring).	Section 3.1.1 Section 3.4, Table 16, Item SW52 and SW53 Section 4.1	CoC B44 relates to an operational stormwater monitoring requirement. Stormwater leaving the MPE site will meet the requirements set out and is explained in Section 3.4. Appropriate construction discharge limits have been adopted and are included in Table 16 (SW52). Records to be maintained (and assessed in the Stormwater Monitoring Program required in CoC B43 and B44) are addressed in Table 16 (SW53). A Baseline Monitoring Programme has been developed in consultation with DPI and OEH, results of which will be used to inform the Baseline Monitoring Strategy and Stormwater Monitoring Programme. Monitoring requirements are summarised in Section 4.1.
B35	The Applicant must ensure that only VENM or ENM, or other material approved in writing by EPA is brought onto the site.	CSMP	Only VENM, ENM or other material approved in writing by the EPA will be brought onto the Project site. All imported spoil entering the Project site will be accompanied by a waste classification form. QA/QC will be undertaken to ensure imported spoil meets the

CoC	Requirement	Document Reference	How Addressed
			appropriate standards outlined in the CSMP.
B36	<p>Prior to commencement of importation of spoil, the Applicant must prepare a Spoil Management Plan to the satisfaction of the Secretary. The Spoil Management Plan must incorporate detailed information on the handling and transport of spoil, including stockpile management. The Spoil Management Plan must be approved by the NSW EPA Accredited Site Auditor prior to submission to the Secretary to ensure that imported material will be assessed including with regard to the waste classification and site suitability. The Spoil Management Plan is to be prepared separate to, but consistent with the CEMP required by conditions C1 and must:</p> <p>(a) be prepared by a suitably qualified and experienced person(s);</p>	CSMP	<p>The CSMP has been prepared to manage the importation of spoil for the Project. The plan has been submitted for the approval of a NSW EPA Accredited Site Auditor prior to submission to the Secretary. Approval of this plan by the Site Auditor was received 1 March 2018 (Ref: IA 0301-1613-4_07).</p> <p>The Contamination Management Plan (CMP) details the management of contaminated spoil identified on site. No contaminated spoil will knowingly be imported to site.</p>
	<p>(b) include:</p> <p>(i) a protocol for recording the volume, type and source of fill imported to site and vehicle registrations on a daily basis;</p> <p>(ii) quality assurance and quality control measures to ensure compliance with condition B35;</p> <p>(iii) a protocol for dealing with unexpected finds including material contamination; and</p> <p>(iv) independent auditing by a suitably qualified and experienced specialist.</p>	CSMP	A CSMP has been prepared separately to address the requirements of these conditions.
	<p>(c) be consistent with Volume 1 of Managing Urban Stormwater: Soils and Construction ('the Blue Book') (Landcom 2004) and include:</p> <p>(i) Details on and the location of fill sorting, crushing and stockpiling;</p> <p>(ii) Plans and details on the progressive formation of stockpiles, placement and stabilisation of placed fill;</p> <p>(iii) Stockpiles not to exceed 10 m in height with stockpiles over 4 m in height to be benched, with maximum of 1V:3H slopes;</p> <p>(iv) Monitoring of stockpile moisture content and stockpile watering;</p> <p>(v) Stabilisation of stockpiles if not worked on for more than 10 days; and</p> <p>(vi) Stabilisation of placed fill if construction does not commence within 10 days.</p>	CSMP	A CSMP has been prepared separately to address the requirements of this conditions.
B37	The handling of spoil during construction of the development is to be conducted in accordance with the Spoil Management Plan	CSMP	A CSMP has been prepared separately to include the handling of spoil.
B38	Permanent fill batters to adjacent lands to be a maximum of 1V:4H and details to be provided on methods of slope stabilisation.	<p>SMP – W1P (Section 5.3.1)</p> <p>SMP – Remainder of the Site</p>	This condition is detailed in the SMP – W1P Section 5.3.1 and will be further detailed in the SMP – Remainder of the Site

CoC	Requirement	Document Reference	How Addressed
B39	<p>Prior to commencement of Early Works and fill importation the Erosion and Sediment Control Plan required as part of the Soil and Water Management Plan must:</p> <p>(a) be prepared by a suitably qualified person;</p>	Appendix A – CЕСP	The CЕСP (Appendix A) has been prepared to address the requirements of this condition. The plan has been prepared by a suitably qualified person.
	<p>(b) be prepared in accordance with Volume 1 of Managing Urban Stormwater: Soils and Construction ('the Blue Book') (Landcom 2004), Managing Urban Stormwater: Soils and Construction – Installation of Services, Volume 2A (OEH 2008) and Managing Urban Stormwater: Soils and Construction – Main Road Construction, Volume 2D (OEH 2008). The plan must consider likely stages of the works and provide for appropriate control of sediment and erosion for each stage. The plan must show:</p> <ul style="list-style-type: none"> (i) location and extent of all necessary sediment and erosion control measures for the site; (ii) catchment plan; (iii) sediment basin(s) locations including details showing how runoff from the entire site will be directed to the sediment basin(s); (iv) all relevant details and calculations of the sediment basins including sizes, depths, flocculation, outlet design, all relevant sections, pump out systems, and depths; (v) all details of basement and other excavation pump out and dewatering treatment systems including flocculation and any proposed discharge from the site from dewatering and pump out systems; (vi) identification and management of any stormwater run-on to the site from adjacent sites; (vii) location of any temporary stockpiles (soil, spoil, topsoil or otherwise) and accompanying sediment and erosion control measures; (viii) location and details of all vehicle wash down bays and associated erosion and sediment control measures such as earthen bunds; and (ix) a daily and weekly site inspection checklist consistent with IECA Best Practice Erosion and Sediment Control documents. 	Appendix A – CЕСP	The CЕСP (Appendix A) has been prepared in accordance with relevant stormwater guidelines and provides details on the requirements of this condition.
	<p>(c) be implemented prior to commencement of Early Works, fill importation and construction (and any substages of these phases) and be updated as relevant to changing Early Works; fill importation,</p>	Appendix A - CЕСP	The CЕСP (Appendix A) has been prepared and included in this plan.

CoC	Requirement	Document Reference	How Addressed
	stockpiling and placement, and construction activities.		
B40	Prior to commencement of early works and fill importation, an amended Stormwater Management Plan must be submitted and approved by the Secretary. The plans must be prepared by a suitably qualified person, and independently reviewed, to ensure it meets the following criteria for:	This plan Appendix A - CЕСP	This plan and the CЕСCP have been prepared by suitably qualified persons and reviewed by the Environmental Representative. The person preparing the written plans and drawings is identified on the cover page and Current Issue Signatures section in the CЕСCP (Appendix A -Primary ESC Drawings).
	(a) Drainage		
	(i) convey flows from low order events (up to and including the 10% AEP event from the main part of the site within the formal drainage system, with flows from rarer events (up to the 1% AEP event) conveyed in controlled overland flow paths;	Appendix A - CЕСCP Primary ESC Drawings (Appendix A in CЕСCP)	This condition is for the operational phase of the Project and is addressed in the Stormwater Management Plan. Low flow and high flow channel designs for conveyance of construction water will be in accordance with the Blue Book. Low flow earth banks and associated check dams have been located to divert water to sediment basins. Low flow banks will be constructed in accordance with the Blue Book Standard Drawing (SD) 5-5 and high flow channels will be constructed in accordance with SD 5-6.
	(ii) show the location and width of controlled overland flow paths; and	Primary ESC Drawings (Appendix A in CЕСCP)	Refer to the Primary ESC Drawings (Appendix A in the CЕСCP) for the location and width of controlled overland flow paths.
	(iii) provide levels to AHD confirming building floor levels are a minimum of 150 mm above the maximum design flow path levels	SMP – W1P Section 5.3.6 SMP – Remainder of the Site	This condition is for the operational phase of the Project only and is addressed in the SMP – W1P.
	(b) Water Sensitive Urban Design		
	(i) incorporate water sensitive urban design principles, be generally in accordance with relevant Council policies, plans and specifications	Section 3.4.5, Table 17, SW39 SMP – W1P Section 6	Table 17 SW39 details that the Progressive ESC drawings will include provision for Water Sensitive Urban Design (WSUD) once construction works have progressed to allow for a
	(ii) ensure that adequate overland flow paths have been provided in the event of stormwater system	SMP – Remainder of the Site	

CoC	Requirement	Document Reference	How Addressed
	<p>blockages and flows in excess of the 1% ARI rainfall event;</p> <p>(iii) ensure on site detention basins are visually unobtrusive and ensure public safety;</p> <p>(iv) ensure rainwater harvesting is provided for each warehouse;</p> <p>(v) ensure adequate site area has been provided for stormwater treatment;</p> <p>(vi) ensure design of stormwater treatment systems minimises the risk of failure; and</p> <p>(vii) develop concept options for how 20% of the average annual volume of stormwater from the site can be reused via rainwater capture and reuse for activities including but not limited to:</p> <ul style="list-style-type: none"> • irrigation, • all internal non-potable uses, • washdown, • cooling towers, • heating, ventilation, and air conditioning, and • ground source heat exchange. <p>The Applicant is to brief the Department on how these initiatives will be implemented prior to the completion of the Stormwater Management Plan.</p>		<p>minimum of 80% upstream groundcover.</p> <p>Full details of WSUD elements are included within the SMP – W1P Section 6 and within the SMP – Remainder of the Site.</p>
	(c) Water Quantity		
	<p>(i) on site detention is to be provided to attenuate peak flows from the development such that both the:</p> <ul style="list-style-type: none"> • 1 in 1 year ARI event post development peak discharge rate is equivalent to the pre-development (un-developed catchment) 1 in 1 year ARI event • 1 in 100 year ARI event post development peak discharge rate is equivalent to the pre-development (un-developed catchment) 1 in 100 year ARI event. 	<p>SMP- W1P Section 5.3.1 and within the SMP – Remainder of the Site</p>	<p>Design, sizing and locations of the OSD basins is discussed within the SMP- W1P Section 5.3.1 and within the SMP – Remainder of the Site</p> <p>Sediment basins are proposed to manage stormwater flows during the construction phase.</p> <p>Sediment basins have been designed and located in accordance with the Blue Book, as described in the CЕСCP and the Primary ESC Drawings (Appendix A of the CЕСCP).</p>
	<p>(ii) no new drainage infrastructure work within the Defence Joint Logistics Unit (DJLU) site</p>	<p>Section 3.1.1</p>	<p>No new drainage infrastructure work will occur within the DJLU site as addressed in Section 3.1.1.</p>
	<p>(iii) all on site detention basins to have maximum batter slopes of 1V:4H or, for works immediately</p>	<p>SMP- W1P Section 5.3.1 and within the SMP –</p>	<p>Design, sizing and locations of the OSD basins is discussed</p>

CoC	Requirement	Document Reference	How Addressed
	adjacent to the Moorebank Avenue upgrade, an alternate slope gradient agreed to by RMS	Remainder of the Site	<p>within the Stormwater Management Plan</p> <p>Sediment basins are proposed to manage stormwater flows during the construction phase and have been designed and located in accordance with the Blue Book, as described in the CЕСCP and the Primary ESC Drawings (Appendix A of the CЕСCP). Sediment basins will be constructed in accordance with SD 6-4.</p>
	(iv) siting and design of onsite detention basins to eliminate/ minimise excavation within the southern ordinance burial pits; and	Contamination Management Plan Section 11	<p>Design, sizing and locations of the OSD basins is discussed within the Stormwater Management Plan</p> <p>It is noted that two sediment basins fall partially within the area identified as the 'southern ordinance burial pits'. This area, however, has been surveyed and a clearance certificate provided. Any Unexpected Ordinance identified during construction of the sediment basins will be managed in accordance with the Unexpected Finds Procedure detailed within Section 11 of the Contamination Management Plan prepared as part of the CEMP.</p>
	(v) maintenance access to be provided to each on site detention basin	SMP- W1P Section 5.3.1 and within the SMP – Remainder of the Site	<p>Design, sizing, locations and provision for maintenance access is discussed within the Stormwater Management Plan.</p> <p>Sediment basins have been designed and located in accordance with the Blue Book, as described in the CЕСCP and the Primary ESC Drawings (Appendix A of the CЕСCP).</p>
	<p>(d) Connection to natural creek lines</p> <p>(i) on site detention basin outlets to natural drainage lines must be constructed of natural materials to facilitate natural geomorphic processes and to include vegetation as necessary (gabion baskets and gabion mattresses are not acceptable).</p>	<p>CESCP – Appendix A</p> <p>Stormwater Management Plan</p>	<p>The connection of OSDs to the natural creek lines is discussed in the Stormwater Management Plan. As per the Stormwater Management Plan, OSD basin outlets will be constructed with natural materials.</p> <p>No sediment basins proposed for construction connect directly</p>

CoC	Requirement	Document Reference	How Addressed
			to natural creek lines (re EWESC Drawings).
	<p>(e) Stormwater Quality</p> <p>i) have a stormwater quality treatment train comprised of gross pollutant traps and biofiltration/ bioretention systems designed to meet the following criteria compared to a base case if there were no treatment systems in place:</p> <ul style="list-style-type: none"> • reduce the average annual load of total nitrogen by 45%; • reduce the average annual load of total phosphorus by 65%; and • reduce the average annual load of total suspended solids by 85%. <p>ii) all stormwater quality elements are to be modelled in MUSIC as per the NSW MUSIC Modelling Guide.</p> <p>iii) all stormwater quality elements are to be installed upstream of stormwater detention basins, unless it can be demonstrated that biofiltration/ bioretention systems within the OSD basins will not suffer damage from design flows and can be maintained to achieve the water quality criteria.</p> <p>iv) the area of biofiltration / bioretention systems is to be at least 1% of the catchment draining to the system, to ensure there is no short-circuiting of the system.</p> <p>v) bioretention systems which are greater than 1,000m² in area, are to be divided into cells with no individual cell greater than 1,000m².</p> <p>vi) all filter media used in stormwater treatment measures must:</p> <ul style="list-style-type: none"> • be loamy sand with an appropriately high permeability under compaction and must be free of rubbish, deleterious material, toxicants, declared plants and local weeds, and must not be hydrophobic; • have a hydraulic conductivity = 100-300 mm/hr, as measured using the ASTM F1815-06 method • have an organic matter content less than 5% (w/w) <p>vii) be provided adequate solar access, considering the design and orientation of OSD basins.</p>	<p>SMP- W1P Section 6 and within the SMP – Remainder of the Site</p>	<p>Sediment basins for construction will be designed and located in accordance with the Blue Book, which is considered more appropriate for modelling the pollutant removal capacity of construction phase sediment basins.</p> <p>Appropriate construction discharge limits have been adopted and are included in Section 3.4 of this plan. Construction stormwater management elements are described in the CЕСCP and shown in the Primary ESC Drawings.</p> <p>Stormwater quality management for operational elements i.e. OSDs, are described in Section 6 of the SMP – W1P and will be further detailed in the SMP – Remainder of the Site</p>
	<p>A copy of the independent review must be submitted with the Plan. A statement from the reviewer confirming their independence and declaring any actual, potential or perceived conflicts of interest must be provided as part of the reporting of the findings and recommendations of the review.</p>	<p>N/A</p>	<p>A copy of the independent review was submitted with the SMP- W1P, and an additional independent review will be undertaken prior to submission of the SMP – Remainder of the</p>

CoC	Requirement	Document Reference	How Addressed
			Site. the review will be submitted with the plan. - .
B40 A	OSD 9 as described in the modification application SSD-7628-Mod-2 must comply with the conditions of this consent, including B40, except for Condition B40(c)(iii).	N/A	Noted.
B44	<p>The Stormwater Monitoring Program must:</p> <p>(a) assess water quality and quantity performance for construction discharges and ongoing stormwater discharges from the development to ensure protection of the desired ecological values of Anzac Creek; and</p> <p>(b) include sampling locations and the frequency of sampling including wet weather sampling.</p>	<p>Section 3.1.1</p> <p>Section 3.4.5</p> <p>Section 4.1</p>	<p>The Stormwater Monitoring Program required by CoC B43 is a pre-operation requirement.</p> <p>Existing water quality conditions have been established and are described in Section 3.1.1.</p> <p>CoC B44 is relevant to this CSWMP in that accurate records are required for water quality discharges during construction so that they can be assessed in the Stormwater Monitoring Program. Records of dewatering activities are addressed in Section 3.4.5 (SW53).</p> <p>On site water, will be directed to sediment basins. Water that meets the discharge criteria (refer Section 3.4.5, SW52), will be discharged into existing stormwater infrastructure.</p> <p>Water quality monitoring of Anzac Creek is being undertaken in accordance with CoC B106.</p>
B45	Conversion of any construction stage sediment and erosion control measures into permanent stormwater quality treatment elements must only occur once the civil works (roads and drainage) have been completed for the site to ensure the treatment measure is not compromised by sediment runoff.	Section 3.4	Section 3.4 (SW19 and SW39) addresses the requirement of this condition.
B112	<p>The Applicant (the operator/occupant of each premises) must store and handle all chemicals, fuels and oils, including Dangerous Goods as defined in the Australian Code for the Transport of Dangerous Goods by Road & Rail, in accordance with:</p> <p>(a) the requirements of all relevant Australian Standards; and</p> <p>(b) the NSW EPA's Storing and Handling of Liquids: Environmental Protection – Participants Handbook if the chemicals are liquids.</p>	Section 3.4	Requirements for the storage of chemicals, fuels, oil, and Dangerous Goods as defined in the Australian Code for the Transport of Dangerous Goods by Road & Rail are outlined in Section 3.4 (SW46 and SW48).

CoC	Requirement	Document Reference	How Addressed
	In the event of an inconsistency between the requirements listed above, the most stringent requirement shall prevail to the extent of the inconsistency.		
B113	The Applicant (the operator/occupant of each premises) must ensure compliance with the Environment Protection Manual for Authorised Officers: Bunding and Spill Management – technical bulletin (EPA, 1997 and that for liquids, a minimum bund volume of 110% of the volume of the largest single stored volume within the bund is required.	Section 3.4	Management measure (SW44) is outlined in Section 3.4, to ensure compliance is met with the requirements from the Environment Protection Manual for Authorised Officers: Bunding and Spill Management – technical bulletin (EPA, 1997).
B114	The quantities of Dangerous Goods present at any time within each premises or transported from and to the development must be kept below the screening threshold quantities listed in the Department's Hazardous and Offensive Development Guidelines Application Guidelines Applying SEPP 33 (January 2011).	Section 3.4	Quantities of Dangerous Goods must be kept in accordance with the Department's Hazardous and Offensive Development Guidelines Application: Guidelines Applying SEPP 33 (January 2011), as stated in Section 3.4 (SW46 and SW48).
C7	The Applicant must ensure that the environmental management plans required under this consent are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data; Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for a particular management plan.	This plan	Section 3.1 details the existing environment and provides available baseline data for the Site.
	(b) a description of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures/criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Section 2.1 Sections 1.5 Table 3	(i) Section 2.1 lists the environmental obligations for the Project site. (ii) Section 1.5 details the objectives and performance measures. (iii) Table 3 under Section 1.5 details the performance indicators.
	(c) a description of the management measures to be implemented to comply with the relevant statutory requirements, limits or performance measures/criteria;	Section 3.4 Table 17	Section 3.4 and Table 17 stipulates the management measures for construction.
	(d) a program to monitor and report on the: (i) impacts and environmental performance of the development; and	Section 4.1 to 4.4	(i) Program on monitoring and reporting of impacts and environmental performance is

CoC	Requirement	Document Reference	How Addressed
	(ii) effectiveness of any management measures (see (c) above);		discussed under Section 4.1 and 4.2. (ii) Section 4.4 states ongoing evaluation on performance and effectiveness will be undertaken against policies, objectives and targets.
	(e) a contingency plan to manage any unpredicted impacts and their consequences;	Appendix B - Emergency Spill Response Procedure Table 18 CEMP – Section 2.8.1	Incidents will be notified and works within the vicinity will stop immediately as per the Emergency Spill Response Procedure in Appendix B for spills which occur at the Project site. Monitoring and inspections in response to rainfall events will be undertaken in accordance with Table 18. As described in Section 3.3.4, an Incident Response procedure is outlined in Section 2.8.1 of the CEMP and is to be referenced for all environmental incidents that occur at the Project site.
	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 4.4	Improvement measures are discussed under Section 4.3 through ongoing evaluation and effectiveness of the program.
	(g) a protocol for managing and reporting any: (i) incidents and non-compliances; (ii) complaints; (iii) non-compliances with statutory requirements; and	Section 4.3 CEMP – Section 4.4	Section 4.3 and the CEMP outlines the protocol for managing and reporting complaints, incidents, non-conformances and non-compliances.
	(h) a protocol for periodic review of the plan.	Section 4.4 CEMP – Section 2.8.1	A protocol for periodic review is outlined in Section 4.4. Further detail is provided within the CEMP in Section 2.8.1.

The Final Compilation of Mitigation Measures (FCMMs) were prepared as part of the MPE Stage 2 Submissions Report (Arcadis 2017). A list of the FCMMs as relevant to the Project and how they have been complied with in this plan are provided in Table 6.

Table 6 Final Compilation of Mitigation Measures (FCMMs)

FCMM	Requirement	Document Reference
5A	A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP), or equivalent, would be incorporated into the CEMP for the construction of the Amended Proposal. The SWMP and ESCPs would be developed in accordance with the principles and requirements of Managing Urban Stormwater – Soils & Construction Volume 1 ('Blue Book') (Landcom, 2004) and Volume 2 (DECC 2008) and consider the Preliminary ESCPs (Appendix P of the EIS). The following aspects would be addressed within the SWMP and ESCPs:	This plan
	<ul style="list-style-type: none"> Construction traffic restricted to delineated access tracks, and maintained until construction complete 	Section 4.1
	<ul style="list-style-type: none"> Appropriate sediment and erosion controls to be implemented prior to soil disturbance 	Appendix A – CESC
	<ul style="list-style-type: none"> Stormwater management to avoid flow over exposed soils which may result in erosion and impacts to water quality 	SMP- W1P and SMP – Remainder of the Site prepared as separate documents to this CSWMP. Appendix A – CESC
	<ul style="list-style-type: none"> Location of stockpiles outside of flow paths on appropriate impermeable surfaces as well as outside of riparian corridors 	Figure 1-2
	<ul style="list-style-type: none"> Inspection of all permanent and temporary erosion and sedimentation control works prior to and post rainfall events and prior to closure of the construction area 	Section 4.1
5B	<ul style="list-style-type: none"> Wheel wash or rumble grid systems installed at exit points to minimise dirt on roads. 	Section 3.3
	<p>To minimise potential flood impacts as a result of construction of the Amended Proposal, the following measures would be implemented and documented in the SWMP:</p> <ul style="list-style-type: none"> The existing site catchment and sub-catchment boundaries would be maintained as far as practicable To the extent practicable, site imperviousness and grades should be limited to the extent of existing imperviousness and grades under existing development conditions. 	Section 3.3
5C	A Flood Emergency Response and Evacuation Plan, or equivalent, would be prepared and implemented for the construction phase of the Amended Proposal to allow work sites to be safely evacuated and secured in advance of flooding occurring at the Amended construction area.	FERP prepared as a separate document to this CSWMP.
5D	Stormwater quality improvement devices management measures would be designed and installed on site as presented in the stormwater and Flooding Environmental Assessment (Appendix P of the EIS), including:	Installation of stormwater management Improvement devices would be included within detailed design for the purpose of meeting relevant water quality performance targets during

FCMM	Requirement	Document Reference
	<ul style="list-style-type: none"> Gross pollutant traps (GPTs) Rain gardens in the base of the OSD channels, as shown in Figure 6-1 of Appendix P of the EIS. Stormwater quality improvement devices would be designed to meet the performance targets identified in Georges River Estuary CZMP. 	<p>operation. This detail will be provided in the OEMP for the Project.</p> <p>Refer to SMP- W1P and SMP – Remainder of the Site prepared as separate documents to this CSWMP.</p>
5G	Separated oily wastes would be captured and stored so that they do not enter the stormwater system.	<p>CDWMP has been prepared separately to this document, provided as Appendix M of the CEMP.</p> <p>Section 3.4</p>
5H	<p>Measures associated with the OSDs to be developed during the detailed design phase would include:</p> <ul style="list-style-type: none"> Security fences – security fencing with locks would keep general public from entering the OSD basins. Only maintenance personnel or other relevant personnel with induction would be allowed into the basins. Ladders – ladders are to be provided at regular intervals to provide safe access and egress Access Ramp/ Sloped Driveway – would be provided for maintenance and emergency vehicles. All OSD basins would have minimum base width of 6.0m. Maintenance access is to be provided along the base of the basin with access points via ramp/ sloped driveway. Appropriate scour protection and energy dissipation will be provided at drainage outlets to control velocities in the OSD channels to less than 1.0m/s. Raingarden (bioretention) will be located in areas sufficiently away from drainage outlets to avoid re-suspension of sediments. The OSD outlets will be protected from blockage via combination of anti-blockage measures, such as palisade fencing, surcharge pit inlet grate and orifice trash screen in accordance with the Australian Rainfall and Runoff 2016 Project 11. 	<p>Section 3.4</p> <p>SMP- W1P and SMP – Remainder of the Site prepared as separate documents to this CSWMP. Sediment basins will be progressively constructed during construction to manage stormwater flows.</p>
6G	The CEMP would include an Earthworks Specification, which would include details on earthworks material criteria, handling and placement requirements, embankment and cutting formation (including foundation, batter and benching requirements), unsuitable material and bridging layer requirements, conformance testing methods and acceptance criteria (e.g. for material acceptance and compaction control).	Refer to the Site Specific Earthworks Specification prepared separately to this plan.

2.1.1.2 EPBC Approvals

The EPBC Act approval for the MPE Concept was granted by the Department of the Environment in March 2014 (No. 2011/6229). This approval was provided for the impact of the MPE Project on listed threatened species and communities (Sections 18 and 18A of the EPBC Act) and Commonwealth land (Sections 26 and 27A of the EPBC Act).

The EPBC Act approval for the MPW Concept was granted by the Commonwealth Department of Environment and Energy (DotEE) in September 2016 (No. 2011/6086). This approval was provided for the impact of the MPW Project on listed threatened species and communities (Sections 18 and 18A of the EPBC Act) and Commonwealth land (Sections 26 and 27A of the EPBC Act).

The Moorebank Avenue upgrade works will be performed under the MPE Stage 2 Consent as described in Section 1.1 and 1.3 of the CEMP. Since the western side of the Moorebank Avenue upgrade works construction footprint is located in an existing area of hardstand within the MPW site, the works must comply with the MPW Commonwealth Approval.

The construction and operation of the Project has been designed to be consistent with the EPBC Act Approval conditions, where relevant. EPBC Act Approval conditions for the Project include specific conditions and commitments that are required to be addressed in this plan. These conditions are identified within Table 7, along with where they have been addressed in preparing this plan.

Table 7 Commonwealth Conditions of Approval (CoA)

Condition	Requirement	Document Reference
MPE EPBC Approval (2011/6229)		
2B	Implement all feasible and practicable measures that ensure sedimentation and/or erosion (as a result of the proposed action) do not lead to any further reductions in the water quality or degradation of, Macquarie Perch habitat.	Construction activities associated with MPE Stage 2 would not impede directly with any Macquarie Perch habitat in the Georges River. Management measures outlined in Section 3.4. Appendix A will also ensure water discharge is in accordance with the appropriate criteria.
7	<p>For the better protection of Commonwealth land, the persons taking the action must engage a suitably qualified expert(s) to prepare a Construction Environment Management Plan (CEMP), for the approval of the Minister. The CEMP must include in relation to construction of the proposed facility:</p> <p>(a) details on the timing of construction works (accompanied by current and detailed maps);</p> <p>(b) identification and quantification of all potential impacts associated with noise, vibration, air quality, traffic, light spill, hydrological changes, contamination and indigenous heritage (including cumulative impacts associated with the DoF's proposed intermodal) upon Commonwealth land. Consideration must be given to people and communities at SME, DNSDC, Defence housing, and the environment more generally in neighbouring bushland areas. Of note, the air quality assessment must quantify all emissions arising from air pollutant sources for which there are established national air quality standards.</p> <p>(c) the results of further investigations with regard to land contamination and indigenous heritage impacts (specifically, PADs two and three). If adverse impacts are identified, details on how such matters will be managed / mitigated must also be provided.</p> <p>Evidence of ongoing consultation with RAPs regarding further investigations for indigenous heritage objects/places must be provided.</p> <p>(d) refined details (including implementation timeframes) for the mitigation measures outlined in the EIS (sections 7.4.2, 7.4.3, 7.4.6, 7.4.7, 7.4.8 and 7.4.9) and summarised in Annexure A;</p> <p>(e) a commitment to ensure no lights are installed above the height of 40 metres or, the maximum approved height of the intermodal warehouse buildings (whichever is less);</p> <p>(f) Identification of the trigger values and criteria for all matters mentioned in condition 7(b) (excluding light spill, land contamination and indigenous heritage) and will be adopted for monitoring and managing potential impacts to Commonwealth land;</p> <p>(g) details of a comprehensive monitoring program (including locations, frequency and duration) for:</p>	<p>This plan</p> <p>a) Section 1.2</p> <p>b) Section 3.1</p> <p>c) Section 3.1 of the MPE Stage 2 Cultural Heritage Management Plan provides information relating to PADs and implications for the Project. Section 4.7 of the MPE Stage 2 Cultural Heritage Management Plan outlines provisions for ongoing consultation with RAPs. Previous and ongoing investigations associated with contamination are outlined in the MPE Stage 2 Contamination Management Plan.</p> <p>d) Section 3.4 and Section 4.1</p> <p>e) N/A</p> <p>f) Section 1.5 and Section 4.1 (further details of triggers and criteria are presented in Section 3.2 of the Baseline Aquatic Ecological Monitoring Programme and Section 6 of the Baseline Aquatic Ecological Monitoring Report and Biodiversity Monitoring Program)</p> <p>g) Section 4.1 and Table 19</p> <p>h) Section 4.4</p> <p>i) N/A – School of Military Engineering has relocated from the site</p>

Condition	Requirement	Document Reference
	<p>i. Validating the anticipated impacts associated with condition 7(b)</p> <p>ii. Determining the effectiveness of proposed mitigation/management measures;</p> <p>(h) provisions to revise the approved CEMP in response to monitoring associated with condition 7(g) including, details of response / contingency mechanisms to address any exceedances of the relevant trigger values;</p> <p>(i) evidence of consultation with Defence regarding the adequacy of proposed mitigation measures in particular, those measures to mitigate potential light spill impacts upon residential dwellings within SME outside of standard construction hours; and</p> <p>(j) Details of a complaints handling procedure.</p> <p>Commencement of the action may not occur until the CEMP has been approved. The CEMP must be implemented once approved.</p>	j) Section 4.5
MPW EPBC Approval (2011/6086)		
9	<p>Sections of the CEMP and OEMP relating to water must be prepared by a suitably qualified expert and must:</p> <p>a) be consistent with the Water Quality, Storm water and Flooding Provisional Environmental Management Framework (2 July 2014),</p> <p>b) incorporate all measures 9A to 9AG from Table 7.1 of the finalised EIS that are described as 'mandatory'</p> <p>c) explain how all measures 9A to 9AG from Table 7.1 of the finalised EIS that are described as 'subject to review' have been addressed</p> <p>d) be approved by the Minister or a relevant New South Wales regulator.</p>	<p>This Plan</p> <p>Also see the SMP – W1P</p> <p>Section 3.4 excluding 9D, 9G, 9H, 9J and 9T which are not applicable to the MPE site. Section 3.1.6 addresses measures 9AC and 9AG SMP – W1P addresses measures 9F, 9K, 9U-9Y</p> <p>Section 3.4 excluding 9C, 9I and AE which are not applicable to the MPE site SMP – W1P addresses measures 9Z</p> <p>This plan was approved by DP&E on 8 June 2018</p>

The MPW Commonwealth mitigation measures relevant to this plan are detailed in Table 8. Note that there are no Commonwealth mitigation measures under the MPW EPBC Approval.

Table 8 MPE Commonwealth Mitigation Measures (CMM)

MPE Concept Approval	Requirement	Document Reference
Hydrology	The following mitigation measures will be adopted for the SIMTA proposal to mitigate potential impacts on hydrology, water quality and flooding resulting from construction and operation of the SIMTA proposal:	N / A
	Rainwater tanks will be installed to collect roof water from the warehouses on the SIMTA site and will be used for non-potable water demands such as toilet flushing and outdoor use.	SMP- W1P and SMP – Remainder of the Site prepared as separate documents to this CSWMP.
	Pre-treatment measures will be incorporated into the site stormwater design, including buffer strips and gross pollutant traps where deemed appropriate.	SMP- W1P and SMP – Remainder of the Site prepared as separate documents to this CSWMP.
	Bio-retention systems will be incorporated into the site stormwater design, including rain gardens and bioswales, where deemed appropriate. These structures will also act as on-site detention basins, minimising the velocity and volume of flows leaving the site during storm events. Bio-retention systems will be designed to achieve the pollution reduction targets set out in the Liverpool DCP.	SMP- W1P and SMP – Remainder of the Site prepared as separate documents to this CSWMP.
	On-site stormwater detention will be designed to achieve flood management in accordance with the flood modelling results outlined in the Flood Study and Stormwater Management report prepared by Hyder Consulting (Hyder Consulting, 2012a) and as updated within the Stormwater and Flooding Assessment (Hyder Consulting, 2012b).	SMP- W1P and SMP – Remainder of the Site prepared as separate documents to this CSWMP.
	A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP) will be implemented for the construction and operation phases of the development, with monitoring and review performance of sediment and water control structures during construction and operation phases. The SWMP and ESCPs will be developed in accordance with the principles and requirements of Managing Urban Stormwater (Landcom, 2004).	This plan Appendix A – CESC

2.1.1.3 Other Approvals

The Revised Statement of Commitments (RSoC) includes the most recent compilation of SIMTA commitments to mitigate the environmental impacts, monitor the environmental performance and/or achieve a positive environmentally sustainable outcome. These RSoCs (June 2017) were presented in the Moorebank Precinct East – Concept Plan Modification 2 Response to Submissions. The RSoC that are relevant to this plan are identified in Table 9.

Table 9 Revised Statement of Conditions (RSoC)

RSoC	Requirement	Document Reference
Stormwater and Flooding	Implementation of management plan strategies prior to commencement of the staged construction phase	This plan and CEMP will be implemented prior to and throughout Construction Phase Table 14
	Monitoring and review performance of sediment and water control structures during construction	Section 4.1 Table 18
	The Proponent will prepare and update a flood emergency response plan as necessary to address the staged development of the site. Details are to be provided prior to the construction of each of the three major stages of the development	FERP prepared separately to this document

Infrastructure Sustainability Council of Australia (ISCA) requirements relevant to this plan are detailed in Table 10.

Table 10 Infrastructure Sustainability Council of Australia (ISCA) Requirements

ISCA Credit Reference	Requirement	Document Reference
Dis-1 Receiving Water Quality	<ul style="list-style-type: none"> Measures to minimise adverse impacts to local receiving water quality during construction are implemented Monitoring of water discharges and receiving waters is undertaken at appropriate intervals and at times of discharge during construction Water discharge is managed and reported to meet the requirements of Section 2 of the CEMP. 	Table 17 Table 18 Section 4.1
Lan-2 Conservation of on-site resources	The Construction Contractor must ensure: <ul style="list-style-type: none"> Conservation of topsoil and subsoil has been considered All subsoil and topsoil impacted by the construction works is separated and protected from degradation, erosion or mixing with fill or waste 95% of all topsoil (by volume) retains its productivity and is beneficially re-used on or nearby to the project or asset. Development and maintenance of spoil tracking register. 	CDWMP and CSMP have been prepared separately to this document.

2.2 Roles and Responsibilities

All Project personnel are responsible for the implementation of this CSWMP and have the responsibility to stop works if there is potential for a safety or environmental incident to occur.

The key roles and responsibilities of Project personnel in relation to soil and water management are outlined below in Table 11.

Table 11 Role and Responsibilities

Roles	Responsibilities
Contractor's Project Manager (Contractor's PM)	<ul style="list-style-type: none"> • Provision of training in erosion and sediment control for personnel directly involved with implementation • Include environmental considerations into all aspects of Project planning • Ensure that Project responsibilities and authorities are defined and communicated • Attend audit meetings and action results of any audit findings • Allocate Project resources to handle environmental issues • Oversee the implementation and maintenance of the CSWMP • Endorse the CSWMP • Appoint / nominate and provide support for the Contractor's EM • Report to senior management and the Principal's Representative on the performance of the system and environmental breaches • Undergo induction and training in environmental awareness • Take action to resolve environmental non-conformances and incidents • Sign off on all environment and sustainability inspections • Enforce environmental requirements for suppliers and sub-contractors • Report environmental incidents to the Principal's Representative • Authorise expenditure to implement environmental management requirements within limits of authority as defined in the Principal's Representative Project requirements • Undertake ICAM investigations • Review audit corrective actions and take action as necessary to ensure timely close out of issues • Be contactable 24 hours a day • Direct works to be performed in a more environmentally responsible manner that reduces impacts or stop works if there is a risk of environmental harm.
Contractor's Construction Manager (Contractor's CM)	<ul style="list-style-type: none"> • Communicating with all personnel and sub-contractors regarding conformance and compliance with the CSWMP and site specific environmental issues / EWMS • Undergo induction and training in environmental awareness as directed by management • Identifying resources required for implementation of the CSWMP • Organise and manage site plant, labour and temporary materials • Record and communicate volumes of spoil brought to the site to the Principal's Representative on a weekly basis • Co-ordinating the implementation and maintenance of site environmental controls and provide support for the Contractor's EM

Roles	Responsibilities
	<ul style="list-style-type: none"> Report all environmental incidents in accordance with incident reporting protocol Undertake ICAM investigations Take action to resolve non-conformances and incidents Be contactable 24 hours a day Direct works to be performed in a more environmentally responsible manner that reduces impacts or stop works if there is a risk of environmental harm.
Contractor Environmental Manager (Contractor's EM)	<ul style="list-style-type: none"> Assist and guide the respective workers to meet their environmental responsibilities Check and monitor the implementation of this CSWMP, including completion of weekly inspection checklists Monitor the rectification / reinstatement of site controls Development, implementation, monitoring and updating of the CESCPS Direct works to be performed in a more environmentally responsible manner that reduces impacts or stop works if there is a risk of environmental harm Cooperate and participate in audits and action results of any audit findings Ensure all personnel are appropriately trained.
Site Supervisor	<ul style="list-style-type: none"> Implement environmental controls on-site Present and participate in toolbox talks and meetings Train staff in their obligations under EWMS and the CЕССР Complete daily inspection checklist for ERSED controls Meet environmental reporting requirements of the Project Undergo induction and training in environmental awareness as directed by management Record and communicate the volumes of spoil brought to the site on a daily basis to the Contractor's CM and the Principal's representative Direct works to be performed in a more environmentally responsible manner that reduces impacts or stop works if there is a risk of environmental harm.
All Personnel	<ul style="list-style-type: none"> Minimise the potential of pollution of land, air and water Take all feasible and reasonable steps to ensure conformance and compliance with the requirements of this CSWMP.
Principal's Representative	<ul style="list-style-type: none"> Review the CSWMP to ensure that it meets all relevant regulatory and Project requirements. Review the Construction Contractor's environmental monitoring reports and compliance documentation to confirm that the CSWMP is being implemented. Issue a stop work direction immediately where an unacceptable environmental impact may occur Liaise with relevant regulators if an incident occurs Ensure that independent and internal audits of the system are conducted Review audit outcomes and act as necessary Review environmental performance through the monthly reporting cycle To manage all aspects of the contract between SIMTA and the Construction Contractor

Roles	Responsibilities
	<ul style="list-style-type: none"> Stop works if required.

2.3 Training

Training will be undertaken in accordance with Section 2.8 of the CEMP. The Construction Contractor will provide all employees with suitable environmental induction / training (relevant to this CSWMP) to ensure that they are aware of their responsibilities and are competent to carry out the work.

Additional training will be provided if required in response to a review of the CEMP or sub-plans requiring a change in environmental management, following an environmental incident, or due to the results of environmental monitoring.

As a minimum the induction will include the following:

- Existence and requirements of this CSWMP
- Relevant legislation- penalties, fines
- Roles and responsibilities for soil and water management
- Water quality management and protection measures
- Stockpile management measures
- Spill response
- Dewatering procedures.

Toolbox meetings will also be undertaken, as and when required.

Personnel directly involved in implementing sediment and erosion control (ERSED) measures on the Project site will be given specific training in the construction, operation and maintenance of the various measures to be implemented. Examples of training topics include:

- ERSED control installation methodology
- Water quality monitoring for discharged water
- Working near or in drainage lines or areas of overland flow
- Emergency response measures in high rainfall events
- Preparedness for high rainfall events
- Lessons learnt from incidents and other events (e.g. high rainfall or flooding)
- Mulch and tannin management
- Spill response
- Stockpile location criteria.

Personnel conducting sampling, measuring, monitoring and reporting activities are to be suitably trained or experienced in the activity. Records of all training are to be filed in accordance with the project filing system.

It is the Contractor's EM responsibility to ensure all personnel are appropriately trained as outlined above.

Competency training will be provided by the Construction Contractor as required and may include a certification, vocational qualification or a competency assessment.

Records of all training are to be filed in accordance with the document control system outlined in the CEMP.

3 IMPLEMENTATION

3.1 Existing Environment

3.1.1 Topography and Hydrology

The topography of the Project site is relatively flat, with reduced levels (RLs) ranging between 14 and 16 m Australian Height Datum (AHD). The existing MPE site comprises approximately 70% impervious surfaces, including building rooves and roads.

The Project site falls within the Georges River Estuary catchment with a receiving environment of Botany Bay. The Botany Bay catchment includes residential, industrial, commercial, recreational and bushland with the main sources of pollution coming from stormwater runoff. Hydrology in the local area surrounding the Project site is characterised by the Georges River approximately 800 m west and Anzac Creek (a tributary to the Georges River). Both act as receivers for the Project site's surface water. Figure 3-1 shows the existing catchments and drainage on the MPE site. Assessment of hydrology across the Project site as presented in the EIS identified that the Project site is roughly divided north-south by a catchment boundary, with the eastern portion discharging to Anzac Creek (via outlets in the north-east (Outlet A) and south-east corners (Outlet B) of the Project site, respectively). The north-eastern portion of the construction footprint currently drains to Anzac Creek via formalised drainage channels and pipes within the MPE site, which report to a culvert under the Greenhills Road corridor. The south-eastern portion of the MPE Stage 2 site drains under the Greenhills Road corridor via a culvert, before discharging to Anzac Creek, within the proposed biodiversity conservation area.

Stormwater flows on the western portion of the Project site are diverted into a formal concrete lined channel parallel to Moorebank Avenue, before being discharged into Georges River via an outlet (culvert) from the Site (running underneath Moorebank Avenue) and through a channel that runs across the adjacent MPW site (Outlet C). Figure 3-3 shows the 100-year flood depth and storage within MPE Georges River Catchment, based on the modelling undertaken for the MPE Stage 2 Response to Submissions (RtS) (Arcadis, 2017).

Figure 3-4 shows the location and extent of existing stormwater infrastructure on the Project site based on recent survey information (CoC B34(h)).

DRAINS software was used during the Project EIS to generate rainfall runoff models that represent existing stormwater conditions (additional detail regarding the modelling undertaken and additional results is included in EIS Appendix P). A summary of peak flows discharging from the Project site for the existing conditions is included in Table 12.

Table 12 Existing Peak Flows

Discharge Location	Catchment Area (ha)	Flow (m ³ /s)		
		5yr ARI	100yr ARI	PMF
Outlet A (Greenhills Road North)	21.76	3.4	4.1	23
Outlet B (Greenhills Road South)	27.45	0.5	3.0	15
Outlet C (downstream of Moorebank Ave)	59.95	6.9	12.9	75

The land adjacent to the Project site has been redeveloped for the Defence Joint Logistics Unit (DJLU) site, which included development of a stormwater management plan, in accordance with DWG No. ACR-0367-0000-CI-SK-0050 Issue H 20.07.12, prepared by Acor Consultants for the Australian Government

Department of Defence, Defence Support Group. The stormwater plan of the neighbouring development introduced various new channels, culverts and embankments, including scour protection at the point of discharge from the MPE site.

Modelling undertaken for the MPE Stage 2 RtS (refer RtS, Appendix E) shows that the stormwater infrastructure on the adjacent DJLU land contains the 100-year annual recurrence interval (ARI) flows and therefore that system is adequately designed for the existing case. Figure 3-2 shows the existing stormwater capacity within the adjacent DJLU site based on the RtS modelling.

Appendix C includes a memorandum outlining the existing easements to drain water from the MPE site, which includes an easement for the existing channel on the DJLU site. The terms of the easements to be granted in favour of the MPE site and relevant third party providers will make provision for who will be responsible for the ongoing maintenance of the drainage facilities and work to maintain the easement at the design capacity will be undertaken in accordance with the terms of this easement.

The south-eastern portion of the MPE site drains under the Greenhills Road corridor via a 0.45 m diameter culvert.

The western portion of the MPE site discharges to the Georges River via a culver that runs under Moorebank Avenue into a channel on the MPW site that discharges into the Georges River. Infrastructure on the MPW site is initially a concrete lined trapezoidal shape, before intersecting with an energy dissipater which has catastrophically failed resulting in scouring. The channel then continues as an incised and scoured unlined waterway, dropping away quite steeply down to the Georges River. Appendix C includes a memorandum outlining the proposed easements and agreements in place between SIMTA and adjacent landowners, and includes the form of easement instrument which provides the wording to be used for future easements for services, support, drainage, access, etc. to be granted, including those to be granted in favour of MPE site burdening the adjacent MPW site. Information included in Appendix C identifies SIMTA as the responsible entity for the construction, operation and ongoing maintenance of drainage facilities within the Moorebank Precinct, including over the MPW site. Any works to upgrade drainage infrastructure on the MPW site will be undertaken in accordance with the relevant planning approvals.

In accordance with CoC B34(i) and (j) it is noted that, as a condition of sale of the MPE site, the Commonwealth of Australia entered into the Deed of Agreement Pertaining to Services with SIMTA that provided for the continued provision of services to the MPE site across adjacent land owned by the Commonwealth (Appendix C). These services included drainage. Until such time, the owner of the MPE site has made alternative arrangements for the provisions of those services with a third party provider or an alternative arrangement is in place, the Commonwealth must continue to provide SIMTA with the benefit of the provision of services, including drainage across the Commonwealth owned land. Additionally, in December 2015 SIMTA entered into a Deed of Surrender of Lease (the terms of which are confidential) with the Commonwealth as part of the hand back of the MPE site from the Commonwealth. Amongst other things this Deed, required the Commonwealth to grant a number of easements for services in favour of the MPE site and third party providers.

Construction Soil and Water Management Plan

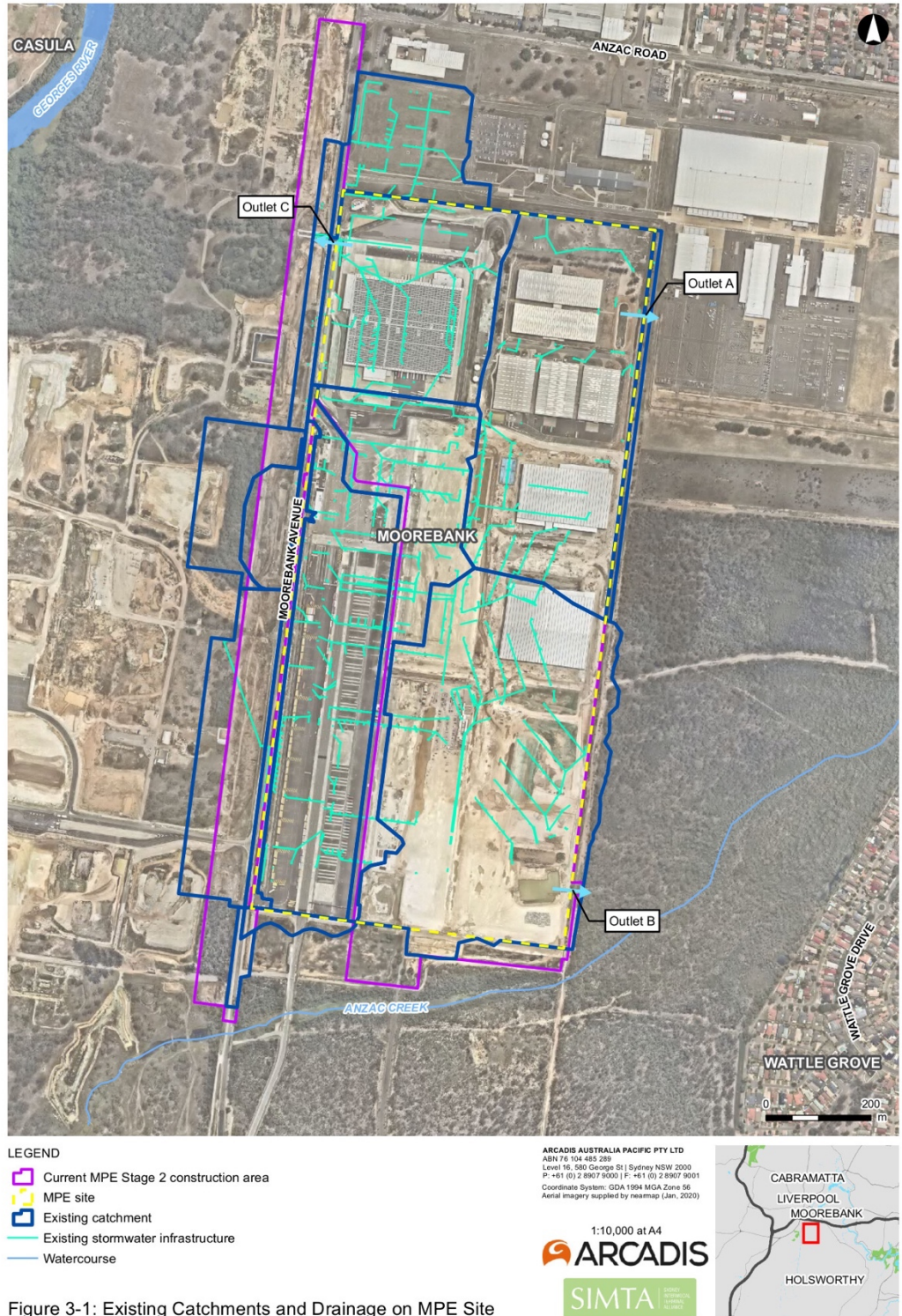


Figure 3-1: Existing Catchments and Drainage on MPE Site

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Figure 3-1 Existing Catchments and Drainage on MPE Site

Construction Soil and Water Management Plan

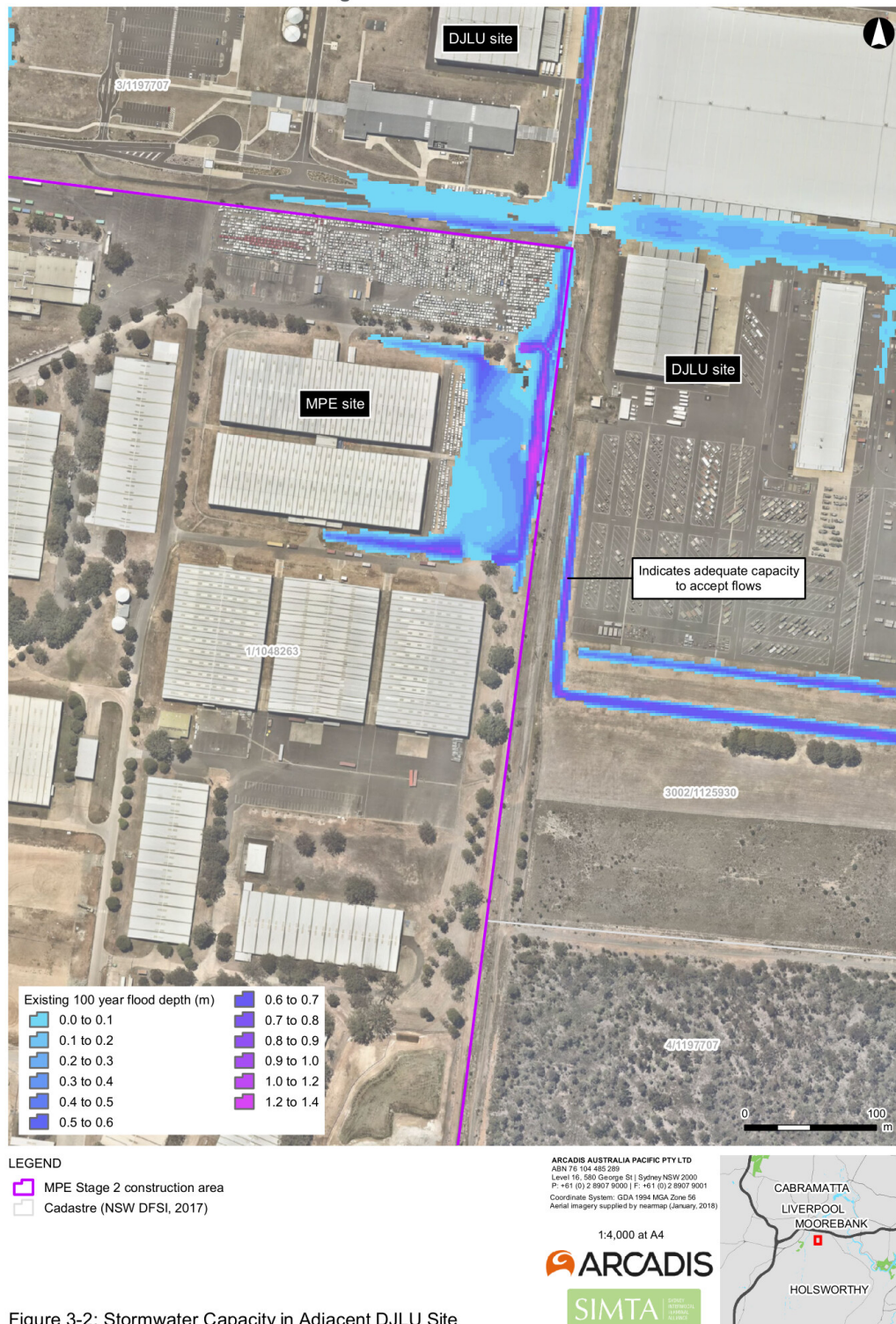


Figure 3-2: Stormwater Capacity in Adjacent DJLU Site

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Figure 3-2 Stormwater Capacity in Adjacent DJLU Site

3.1.2 Water Quality

The Georges River and Anzac Creek are classified as lowland aquatic ecosystems of south-eastern Australia. The Project EIS states that water quality parameters were found to be within the guidelines with the exception of pH and dissolved oxygen (DO). Spot measurements within the Georges River and Anzac Creek demonstrated pH 6.06 and 5.62 respectively (guideline value 6.50) and DO below the lower guideline value of 60% saturation in both locations (ALS Water Sciences, 2011).

This was generally supported by baseline monitoring undertaken in Anzac Creek in accordance with CoC B106 in Autumn 2018 which identified a moderate level of stream impairment and poor water quality, with an impoverished macroinvertebrate community (Biosis, 2018). Water quality monitoring identified reduced dissolved oxygen values and elevated Aluminium levels outside of guideline values within areas able to be sampled. The pH values recorded were considered to be nominal.

Further detail of the existing water quality in adjacent waterways can be found in the *Baseline Monitoring Report*, Biosis 2018, prepared in accordance with CoC B106.

3.1.3 Geology

Geological studies were undertaken to confirm that the underlying geology of the Project site predominantly consists of Tertiary alluvium. A generalised rock and soil profile of the Project site, prepared for the EIS, is provided below in Table 13.

Table 13 Geotechnical Model of the Project Site

Unit		Sub-unit	
1	Surficial Soils and Pavement	1A	Topsoil/Fill
		1B	Anthropogenic Fill
		1C	Granular Fill
		1D	Cohesive Fill
		1E	Existing Pavement
2	Recent Alluvium	2A	Sand – not observed in Stage 2 investigations
		2B	Clay – not observed in Stage 2 investigations
3	Older Alluvium	3A	Sand
		3B	Clay
4	Shale	4A	Residual Shale Soil
		4B	Extremely Low to Low Strength Shale
		4C	Shale of medium strength or higher
5	Sandstone	5A	Residual Sandstone Soil – not observed in Stage 2 investigations
		5B	Very Low to Low Strength Sandstone
		5C	Sandstone of medium strength or higher

The studies undertaken for the EIS revealed the following general geological characteristics of the Project site:

- Away from paved areas, materials generally comprise a layer of topsoil overlying fill, below which tertiary alluvial soils are underlain by residual soil
- Alluvial soils are present extensively across the site and have their greatest depth at the northern, southern and western flanks of the site. Thicker residual soil layers are encountered to the east and over the central portion of the site (i.e. towards the elevated central eastern portion of the Project site)

- The greater extents of alluvial soils are typically found over the lower lying portions of the site
- Bedrock is typically shale, which is underlain by sandstone; however, towards the south of the site, sandstone was encountered immediately below the soil.

3.1.4 Soils

The Penrith Soils Landscape Map (Soil Conservation Service of NSW, 1989) indicates that the soils within the Project site are of the Berkshire Park Group. These are soils generally produced upon alluvial landscapes, commonly on elevated Tertiary terraces. They are comprised of shallow clayey sand soils, with frequent ironstone nodules. These soils typically are very prone to wind, sheet and rill erosion if exposed.

A topsoil layer is present across most areas of the Project site where pavements or structures are not present. The topsoil has a recorded thickness varying from 0 to 0.4 m but was typically 0.1 m thick. The topsoil is typically underlain by fill, but in some locations has developed naturally above alluvial or residual soils. The topsoil encountered was typically dry, fine to medium-grained silty sand with fine to medium sub-angular igneous gravel. However, some topsoil of a dominantly clay composition was encountered. Isolated occurrences of man-made waste materials, such as plastic bags and brick, were identified in topsoil.

The majority of fill encountered beneath the topsoil was granular and was typically a dry, silty sand. Where cohesive fill was encountered it was typically a medium to high plasticity clay, dry of the plastic limit and is inferred to have likely been re-worked site won material. The fill layer typically extends to depths of 0.3 to 0.5 m. Where investigations extended beneath the Unit 1 fills (as described in Table 13), older alluvial soils were typically encountered. The thickness of alluvium recorded varied significantly between locations with the deepest layers occurring at the northern, western and southern flanks of the site. At the northern and southern extent of the Project site, the thickness of alluvium was approximately 20 m with a maximum depth of up to 23 m. The depth of alluvium recorded reduced to approximately 5 m within the central portion of the Project site and less than 1 m thick at the eastern fringe. The alluvium is typically high plasticity clay with some granular and lower plasticity zones, particularly at the southern extent of the site. The alluvial clay contains ironstone nodules and is typically very stiff or hard consistency.

The soils throughout the Project site are generally classed as Type F soils which are fine grained and require a relatively long residence time in sediment basins to achieve the total suspended solids (TSS) concentrations suitable for discharge off the Project site.

3.1.5 Acid Sulfate Soils

Given that regional trends indicate an extremely low to low likelihood of Acid Sulfate Soils (ASS) and site investigations reviewed to date have not identified ASS, the overall risk of ASS occurring on site is considered negligible.

3.1.6 Groundwater

Two main aquifer systems are present across the MPE site, a perched system within alluvial soils and a deeper aquifer within the bedrock. Groundwater in the shallow alluvial aquifer is expected to flow towards the Georges River. Groundwater is typically present at approximately 4m to 7m below the existing ground levels across the majority of the Project site with the exception of the region in the south-east of the Project site, near Anzac Creek where groundwater was identified at depths greater than 1.5 m.

Groundwater within the deeper aquifer would vary depending on bedrock characteristics. Ashfield Shale has a very low rock mass permeability and may act as an aquitard (barrier to groundwater flow). This unit has the potential to reduce the infiltration of groundwater into the underlying sandstone, although some groundwater may flow within this unit through joints or faults. Groundwater in the Shale unit is typically saline and hard, with salinity levels up to 3100 mg/L having been recorded in the region.

Hawkesbury Sandstone generally has a low rock mass permeability with groundwater flow generally controlled by joints, faults and bedding partings. High permeability is also likely along near-vertical dykes, sheared zones or open joints at relatively low cover below valleys and/or paleo channels. Groundwater in

sandstone is generally of reasonable quality typically being mildly acidic with high iron content and salinity: between 200 to 2000 mg/L.

3.1.7 Contamination

A Site Audit Statement and Site Audit Report developed by JBS&G in September 2016 certified that the MPE site was suitable for commercial/industrial use and that further contamination investigations (i.e. a Phase 2 contamination assessment) were not required. The report noted that construction works on the MPE site should be undertaken in accordance with the Environmental Management Plan (EMP) developed for the site (GHD, 2016), including procedures to control exposure to potential human health and environmental receptors from residual contaminated soil, asbestos containing material and potential UXO. Please refer to the MPE Stage 2 Contamination Management Plan (CMP) for more information regarding contamination management during construction of the Project.

3.1.8 Rainfall Patterns

Based on historical data recorded since 1968 at Bankstown Airport (Hyder 2015), the region is characterised by moderate rainfall, with a mean annual rainfall of 870 millimetres (mm), and an annual rainfall range between 493 mm and 1,398 mm. There is significant variation in monthly rainfall throughout the year, with the summer and autumn months typically experiencing higher falls than the remainder of the year. Rainfall data also shows that February is the wettest month with a mean rainfall of 108.5 mm over 11.0 rain days.

Table 14 contains the intensity, frequency and duration (IFD) chart for the Moorebank site, showing the rainfall depth for durations, exceedance per Year (EY), and Annual Exceedance Probabilities (AEP).

Table 14 IFD Design Rainfall Depth (mm) from Bureau of Meteorology

Duration	Annual Exceedance Probability (AEP)						
	63.2%	50% [#]	20% [*]	10%	5%	2%	1%
1 min	1.98	2.21	2.92	3.40	3.87	4.49	4.96
2 min	3.19	3.51	4.53	5.26	5.98	6.91	7.64
3 min	4.45	4.91	6.38	7.41	8.42	9.74	10.8
4 min	5.63	6.23	8.14	9.46	10.8	12.5	13.8
5 min	6.69	7.42	9.75	11.3	12.9	15.0	16.6
10 min	10.7	11.9	15.9	18.5	21.1	24.4	27.0
15 min	13.3	14.9	19.8	23.1	26.3	30.6	33.8
30 min	18.0	20.1	26.6	30.9	35.2	40.9	45.2
1 hour	22.9	25.4	33.3	38.8	44.1	51.3	56.9
2 hour	28.8	31.8	41.5	48.3	55.2	64.5	71.8
3 hour	33.3	36.7	48.0	56.0	64.1	75.2	84.0
6 hour	43.6	48.4	64.2	75.4	86.9	103	116
12 hour	58.7	66.0	89.9	107	124	148	167

Duration	Annual Exceedance Probability (AEP)						
	63.2%	50% [#]	20% [*]	10%	5%	2%	1%
24 hour	78.9	90.2	127	153	180	215	243
48 hour	102	118	171	209	247	295	332
72 hour	114	133	194	238	282	336	378
96 hour	122	142	207	253	301	358	401
120 hour	127	148	214	261	310	368	412
144 hour	131	152	218	265	313	373	417
168 hour	134	155	220	266	314	374	419

Note:

The 50% AEP IFD does not correspond to the 2 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 1.44 ARI.

* The 20% AEP IFD does not correspond to the 5 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 4.48 ARI.

3.1.9 Flooding

Existing flooding risk along Anzac Creek corridor has been previously identified by Liverpool City Council through a floodplain risk management study (BTM WBM, 2008). Anzac Creek is a small tributary of the Georges River, which flows to the north, discharging to the Georges River approximately 2.5 km to the north-east of the Site.

Modelling for the study identified that upstream of the M5 Motorway flooding for events up to the 100-year ARI is generally confined to the main channel of Anzac Creek, resulting in very little floodplain inundation and no inundation of residential properties within the suburb of Wattle Grove (located adjacent to Anzac Creek).

Flood modelling commissioned by Liverpool City Council (BTM WBM, 2008) indicates that the 100-year ARI and larger events along Anzac Creek would impact on the Project site. However, existing culverts beneath the M5 Motorway could adequately convey flood waters to the downstream reaches of the catchment without significant retention and/or backwater accumulation impacting the Project site. This modelling indicates that there is limited potential impact for flooding to the delineated Construction Works area, as shown in Figure 3-3. The management of flood risk is detailed in the Flood Emergency Response Plan (FERP).

Construction Soil and Water Management Plan

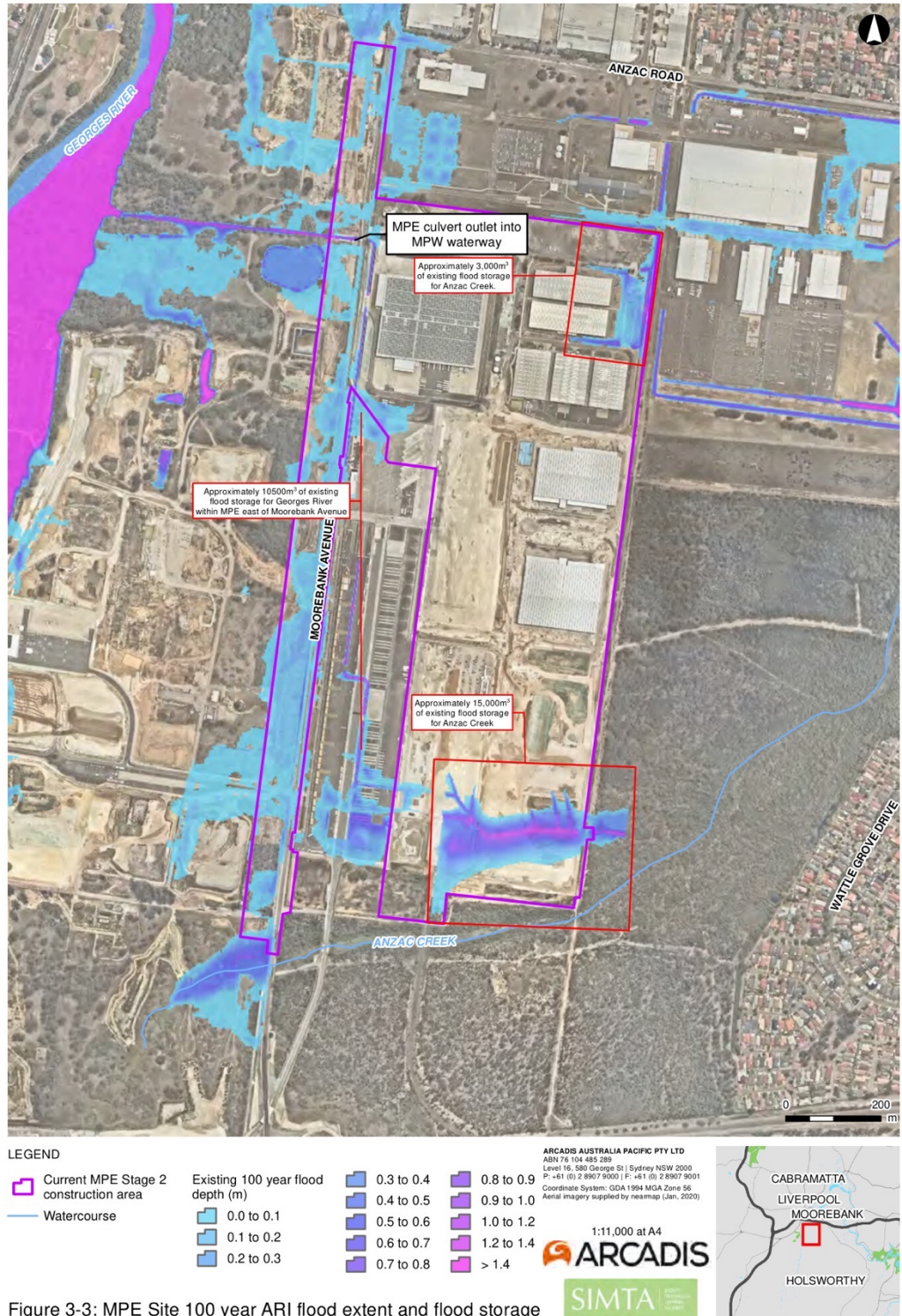


Figure 3-3 MPE Site 100 Year ARI Flood Extent and Flood Storage

3.2 Aspects, Impacts and Risks

3.2.1 EIS Identified Impacts

3.2.1.1 Stormwater Quantity

The removal of existing stormwater management structures during construction, such as pipes and open-lined channels, may result in the increase of surface flow volumes and velocities across the site. This in turn has the potential to increase the mobilisation of debris and sediment offsite, which can degrade surrounding terrestrial and aquatic habitat, and contribute to increased erosion, surface scouring, and scouring of water channels. In accordance with CoC B34(h), Figure 3-4 shows stormwater infrastructure that will be decommissioned and retained throughout construction, which will include the removal of all stormwater infrastructure within the construction footprint.

DRAINS software was used during the Project EIS to generate rainfall runoff models that represent existing and the post development stormwater conditions (additional detail regarding the modelling undertaken and additional results is included in EIS Appendix P). A summary of peak flows discharging from the Project site for the existing and post development conditions is included in Table 15 and demonstrates that peak discharge from the site will be reduced or maintained for all storm events other than the PMF.

Table 15 Existing and Future (with Project) Peak Flows

Discharge Location	Catchment Area (ha)	Flow (m ³ /s)					
		Existing			Post Development [#]		
		5yr ARI	100yr ARI	PMF	5yr ARI	100yr ARI	PMF
Outlet A (Greenhills Road North)	21.76	3.4	4.1	23	1.6 ^{##}	2.0 ^{##}	44 ^{##}
Outlet B (Greenhills Road South)	27.45	0.5	3.0	15	0.3	1.8	21
Outlet C (downstream of Moorebank Ave)	59.95	6.9	12.9	75	4.7	6.6	120

[#] The tabulated peak flows are not a comparison of storm to storm durations; for a comparison please refer to Appendix P of the EIS

^{##} From RtS (Appendix E)

As discussed in Section 3.1.1, there is adequate capacity in the stormwater infrastructure on adjacent sites that currently receive stormwater from the MPE site. The EIS Stormwater and Flooding assessment (refer to Appendix P of the EIS) and updated within the RtS, concluded that the proposed drainage systems and OSDs would provide adequate system capacities and mitigate potential adverse flood impacts that may otherwise result from the Project. As such, improvements to the condition of existing drainage infrastructure on the DJLU site, downstream of the MPE site are not considered necessary as part of the Project and will not be undertaken under the Project approval.

It is noted that the existing drop structure within the channel on the MPW site that Outlet C reports to has failed resulting in major scouring. While the Project will not result in an increase in peak flows up to the 100 year ARI event and the stream erosion index is within acceptable limits at the point of discharge from the MPE site, it is proposed to undertake rehabilitation works on the MPW site to prevent further scour. A dilapidation survey will be undertaken of the channel on the MPW site and works to repair the damaged drop

structure will be undertaken. Works may include relining of the concrete channel and repair of the drop structure.

Additionally, the culverts under Greenhills Road that Outlet C report to are to be upgraded and scour protection to be provided on the downstream side. The upgrade of the culverts is required to allow for a free flowing orifice from OSD 2. While the stream erosion index is within acceptable limits and the peak flows from the Project are less than the existing, scour protection will be provided to ensure the stability of the outlet.

3.2.1.2 Stormwater Quality

Bulk earthworks and vegetation clearing activities during construction of the Project, if not managed properly, have the potential to contribute to increased mobilisation of soil from the MPE site into nearby waterways or lands, resulting in a decrease in the quality of nearby waterways.

More specifically, processes with potential to impact the water quality of surrounding waterways associated with Project construction, predominantly associated with ground disturbance, include:

- Alteration of the topography and associated water catchment areas of the Proposal site
- Changing of the soil profile on site to expose potentially more reactive soils
- Removal or modification of existing drainage, retention or diversion structures
- Transport of noxious weeds
- Alteration or removal of drainage pathways across the construction area
- Spills or leaks of substances such as oil, hydraulic fluids and fuels.

Stormwater flows through the construction areas will be directed to sediment basins (see further detail in Section 3.3.2 and discharge procedure outlined in the CESC) prior to discharge from site.

3.2.1.3 Flooding

Construction of the Proposal, particularly through the adjustment of Project site building formation levels, would have the potential to cause flooding impacts on surrounding properties during a significant rainfall event, in the absence of flood management measures. Flood risk to nearby properties and to the site itself may occur through the failure of existing or temporary water containment measures, or through a rainfall event exceeding that for which the controls for construction activities were designed to protect flood related impacts. Figure 3-3 shows the location and extent of existing 100 year ARI flood depths and demonstrates that there is limited flood storage within the Project site.

Modelling undertaken for the Project demonstrated that potential adverse flood impacts have been adequately mitigated along the Anzac Creek floodplain, up to 100 year events, as shown in Figure 3-5. Construction of the on-site detention basins that would mitigate potential flooding impacts would be undertaken early in the construction program to mitigate flooding impacts during construction and operation of the Project.

3.2.2 Construction Impacts

Key construction activities and the associated potential sources of erosion, sedimentation and water pollution related to the Project are described in Table 16 and the aspects and impacts register in the CEMP. Cumulative stormwater and flooding impacts associated with the construction of the Project are discussed in Section 3.3.

In accordance with B34(m), appropriate erosion and sediment control measures will ensure no on site water will drain towards the biodiversity offset areas without treatment. Management measures in this area will focus on erosion control to minimise the mobilisation of sediments. The Primary Erosion and Sediment Control Drawings included within the CESC (Appendix A demonstrates how stormwater flows to the biodiversity offset area will be managed).

Management measures to address identified risks are included in Section 3.4.

Construction Soil and Water Management Plan

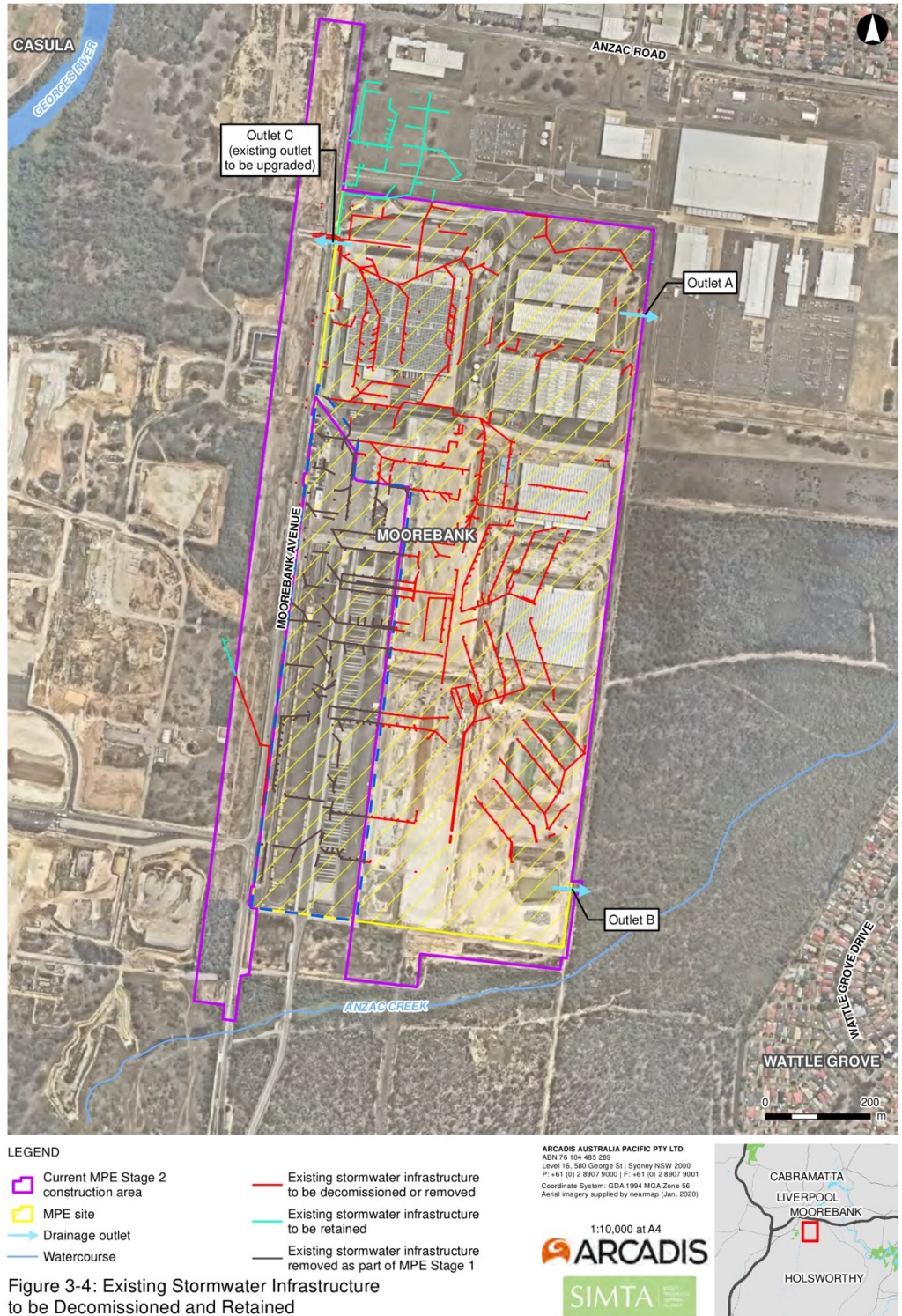


Figure 3-4 Existing Stormwater Infrastructure to be Decommissioned and Retained

Construction Soil and Water Management Plan

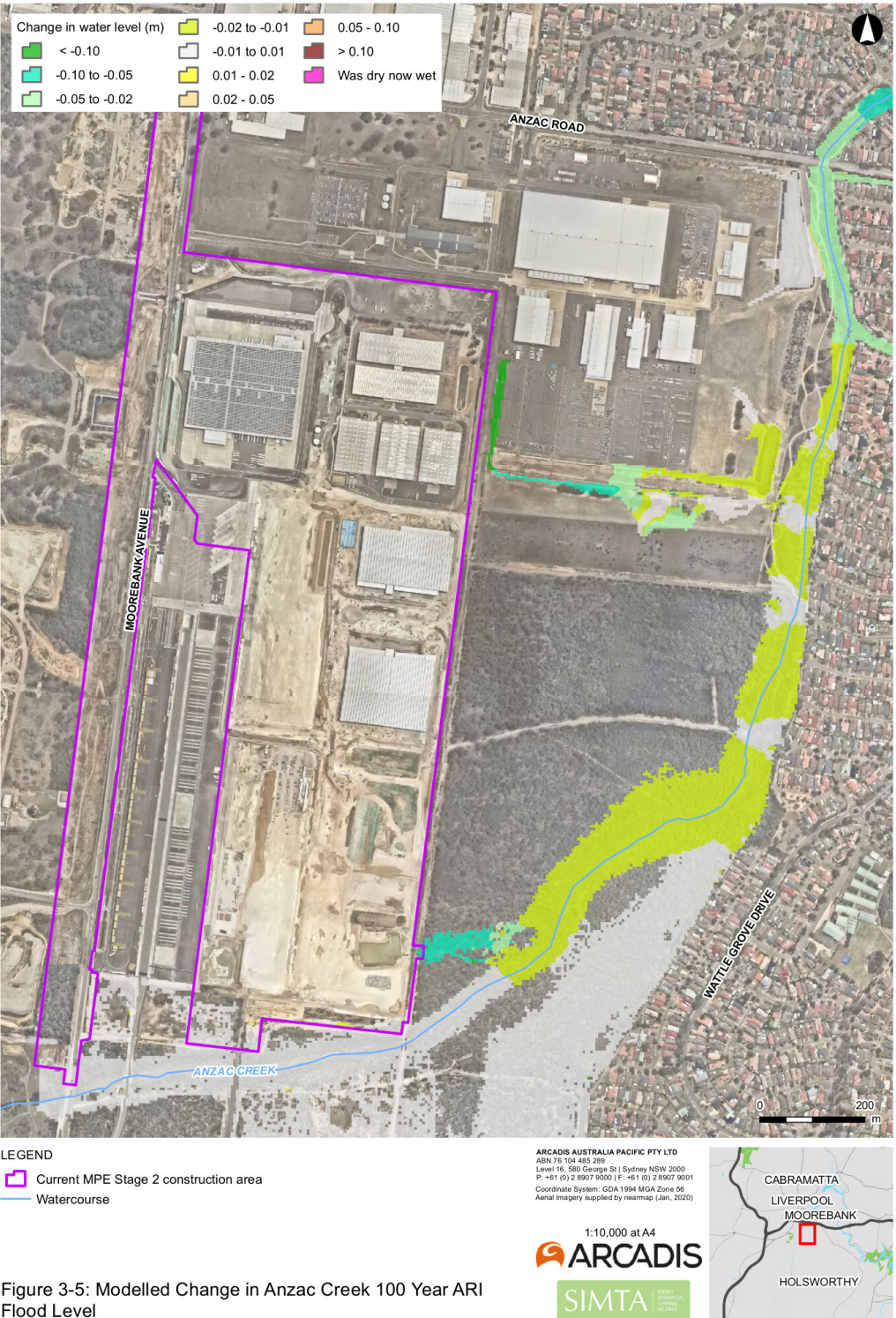


Figure 3-5: Modelled Change in Anzac Creek 100 Year ARI Flood Level

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Figure 3-5 Modelling Change in Anzac Creek 100 Year ARI Flood Level

Table 16 Potential Construction Impacts to Soil and Water during Construction

Construction Activity	Description of Potential Impact
Demolition / remediation	Removal and offsite disposal of unsuitable materials, if uncontrolled, could potentially result in: <ul style="list-style-type: none"> Sedimentation of waterways and degradation of water quality Mobilisation of sediment and potential pollution of waterways.
Concrete batching	Generation of dirty water onsite, potentially resulting in: <ul style="list-style-type: none"> Degradation of water quality to nearby waterways
Earthworks (excavation and placement of fill)	Filling of the site resulting in loss of flood storage and increased flood risk. Increased mobilisation of sediment, potentially resulting in: <ul style="list-style-type: none"> Sedimentation of waterways and degradation of water quality Soil loss Damage to surrounding flora and fauna habitat.
Stockpiling materials (topsoil, mulch and fill)	<ul style="list-style-type: none"> Increased mobilisation of sediment Release of tannins to waterways Soil loss Damage to surrounding flora and fauna habitat.
Vegetation clearing	Increased soil exposure, potentially resulting in: <ul style="list-style-type: none"> Sedimentation of waterways and degradation of water quality Increase surface flow runoff
Movement of vehicles, plant and equipment	Increased materials tracking and sediment mobilisation, potentially resulting in: <ul style="list-style-type: none"> Soil loss Sedimentation of waterways and degradation of water quality Potential oil spillages from use of plant and equipment Damage to nearby flora and fauna habitat.
Pavement construction	Installation of pavement could result in: <ul style="list-style-type: none"> Increased surface run-off and turbidity of waterways.
Warehousing and freight village construction	Construction of warehousing and the freight village could result in: <ul style="list-style-type: none"> Increased surface run-off and turbidity of waterways.
Finishing works (landscaping)	Installation of landscape planting would provide additional ground cover to areas within and surrounding the site, result in: <ul style="list-style-type: none"> Improved bio-filtration of surface flows, improving water quality of nearby waterways. Reduced exposure of soils and risk of erosion.

3.3 Cumulative Impacts

Assessment of potential cumulative stormwater and flooding impacts was undertaken as part of the EIS preparation (Refer to Section 19 of the EIS).

As both the MPE and MPW sites were already previously developed, it was considered unlikely that construction would result in a change to the overall erosion and sedimentation across the sites. The stormwater controls identified for the Project are expected to be replicated at the MPW site, and the implementation of these controls would reduce the risk of exposed surface sediments being mobilised and deposited in riparian habitats or watercourses during construction and operation phases of the two developments.

Both the MPE and MPW Projects are required to maintain stormwater controls during construction and operation in accordance with local, State and Federal regulations. The cumulative impacts of the Project are considered to be negligible as stormwater is required to be managed appropriately and management measures (see Section 3.4 and Table 17) will be implemented during construction of both sites.

3.4 Management Measures

This section describes the overall approach to managing and mitigating risks to soil and water during construction of the Project. The management measures in Table 17 are based on the FCMMs, provided as part of the RtS report, and the CoCs, as well as the requirements and standards of SIMTA, the Construction Contractor and industry practice.

3.4.1 Erosion Control

Erosion occurs where land cover is disturbed and /or water is artificially concentrated, leading to the transport of sediment off site. Diversion of clean water flows around disturbed areas minimises the risk of erosion and therefore reduced water quality impact. The ESC Drawings included in Appendix A to this CSWMP show how stormwater will be diverted around the Project site during construction.

Erosion control is the first priority of any erosion and sediment control strategy. Effective and practical erosion control can be achieved through:

- Limiting the area of disturbance and implementing progressive stabilisation to limit the time of disturbance and exposure to erosion potential
- Integrating measures that reduce the volume of water moving over exposed surfaces. These include the diversion of non-site water around the site and the adoption of measures within the Construction area to minimise the size of local catchments and transfer clean water via a stabilised channel (e.g. pipe or lined channel) to stabilised outlets
- Utilising measures that slow the movement of water over exposed areas to velocities which do not lead to scour of the surface. This may be achieved by creating flat gradients, introducing roughness or installing flow checking measures within channels / on slopes
- Providing additional protection, cover or stability to exposed surfaces so that it is less readily eroded. Options include, spray on stabilisers, mulches, blankets temporary vegetation and permanent progressive landscaping.

These approaches should be included in the planning phases for each work activity and integrated with the works at each site.

In areas close to sensitive environment (e.g. the Bootland to the south of the MPE site) or where there is a lack of available space for sediment control (i.e. sediment basins), temporary and immediate protection will be prioritised through ground cover methods such as polymer, geotextile fabric or plastic or temporary landscaping.

Areas that are not required to be exposed will be protected using site mulch, temporary vegetation cover or a soil-binding agent to keep the areas exposed to erosion to a minimum. Requirements for protection will be detailed within the progressive ESC Drawings as works are progressively completed.

3.4.2 Sediment Management

Sediment control should be viewed as secondary to erosion control in minimising ground and surface water pollution resulting from construction. The sediment basins have been sized and located to ensure sediment concentrations in site runoff are within acceptable limits. Preliminary basin sizes have been calculated in accordance with the Blue Book and are based on Berkshire Park Group soils ('Type F'). These soils are fine grained and require a relatively long residence time to allow settling.

The sediment basins have generally been located within the lowest point of each catchment boundary to allow water to drain to the basins and are designed to capture any flows that may discharge to the Georges River, Anzac Creek and through the biodiversity offset area. Sediment basins for 'Type F' soils are typically wet basins which are pumped out following a rainfall event once discharge criteria have been achieved (refer to Table 17 for discharge criteria). Further detail on the management and maintenance of sediment basins is included in the CЕСCP (Appendix A). Sediment basins will remain online until there is 80% groundcover in upstream catchments, at which point, a determination will be made (by the Principal's Representative and Contractor's PM and EM) as to whether the sediment basin can be decommissioned and On-Site Detention basins can be utilised for operational stormwater management. This is further detailed in the Stormwater Management Plan. Rainwater gardens installed for the OSDs during construction will be maintained throughout the remainder of construction and into operations.

Other measures for sediment control will include:

- Use of sandbags, sediment fences or mulch bunds along work area perimeters
- Sweeping of hardstand areas
- Use of inlet traps and inlet protections at existing drainage structures
- Temporary sediment traps
- Stabilised site entries
- Vehicle wash-down bays and / or rumble grids
- Contour controls.

3.4.3 Stockpile Stabilisation

Stockpile stabilisation will be required for any imported spoil that will be subject to stockpiling within the site for more than a 10 day period without being worked on. Stabilisation requirements will be dependent on the type of material stockpiled as outlined below:

- Coarse grained stockpiles will incorporate rock armouring
- Less coarse grained stockpiles or stockpiles that have a significant component of fines will require slope stabilisation which may include the following:
 - Application of a polymer to bind material together
 - Application of hydro-seed or hydromulch
 - Covering batters with mulch to provide ground cover
 - Mulch must not be used within 40m of a waterway to minimise the potential for tannins entering the water system. This is a medium-term temporary solution where batters are not to be disturbed.
 - Covering batters with geofabric
 - Use of a simple sprinkler system for temporary stockpiles, including use of radiating sprinkler nozzles to maintain fine spray over exposed surfaces.
 - Other options identified by the Construction Contractor.

3.4.4 Hazardous Materials

Hazardous materials may be transported to and used on the Project site to facilitate construction.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) links the permissibility of an industrial development proposal to its safety and environmental performance. SEPP 33 is appropriate for the operation phase of the Project, however, threshold values for Dangerous Goods will be considered as standard good practice.

The *Pollution Incidence Response Management Plan* (PIRMP), required under the *Protection of the Environment Operations Act 1997* (POEO Act), sets out the procedure for managing and reporting on the threshold values of pollutants stored on site. In accordance with the PIRMP each contractor will be required to provide the following information to SIMTA:

- Types of potential pollutants to be used
- Maximum quantity to be stored or held on site
- Storage locations (GPS coordinates)
- Storage methods (description and photos)
- Current Material Safety Data Sheet (MSDS), handling methods required, personal protective equipment for handling, emission control equipment and personal protective equipment to be used in the event of a spill
- Spill clean up method(s).

Condition O4 of the Moorebank EPL requires the project to handle and store chemicals, fuels and explosives in accordance with relevant Australian Standard and legislative conditions. These requirements are captured in the PIRMP.

An Incident Response procedure is outlined in Section 2.8.1 of the CEMP and is to be referenced for all environmental incidents that occur at the Project site.

3.4.5 Management Measures

The management measures in Table 17 are based on the FCMMs, provided as part of the consolidated assessment clarification responses, and the CoC, as well as the requirements and standards of SIMTA, the Construction Contractor and best practice.

Table 17 Management Measures

ID	Management Measure	Timing	Responsibility	Reference
General				
SW1	Install all ERSED controls in accordance with the Construction Erosion and Sediment Control Plan (CESCP), included in Appendix A of this plan prior to commencement of works within the MPE Stage 2 construction boundary. No works to be undertaken, within DJLU.	Construction	Contractor's EM Site Supervisor	CoC B34 and B39 MPE C'th CoA 2B MPE CMM (Hydrology)
SW2	All personnel to participate in induction prior to commencing works on site.	Construction	Contractor's EM Site Supervisor	Best practice
Site Access				
SW3	All site access points to the construction area are to be stabilised in accordance with SD 6-14 (refer to Appendix A) to minimise mud tracking and dust generation. Exit points will include installation of wheel wash or rumble grid systems.	Construction	Contractor's CM	CoC B36 FCMM 5A
SW4	Construction traffic will be restricted to delineated access tracks to minimise mud tracking and dust generation, which will be maintained until the completion of construction.	Construction	Contractor's CM Contractor's EM	CoC B34 and B39 MPE CMM (Hydrology) FCMM 5A
SW5	All access areas throughout the Project site will be: <ul style="list-style-type: none"> Positioned to protect existing vegetation and downstream areas, while being considerate of the needs of efficient works activities. Limited to a maximum width of 10 m. 	Construction	Contractor's CM Contractor's EM	CoC B34 and B39 MPE CMM (Hydrology)
Site Preparation				
SW6	Implement appropriate ERSED controls for each section of works in accordance with relevant CESCP, prior to the commencement of any clearing, stripping or earthworks.	Construction	Contractor's EM	CoC B34 and B39

ID	Management Measure	Timing	Responsibility	Reference
SW7	All appropriate erosion and sediment controls will be implemented prior to soil disturbance within relevant phases of construction. Water carts will be made available to provide dust suppression for exposed areas.	Construction	Contractor's EM	FCMM 5A
SW8	Delineate vegetation clearing boundaries, sensitive areas and vegetation within vicinity of the construction footprint that is to be retained, using high visibility barrier tape (or equivalent) prior to construction, clearing or stripping works commencing, as per construction plans.	Pre-clearing Construction	Contractor's CM Site Supervisor	CoC B34 and B39 CFFMP
SW9	Ancillary site features (e.g. site offices, construction stockpile locations and equipment laydown areas) and hazardous materials will be located within existing cleared/disturbed areas. These features will be located above an appropriate design flood level and outside of flow paths where possible.	Construction	Contractor's CM	CoC B34 and B39 MPW C'th CoA 9 b)
SW10	Pre-start checks, as well as maintenance in accordance with manufacturers requirements, will be undertaken on plant and equipment to minimise potential for leaks and spills from vehicles.	Construction	Contractor's EM	SIMTA Standard Operating Procedures CoC A32 MPW C'th CoA 9 b)
Erosion and Sediment Control				
SW11	Update the ESCP to reflect the changing nature of the site as the construction works progress. ESCPs will be prepared by the Construction Contractor, reviewed by the Contractor's EM and issued to the Principal's Representative in accordance with the document control procedure outlined in the CEMP to ensure their currency and relevance to current physical works being undertaken.	Construction	Contractor's EM	CoC B34 and B39
SW12	Install hydraulic structures and controls (i.e. clean and dirty water diversion drains/bunds, pipes, swales and culverts) as early as practicable in the construction program. Temporary diversion channels around temporary work obstructions will be established for low to normal flows to bypass work areas.	Construction	Contractor's EM	CoC B34 and B39 MPW C'th CoA 9 c)
SW13	Sediment fences, bund walls and diversion drains will be located around suitable areas of the site, as indicated in primary ESCP drawings, to assist in preventing untreated runoff from leaving the site and to minimise sediment migration into drainage channels, sediment basins and waterways.	Construction	Contractor's EM Site Supervisor	CoC B34 and B39 RSOC (Stormwater and Flooding) MPE C'th CoA 2B

ID	Management Measure	Timing	Responsibility	Reference
				MPE CMM (Hydrology)
SW14	Protect exposed batters and disturbed surfaces through progressive revegetation methods, and through application of temporary Reinforced Erosion Control Products (RECPs) where practical (e.g. geotextile fabric, polymers, cover crop, plastic sheeting etc.).	Construction	Contractor's EM	CoC B34 and B39
SW15	Reduce slope lengths to slow runoff flow velocities and enable coarse sediment to settle through use of check dams. These can be built with various materials, including rocks, logs and sandbags (refer to SD 5-4 for Rock Check Dam, refer to Appendix A). Maintenance program to ensure that check dam and channel integrity is maintained throughout the site.	Construction	Contractor's CM Contractor's EM	CoC B34 and B39
SW16	Place sandbag or sediment socks around stormwater pits prior to decommissioning the stormwater pit.	Construction	Contractor's EM	CoC B34 and B39
SW17	Site mulch, temporary vegetation cover or soil-binding agents will be used to minimise areas exposed to erosion.	Construction	Site Supervisor Contractor's EM	Best practice
SW18	Pre-treatment measures will be incorporated into the ESCPs developed by the Construction Contractor, including buffer strips and gross pollutant traps where deemed appropriate.	Design Construction	Design Manager	FCMM 5D MPE CMM (Hydrology) MPW C'th CoA 9 c)
SW19	Conversion of any construction stage sediment and erosion control measures into permanent stormwater quality treatment elements will only occur once the civil works (roads and drainage) has been completed, for the site to ensure the treatment measure is not compromised by sediment runoff.	Construction	Site Supervisor Contractor's EM	CoC B45
Ground Disturbance				
SW20	Stabilisation / revegetation of disturbed areas is to be undertaken as soon as practicable (in accordance with contractual requirements) progressively throughout the phased works to minimise disturbed areas exposed to the forces of erosion at any one time.	Construction	Contractor's CM	CoC B34 and B39
SW21	Minimise the extent of clearing as much as possible, and do not undertake vegetation clearing during overland flow events	Construction	Contractor's CM	CoC B34 and B39

ID	Management Measure	Timing	Responsibility	Reference
				MPE CMM (Hydrology)
SW22	Phase works where practicable to minimise the amount of exposed ground at any one time.	Construction	Contractor's CM	CoC B34 and B39
SW23	Ensure all ERSED control measures are kept in a properly functioning condition until all site disturbance works are completed and the site is rehabilitated.	Construction	Contractor's CM	CoC B34 and B39
SW24	Revegetation activities will be monitored during weekly environment and sustainability inspections. Where revegetation activities are unsuccessful, potential reasons for failure are to be investigated, and appropriate, remedial actions are to be undertaken (e.g. replacement of any lost topsoil and re-sowing of the revegetation site).	Construction	Contractor's EM	CoC B34 and B39 RSoC (Stormwater and Flooding)
Construction and Operation of Sediment Basins				
SW25	Construction sediment basins will be sited near the locations of the operational onsite detention basins for the duration of the Project.	Construction	Design Manager	N/A
SW26	Where deemed appropriate by the Contractor's EM during development of Progressive ESC drawings, temporary construction sedimentation basins are to be constructed. Temporary construction sedimentation basins will be incorporated into the progressive ESC Drawings and include details on location, size, access, maintenance and construction material. The design of temporary construction sedimentation basins will be based on erosion hazard assessment and annual soil loss calculations.	Construction	Contractor's CM	CoC B39 FCMM 5H
Topsoil and Stockpile Management				
SW27	Topsoil will be stockpiled to a maximum height of 2 m in accordance with this plan and the Construction Spoil Management Plan (CSMP). Topsoil will be reused on site or within the vicinity of the site., Topsoil is to be stripped when moist (not wet or dry) and stripped separately from underlying subsoils. In addition, where practicable subsoils are not to be worked when wet.	Construction	Contractor's CM	CoC B36
SW28	Volumes of topsoil stripped, stockpiled and reused will be reported in accordance with the requirements of the Principal's Representative Project Requirements / Sustainability Management Plan.	Construction	Contractor's CM	CoC B36

ID	Management Measure	Timing	Responsibility	Reference
SW29	Stockpiles will be located at least 5 m outside the dripline of existing vegetation, concentrated water flows, roads and other hazardous areas.	Construction	Contractor's EM Site Supervisor	CoC B34 and B39
SW30	Where practicable, stockpiles will be placed more than 50 m away from a waterway.	Construction	Contractor's EM	CoC B36
SW31	Where they are to remain <i>in situ</i> for a period longer than 10 days, topsoil stockpiles will be seeded with a grass/ legume or nitrogen fixing species (such as acacia) to assist erosion control and reduce loss of beneficial soil micro-organisms and nutrients. Where applicable, other stockpiles will be stabilised with vegetation, polymer, geofabric or plastic etc.	Construction	Contractor's CM	CoC B34 and B39 ISCA: Lan-2
SW32	Stockpiles will be located and managed in accordance with the Stockpile Management Protocol and the Construction Spoil Management Plan.	Construction	Contractor's CM	CoC B34 and B39 ISCA: Lan-2
SW33	Total volume of spoil to be imported during construction, including early works, will not exceed 600,000 m ³ . An additional 250,000 m ³ of suitable spoil that is separate to the 600,000 m ³ of general fill will be imported. All spoil material received on the Project site will be handled in accordance with the CSMP. The Site Supervisor will be responsible for reporting the daily volumes of fill transported to the site (no more than 22,000 m ³) and reporting these to the Contractor's CM and the Principal's Representative. The Contractor's CM will report the total volume of fill imported and ensure the amount does not exceed 600,000 m ³ for construction.	Construction	Contractor's EM Site Supervisor Contractor's CM	CoC A6 'Construction' definition
Site Drainage				
SW34	Maximise the separation of 'clean' water (offsite) and 'dirty' (onsite) water. Site boundary controls (e.g. sediment fencing, earth banks, mulch bunds, swales and table/diversion drains) around the perimeter of the site, will be implemented as early in the construction process as possible, and as approved by the Design Manager	Construction	Design Manager Contractor's CM	CoC B34 and B39 RsoC (Stormwater and Flooding) MPE CMM (Hydrology)
SW35	All drains will be constructed with a circular, trapezoidal or parabolic cross-section,	Construction	Contractor's CM	CoC B34 and B39 RsoC (Stormwater and Flooding)

ID	Management Measure	Timing	Responsibility	Reference
SW36	All 'clean' and 'dirty' water diversion drains must be stabilised to minimise channel erosion. 'Clean' water will be discharged to stabilised areas via level spreaders. 'Dirty' water will be diverted to construction sedimentation basins for settling, testing and treatment (if required).	Construction	Contractor's CM	CoC B34 and B39 RsoC (Stormwater and Flooding) MPE CMM (Hydrology)
SW37	Formation runoff will be diverted into inlet pits and the stormwater drainage system as soon as practicable to reduce surface flow lengths and avoid/minimise erosion.	Construction	Contractor's EM	CoC B34 and B39 RsoC (Stormwater and Flooding) MPE CMM (Hydrology)
SW38	Where practicable, construct inlet pits to link to subsurface drainage progressively across the site as construction is completed. Ensure sediment controls are installed upslope of inlet pits until upslope areas are stabilised and not generating sediment laden runoff.	Construction	Contractor's CM Contractor's EM	CoC B34 and B39
SW39	Bio-retention systems, including raingardens and bioswales, will be included in progressive ESC Drawings developed by the Construction Contractor once civil works have been completed for the site and it has been determined by the Contractor's EM that the treatment measures would not be compromised by sediment run off, i.e. at least 80% groundcover in upstream catchments. These structures are to be designed to assist in achieving pollution reduction targets set out within the Liverpool DCP and the Stormwater Management Plan.	Design Construction	Design Manager Contractor's EM	CoC B45 MPE CMM (Hydrology)
SW40	A dilapidation survey will be undertaken of the stormwater channel on the MPW site and the channel will be repaired to prevent further scour. Works to repair the channel will include a rainwater garden as detailed within the Stormwater Management Plan.	Construction	Design Manager Contractor's EM	CoC B34(j)
Tannin Management				
SW41	Mulch and retain weed-free vegetation. Respread mulched vegetative material to provide soil stability on bare areas and particularly on those areas where landscape tree planting or bushland is to be established after works are complete. Mulch will not be used within 40m of a waterway to minimise the potential for tannins entering the water system.	Construction	Site Supervisor	Best practice

ID	Management Measure	Timing	Responsibility	Reference
Contamination and Spill Management				
SW42	Management of existing contamination onsite will be undertaken in accordance with the procedures outlined within the site audit statement prepared for the Project (by JBS&G, 2016), accompanying Environmental Management Plan (GHD, 2016) and Contamination Management Plan, included as Appendix N to the CEMP.	Construction	Contamination Consultant Contractor's CM Contractor's EM	CoC B138 MPW C'th CoA 9 b)
SW43	Concrete washout will occur within a designated lined and bunded area. Concrete washout will be undertaken at a minimum of 40m away from surface water features.	Construction	Site Supervisor Contractor's EM	MPW C'th CoA 9 b) Best practice
SW44	All spills will be promptly reported to the Contractor's EM. Spills will be managed in accordance with the Emergency Spill Response Procedure (refer to Appendix B) and the Environment Protection Manual for Authorised Officers: Bunding and Spill Management – technical bulletin (EPA, 1997).	Construction	Construction Personnel	MLP EPL No. 21054 CoC B113 MPW C'th CoA 9 b) SIMTA Standard Operating Procedures
SW45	Emergency spill clean-up kits will be maintained on-site in agreed locations that are accessible and known to all site workers. Spill kits will be used in the event of inadvertent spills of fuels, oils, hydraulic fluids and other hazardous wastes, to contain the spill and avoid contamination of waters. Workers will be trained in the use of spill kits.	Construction	Contamination Consultant Contractor's CM Contractor's EM	MLP EPL No. 21054 MPW C'th CoA 9 b) MPW C'th CoA 9 c) SIMTA Standard Operating Procedures
SW46	Fuels, oils, lubricants, chemicals and Dangerous Goods (as defined in the Australian Code for the Transport of Dangerous Goods by Road & Rail) and similar products will be stored in accordance with AS 1940-2004, within designated secondary containment areas (e.g. internally bunded shipping containers or purpose-built structures) and the NSW EPA's Storage and Handling of Liquids: Environmental Protection – Participants Handbook. Bulk storage areas for fuels, oils and chemicals used during construction will be contained within an impervious bund to retain any spills of more than 110% of the volume of the largest container in the bunded area	Construction	Contractor's EM	MLP EPL No. 21054 CoC B112 and B113 FCMM 5G MPW C'th CoA 9 b) MPW C'th CoA 9 c)

ID	Management Measure	Timing	Responsibility	Reference
SW47	Trade waste receptacles will be provided for the safe and efficient capture and storage of all construction and miscellaneous wastes (including oily wastes). Recyclable materials will be separated and recycled where possible. Otherwise, disposable wastes will be removed from site regularly and disposed of at a licensed waste facility. Further information regarding waste separation and disposal procedures are provided within the Construction and Demolition Waste Management Plan (CDWMP), included as an appendix in the CEMP.	Construction	Contractor's EM	MLP EPL No. 21054 FCMM 5G MPW C'th CoA 9 b)
SW48	The quantities of Dangerous Goods present at the Site or transported from and to must be kept below the screening threshold quantities listed in the NSW Department of Planning, Industry and Environment's Hazardous and Offensive Development Guidelines Application Guidelines Applying SEPP 33 (January 2011).	Construction	Contractor's CM	CoC B112 and B114 MPW C'th CoA 9 b)
Water Quality, Dewatering and Discharge				
SW49	Water quality monitoring will be conducted monthly 100 m upstream and downstream of the Project site at nominated locations in Anzac Creek (locations to be confirmed based on the Baseline Monitoring Program prepared in accordance with CoC B106).	Construction	Contractor's EM	CoC B49 and C21
SW50	Surface waters will not be discharged to the receiving environment without a signed permit to discharge.	Construction	Contractor's EM	MPW C'th CoA 9 c) Best practice
SW51	Sediment basins will be tested, treated (if necessary) and discharged within 5 days of rainfall causing runoff once discharge criteria are satisfied (refer to Appendix A for the dewatering protocol).	Construction	Contractor's EM	MLP EPL No. 21054 Blue Book Best practice
SW52	Prior to discharge, water quality will be tested to demonstrate conformance and compliance, in accordance with the following dewatering discharge criteria, based on the Blue Book (Volume 2 Main Roads) and EPL requirements:		Construction	Contractor's EM Contractor's CM MLP EPL No. 21054 CoC B39 and B44 MPW C'th CoA 9 c)
	Analyte	Criteria		
	Total Suspended Solids (TSS)	50mg/L		
	pH	6.5-8.5		

ID	Management Measure	Timing	Responsibility	Reference
	Oil and Grease			
	Turbidity			
SW53	Records of dewatering activities will be maintained. Details will include: <ul style="list-style-type: none"> Date, time and estimated volume released at each discharge location Water quality test results for each discharge Personnel approving the dewatering activities Evidence of discharge monitoring, or risk assessment and mitigation measures used to eliminate the risks of pollution. 	Construction	Contractor's CM Contractor's EM Site Supervisor	CoC B39
SW54	Discharge of water and wastewater to land will be limited to dust suppression, owing to limitations on infiltration rates associated with clay soils underlying the site and groundwater salinity. Spray from wastewater application will be limited to areas that avoid spray drifting beyond the site boundary.	Construction	Site Supervisor Contractor's EM Contractor's CM	MLP EPL No. 21054 CoC B34 MPW C'th CoA 9 b)
Inspections, Records and Reporting				
SW55	Weather conditions and forecasts will be monitored daily and reported to the Site Supervisor to support appropriate planning for significant rain events.	Construction	Contractor's EM	CoC B34 and B39
SW56	Licensed water discharge locations will be clearly marked by signage that indicates the point identification number as close as practicable to the point, and will meet the requirements of the Project EPL.	Construction	Site Supervisor	MLP EPL No. 21054
SW57	Erosion and sediment controls will be inspected as follows: <ul style="list-style-type: none"> Daily in accordance with the Daily Inspection Checklist (refer to CЕСP) Weekly in accordance with the Weekly Inspection Checklist (refer to CЕСP) Within 24 hours of expected rainfall During rainfall Within 18 hours after a heavy rainfall event (i.e. one which results in the generation of runoff onsite) 	Construction	Contractor's CM Contractor's EM Site Supervisor	CoC B39 FCMM 5A RsoC (Stormwater and Flooding)

ID	Management Measure	Timing	Responsibility	Reference
	<ul style="list-style-type: none"> Prior to a Rostered Day Off (RDO), long weekends or other periods of extended closure. 			
Flood Mitigation				
SW58	In the event of flood impacts, implement the Flood Emergency Response Plan (FERP) emergency response procedures, emergency assembly point and evacuation routes, precautions and monitoring requirements.	Construction	Site Supervisor Contractor's EM Contractor's CM	FCMM 5C RsoC (Stormwater and Flooding)
SW59	On-site stormwater detention will be constructed as designed to achieve flood management in accordance with the flood modelling results outlined in the Flood Study and Stormwater Management report prepared by Hyder Consulting (Hyder Consulting, 2012a) and as updated within the Stormwater and Flooding Assessment (Hyder Consulting, 2012b).	Design Construction	Design Manager	MPE CMM (Hydrology) MPW C'th CoA 9 b)
Maintenance				
SW60	Permanent and temporary sediment control structures which become blocked or overloaded with sediments will be cleaned out using appropriate methods such as an excavator, backhoe or by manual means. Cleaning shall be performed prior to or when the accumulated sediment has reduced the capacity of the structure to less than 60%, based on a visual assessment.	Construction	Contractor's CM	CoC B39 RsoC (Stormwater and Flooding)
SW61	Refuelling and maintenance of mobile plant will be within a designated lined and bunded area. Refuelling and maintenance will be undertaken at a minimum of 50 m away from surface water features such as creeks, rivers, drains, swales, stormwater pit inlets etc. Plant nappies/drip trays will be utilised for all refuelling operations.	Construction	Contractor's EM	SIMTA Standard Operating Procedures MPW S1 REMM 9S MPW C'th CoA 9 b)
SW62	<p>Maintenance of sediment basins will be undertaken in accordance with the following procedure:</p> <ul style="list-style-type: none"> A marker will be installed inside the basin to mark the sediment storage capacity limit. Once this marker is reached and/or where there is a large build-up of sediment at the basin inlet, sediment will be removed. Sediment that is removed from basins will be temporarily stockpiled until suitable for reuse on site at locations as approved by the Contractor's EM, where it will not flow off site without proceeding through appropriate ERSed controls. The results of maintenance inspections shall be recorded on the Weekly Inspection checklist. 	Construction	Contractor's CM Contractor's EM Site Supervisor	SIMTA Standard Operating Procedure

ID	Management Measure	Timing	Responsibility	Reference
SW63	Erosion and sediment control devices will be maintained in good working order. Repairs and or maintenance will be undertaken as required, particularly following storm events.	Construction	Contractor's CM Contractor's EM Site Supervisor	SIMTA Standard Operating Procedure
Dust Control				
SW64	Refer to Early Work Air Quality Management Plan for specific management measures for dust. However, as a minimum, exposed areas will be watered regularly to minimise dust and water carts to be made readily available. Additional watering may be required on windy days.	Construction	Contractor's CM Contractor's EM	CoC B54 CoC B56

4 MONITORING AND REVIEW

4.1 Environmental Monitoring

4.1.1 Baseline Monitoring

Water quality monitoring has been undertaken in accordance with CoC B106 prior to the commencement of Construction; the results of which will be used to assess the impacts of future construction discharges.

Monitoring will continue to be undertaken four times a year at the beginning and end of spring and beginning and end of autumn. The full details of the monitoring programme are included in the MPE Stage 2 Baseline Aquatic Ecological Monitoring Program prepared in accordance with CoC B106.

4.1.2 Monitoring and Inspections

The Daily and Weekly Environmental Inspection Checklists (refer to Appendix A - EWESCP), will be used to maintain compliance and effectiveness of controls. Items that require action will be documented during environmental inspection and notified to the Site Supervisor in their site diaries. The Site Supervisor will be responsible for providing appropriate resources in terms of labour, plant and equipment to enable the items to be rectified in the nominated timeframes. Monitoring under this plan will be undertaken by the Contractor's EM during weekly inspections of construction activities to monitor compliance with the requirements of the CoCs and this plan. Weekly inspections will focus on the following key issues:

- Integrity, capacity and performance of construction site water quality, sedimentation and flood control measures (e.g. sediment fences, drainage protection, temporary check dams/sumps, diversion bunds, drain protection devices)
- Rehabilitation works.

Weekly inspections are also to occur prior to Rostered Day Off (RDO) weekends and other times where the Project site will be closed or inactive for an extended period.

In addition, the implementation and record keeping of inspection and monitoring initiatives listed in Table 18 and Table 19 below will allow the Contractor's EM to determine compliance with the CoCs, EPL and best practice. Table 18 details the types of inspections to be undertaken during Early Works and construction.

Table 18 Summary of Inspections

Focus	Area / Location	Responsibility	Frequency
Supervisor daily inspections	Entire Project site	Site Supervisor	Daily
Rainfall Inspections (pre, post, during)	All water quality control and sediment control structures	Contractor's EM	<p>Inspection of the site drainage and ERSED control measures should be undertaken:</p> <ul style="list-style-type: none"> • During dry conditions within 24 hours of expected rainfall of a 60% chance of 70 mm • Within 18 hours following a rainfall event of sufficient intensity and duration to cause runoff onsite OR where 70 mm of rain has fallen in 24 hours.
Weekly environment and sustainability inspections	All water quality control and sediment control structures	Contractor's EM	Weekly inspections to check on erosion and sediment control devices (as well as other environmental aspects).

Table 19 details the monitoring requirements to be fulfilled during construction. The ESCP and Primary ESCP details the indicative locations of erosion and sediment control devices to ensure that runoff generated

from site must pass through a sediment control device prior to leaving site. Runoff diverted to sediment basins will be treated (as described within the ESCP) to ensure that it is within water quality parameters (as defined in Table 17, SW45) prior to discharge (see below “*discharge water quality*”). As per Condition L2.6 of the Moorebank EPL, the EPA must be advised within three working days of the completion of TSS testing if any results are above the license limit.

The *aquatic ecological monitoring* program will identify any changes to the receiving water quality as a consequence of early works, construction and operation activities. Discharge water quality will be compared to water quality monitoring results from implementing the *aquatic ecological monitoring* to determine if further treatment is required to ensure license conditions are met and receiving water quality is not degraded as a result of planned discharges.

In the event that rainfall is of sufficient duration and intensity to cause runoff, a visual inspection of *receiving waters* will be undertaken, as well as inspection (as described above) of the adequacy of the erosion and sediment controls. If a potential non-compliance or non-conformance is identified, additional monitoring of the receiving waters will be undertaken and corrective actions and incident response (if necessary) will be implemented to reduce the potential for further impact on receiving waters, (see Section 4.3).

Table 19 Summary of Monitoring

Focus	Location	Responsibility	Frequency
Weather	Nearest Bureau of Meteorology weather station observations	Contractor's EM	Daily
Pre-start checks on plant and equipment	Entire Project site	Site Supervisors Site Personnel	Daily
Discharge water quality	Sediment basins	Contractor's EM	Prior to discharge of basin, monitoring to be undertaken for TSS, turbidity, pH and visible oil and grease. Monthly during discharge at each discharge point, monitoring must be undertaken for pH, TSS and turbidity using grab samples. Licensed discharge points for the MPE site are identified within the Moorebank Precinct EPL.
Receiving water quality	Anzac Creek 100 m upstream and 100 m downstream of Project site	Contractor's EM	Visual inspection during rainfall event of sufficient intensity and duration to cause runoff onsite. If non-compliance or non-conformance is determined and is attributed to the Project, a sample will be taken to determine TSS (or turbidity if correlation undertaken), pH and visible oil and grease and incident measures implemented.
Aquatic Ecological Monitoring	Various locations on Anzac Creek	Principal's Representative	Aquatic ecological monitoring will be undertaken in accordance with CoC B106 and includes water and sediment, invertebrate and fish assemblages. Monitoring will be undertaken four times a year, at the beginning and end of Autumn, and the beginning and of Spring. See

Focus	Location	Responsibility	Frequency
			Biodiversity Monitoring Strategy for more information (Section 5 of the Baseline Aquatic Ecological Monitoring Report and Biodiversity Monitoring Strategy).

4.2 Environmental Auditing and Reporting

Auditing and reporting will be undertaken in accordance with the CEMP.

Spoil imported to the Project site will be tracked via an Imported Spoil Tracking Register (refer to the CSMP), and the Fill Importation Management Protocol (refer to Appendix D). Details of waste types, volumes and destinations will be recorded in the Waste Management Register, or similar (refer CDWMP).

4.3 Non-compliance, Non-conformance and Actions

It is the responsibility of all site personnel to report non-compliances and non-conformances to the Site Supervisor and/or the Contractor's EM.

Non-compliances, non-conformances and corrective and preventative actions will be managed in accordance with Section 4.4 of the CEMP.

4.4 Review and Improvement

Review and improvement of this plan (including the CESSCP contained in Appendix A) will be undertaken in accordance with the CoCs and Section 4.5 of the CEMP. Continuous improvement will be achieved by the ongoing evaluation of environmental management performance and effectiveness of this plan against environmental policies, objectives and targets.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure. Construction will be undertaken in accordance with the most recent, approved version of this CSWMP.

4.5 Complaints Handling

Complaints handling will be undertaken in accordance with the CEMP and Construction Community Communication Strategy. A complaints register will be maintained, and the following information will be recorded:

- Name of complainant
- Address of complainant
- Form of complaint
- Date and time of complaint
- The nature of the complaint (i.e. fugitive dust, smoky vehicle)
- Allocation of complaint to the relevant Construction Contractor
- Details of the investigation into the complaint
- Actions taken to address complaint
- Results of action taken to address complaint
- Any follow up contact with complainant or further action undertaken.

APPENDIX A CONSTRUCTION EROSION AND SEDIMENT CONTROL PLAN

CONSTRUCTION EROSION AND SEDIMENT CONTROL PLAN

Moorebank Precinct East Stage 2

30 October 2020

SYDNEY INTERMODAL TERMINAL ALLIANCE

Moorebank Precinct East Stage 2

Author

[REDACTED]

[REDACTED]

Checker

[REDACTED]

[REDACTED]

Approver

[REDACTED]

[REDACTED]

Report No SSS2-QPMS-EN-APP-00041

Date 30/10/2020



Revision Text 007

Author Details

Author Details	Qualifications and Experience
Melanie Gostelow Level 16 580 George Street Sydney NSW 2000	Melanie Gostelow has over 10 years' experience as a Water Resources Engineer and has a Bachelors of Environmental Engineering (Honours) and Master of Engineering Science in Water Resources.

REVISIONS

Revision	Date	Description	Prepared by	Approved by
001	23/03/2018	First draft for client review	[REDACTED]	[REDACTED]
002	28/03/2018	Update based on ER comments	[REDACTED]	[REDACTED]
003	5/02/2018	Update based on DP&E comments	[REDACTED]	[REDACTED]
004	11/02/2018	Update based upon meetings and discussions with DP&E on 7 and 9 May 2018	[REDACTED]	[REDACTED]
005	30/08/2018	Updated to amend qualifications of the ErSed Specialist	[REDACTED]	[REDACTED]
006	24/10/2019	Minor updates associated with RfMA 014 – Suitable spoil importation	[REDACTED]	[REDACTED]

Revision	Date	Description	Prepared by	Approved by
007	30/10/2020	Minor updates associated with: <ul style="list-style-type: none"> • RfMA-018 – MAUW boundary change • RfMA-028 – MAUW/MADR stockpile areas • SSD 7628-Mod 2 approval • Periodic review of management plans - Alignment of Environmental Representative approval authority to the CoC 		

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APPENDIX A - PRIMARY ESC DRAWINGS

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1 BACKGROUND

The Sydney Intermodal Terminal Alliance (SIMTA) received approval for the construction and operation of Stage 2 of the Moorebank Precinct East (MPE) Project (SSD 7628), which comprises the second stage of development under the MPE Concept Approval (MP10_0193) and approved under Development Consent SSD 7628. This was subsequently modified and approved under Modification 2 (SSD 7628-Mod 2).

This Construction Erosion and Sediment Control Plan (CESCP) has been developed to manage impacts to soils, water quality and water quantity, including soil erosion, sedimentation, and water diversion during Construction of Stage 2 of the Moorebank Precinct East (MPE) Project (hereafter, 'the Project').

Within this plan, a strategy has been established to demonstrate the Construction Contractor's approach to the management of erosion and sediment control. This CESCP addresses the relevant requirements of the Project Approvals, including the Environmental (EIS), Response to Submissions (RtS) and Minister's Conditions of Consent (CoCs), and all applicable guidelines and standards specific to the management of soils and water during Construction. This CESCP forms part of the Construction Soil and Water Management Plan (CSWMP), which is a sub-plan to the Construction Environmental Management Plan (CEMP).

1.1 Introduction

The MPE site, including the Site, is located approximately 27 kilometres (km) south-west of the Sydney Central Business District (CBD) and approximately 26 km west of Port Botany and includes the former Defence National Storage and Distribution Centre (DNSDC) site. The MPE site is situated within the Liverpool Local Government Area (LGA), in Sydney's South West subregion, approximately 2.5 km from the Liverpool City Centre.

The MPE Project involves the development of an intermodal facility including warehouse and distribution facilities, freight village (ancillary site and operational services), stormwater, landscaping, servicing and associated works on the eastern side of Moorebank Avenue, Moorebank.

Stage 2 of the MPE Project (the Project) involves the construction and operation of warehousing and distribution facilities on the MPE site and includes upgrades¹ to approximately 2.1 km of Moorebank Avenue. The Project has been assessed by the Department of Planning and Environment (DP&E) under Part 4, Division 4.1 (now Division 4.7 as of 1 March 2018) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as State Significant Development (SSD).

Key components of the Project include:

- Earthworks including the importation of 600,000 m³ of fill and vegetation clearing
- Importation, stockpiling and placement of up to 250,000 m³ of suitable spoil (separate to the 600,000 m³ of imported clean general fill permitted for bulk earthworks)
- Approximately 300,000 m² gross floor area (GFA) of warehousing and ancillary offices
- Freight village, 8,000 m² GFA of ancillary retail, commercial and light industrial land uses
- Warehouse fit-out
- Internal road network and hardstand across the site
- Ancillary supporting infrastructure within the site, including:
 - Stormwater, drainage and flooding infrastructure
 - Utilities relocation/installation
 - Fencing, signage, lighting, remediation, and landscaping
- An upgrade to Moorebank Avenue comprising the following key components:
 - Raising by about two metres and some widening

¹ Other road infrastructure upgrades are required under the MPE Stage 2 Approval however would be undertaken subject to future approval and a separate CEMP (as required).

- Embankments and tie-ins to existing Moorebank Avenue road levels
- Signalling and intersection works
- Upgrading existing intersections along Moorebank Avenue, including:
 - Moorebank Avenue / MPE Stage 2 access
 - Moorebank Avenue / MPE Stage 1 northern access
 - Moorebank Avenue / MPE Stage 2 central access
 - Moorebank Precinct West (MPW) Southern Access/ MPE Stage 2 southern emergency access.

1.2 Purpose and Application

This Construction Erosion and Sediment Control Plan (CESCP) has been developed to address the Conditions of Consent (CoCs) B39 and the Final Compilation of Mitigation Measures (FCMMs) 5A. The CESCP aims to prescribe and depict where controls should be located on site to provide adequate mitigation against erosion and sediment loss from the Project site during construction.

This CESCP has been prepared in accordance with:

- Volume 1 of Managing Urban Stormwater: Soils and Construction (Blue Book) (Landcom 2004)
- Managing Urban Stormwater: Soils and Construction – Installation of Services, Volume 2A (OEH 2008)
- Managing Urban Stormwater: Soils and Construction – Main Road Construction, Volume 2D (OEH 2008).

The CESCP is divided into this written document (this plan) and accompanying Primary Erosion and Sediment Control (ESC) drawing (Appendix A) and forms part of the Construction Soil and Water Management Plan (CSWMP). Progressive erosion and sediment control drawings, focussed on key work areas, will be developed by the Construction Contractor during construction. These progressive drawings will be managed separately to this CESCP, approved by a suitably qualified or Certified Professional in Erosion and Sediment Control and provided to the Environmental Representative (ER) for information prior to commencement of works. The progressive drawings will be reviewed weekly through the Weekly Inspection Checklist (Appendix B). This plan will be implemented prior to commencement of construction and will be updated as relevant to changing construction activities. Progressive ESC Drawings may deviate from the Primary ESC Drawing and are designed to accommodate the daily changes in site conditions.

This updated CESCP has been prepared for the construction phase of the Project and supersedes the EWESCP, previously submitted to the Secretary under the Early Works Soil and Water Management Plan (EWSWMP).

Construction will not commence until acknowledgement has been received from the Secretary that this CESCP has been prepared to their satisfaction. Construction will be undertaken in accordance with the most recent, approved version of the CESCP. Erosion and sediment controls will be installed progressively across site, but prior to the commencement of works in the area where works are due to be undertaken.

1.3 Staged Submission of this Plan

Subject to the approval of the Secretary (CoC A14), the Project has elected to stage the submission of a number of strategies, plans and programs that are required by the CoCs based on the Delivery Works Phases identified in Table 1.

In accordance with CoC A15, Table 1 identifies the stage of the development to which this CESCP applies, and the relationship to any future stage. The trigger for updating the document is also identified in Table 1. When a document is updated, the most recent version of the document will supersede the previous version(s). Progressive Erosion and Sediment Control drawings will be approved by a suitably qualified or Certified Professional in Erosion and Sediment Control and provided to the Environmental Representative (ER) for information prior to commencement of works.

Table 1 Staged Documentation and Triggers to Satisfy CoC A15

Delivery Works Phases	General Description of Works	Current Document	Trigger to Update Document
Early Works			
Early Works	Utilities adjustments and relocations, clearing and stripping of topsoil, heritage salvage, fill importation, establishment of site access, temporary fencing and compound establishment, and other activities determined by the ER to have minimal environmental impact	<input type="checkbox"/> Document prepared to address Early Works only	Prior to the commencement of construction works
Construction			
Construction Phase A	Early Works activities, bulk earth works, drainage and utilities, construction and internal fit-out of warehousing and finishing works	<input checked="" type="checkbox"/> Document prepared to address Construction Works Phase A only (does not address Moorebank Avenue upgrade works)	Prior to the commencement of Moorebank Avenue upgrade works
Construction Phase B	Construction Phase A activities, construction of the Moorebank Avenue Diversion Road, bulk earthworks, drainage and utilities and pavement works	<input type="checkbox"/> Document prepared to address all construction works (Phase A + Phase B)	

1.3.1 Document Structure

The methodology to satisfy CoC B39 was discussed and agreed with DP&E in a meeting held in DP&E offices on 6 February 2018. The structure of the document therefore includes the following:

- Introductory text (Section 1.1 to 1.3)
- Compliance Matrices (Section 1.4)
- Text describing how each requirement has been addressed (Section 2, Appendix A and Appendix B)
- Primary ESC Drawings (Appendix A).

The conditions required for management plans under CoC C7 are detailed within the CSWMP.

1.4 Compliance Matrices



The Project is being delivered under Part 4, Division 4.1 (now Division 4.7 as of 1 March 2018) of the EP&A Act. The CoCs include requirements to be addressed in this CESC and delivered during the Project. These requirements and how they are addressed are provided within Table 2.






Table 2 Conditions of Consent (CoCs)



CoC	Requirement	Document Reference	How Addressed
A15	If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage of the	Section 1.3	This CESC is relevant to Construction Phase A as identified in Section 1.3. The CESC will be superseded by the CESC relevant to Construction Phase B prior to

CoC	Requirement	Document Reference	How Addressed
	development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program		the commencement of Moorebank Avenue Upgrade Works (refer to Table 1). Construction Phase A and B are described in more detail in Section 1.2 of the CSWMP.
A32	All plant and equipment used at the site or to monitor the performance of the development must be: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Section 3.3 of the CSWMP	a) CSWMP Table 14 SW10 indicates that plant and equipment will be maintained in accordance with manufacturers requirements. b) All plant and equipment used on site will be operated in a proper and efficient manner per SIMTA Standard Operating Procedures.
B34	Prior to early works, fill importation or any other surface disturbance, the Applicant must prepare a Soil and Water Management Plan (SWMP) to the satisfaction of the Secretary. The plan must form part of the CEMP required by condition C1 and must include: (a) measures to verify the properties of fill imported to the site (see condition (b));	CSWMP	The CSWMP has been developed to meet the requirements of CoC B34.
	(b) plans showing limits of clearing, filling and other earthworks and vegetation to be retained and protected;	CSWMP – Section 1.2	Figure 1-1 and Figure 1-2 of the CSWMP show limits of fill and clearing.
	(c) plans showing temporary access points and haul roads within the site for fill stockpiling and placement;	CSWMP – Section 1.2	Figure 1-1 and Figure 1-2 of the CSWMP show temporary access points and haul roads.
	(d) plans showing the location of stockpiled fill and other materials and storage areas (see condition (c));	CSWMP – Section 1.2	Figure 1-1 and Figure 1-2 of the CSWMP show stockpile locations and material storage areas.
	(e) an Erosion and Sedimentation Control Plan (see condition B40);	This CЕСP	This CЕСP has been prepared to address the specific requirements of this condition.
	(f) measures to minimise dust, erosion and prevent migration of soil off site and migration into constructed and natural drainage lines (see condition B39);	CSWMP – Section 3.3 Construction Air Quality Management Plan (CAQMP)	Section 3.3 of the CSWMP includes management measures to minimise dust, erosion and offsite migration of sediment. Further detail on dust management measures is provided in the CAQMP.
	(g) details on design and maintenance of temporary stormwater drainage infrastructure including sediment basins and temporary diversion channels around temporary work obstructions to allow low and normal flows to safely bypass the work	Section 2.2.3 CSWMP – Section 3.3 CSWMP	Section 2.2.3 includes details on the design and maintenance of sediment basins and diversion channels. Erosion and sediment control management measures are also detailed in Table 15 of the CSWMP.

CoC	Requirement	Document Reference	How Addressed
	areas and to separate clean and dirty water flows (see condition B40);		
	(h) details of existing stormwater infrastructure to be retained, including upgrades to meet design criteria, and design and maintenance of proposed new infrastructure (see condition B40);	CSWMP – Section 3.1	Details of existing stormwater infrastructure are included in Section 3.1 and Figure 3-4 of the CSWMP
	(i) evidence that legal agreement has been obtained: <ul style="list-style-type: none"> (i) to discharge stormwater through adjacent sites; (ii) for any necessary upgrade works to be constructed; (iii) for undertaking maintenance activities; and (iv) use of OSD basins on other sites, such as the MPW site, for this development, and; (v) evidence that an easement has been obtained or is currently in place to discharge and detain water through adjacent sites; 	CSWMP - Appendix C	Appendix C of the CSWMP includes Memorandum – CoC B34(l) for evidence that the legal agreements have been obtained.
	(j) evidence that a drainage easement is in place to discharge stormwater through the MPW site, and to provide OSD basins within the MPW site, for this development, and that drainage infrastructure within the MPW site to the Georges River has been repaired or upgraded to the satisfaction of the Secretary prior to completion of construction of the temporary MPE Stage 2 sediment basins.		Construction will not alter flows through the MPW site; hence no alteration to the MPW drainage infrastructure is proposed.
	(k) confirmation that the stormwater drainage systems in adjacent sites are designed, or can be upgraded to accept flows from the MPE site, including provision of scour protection at discharge points;	CSWMP – Section 3.2.1	Stormwater infrastructure on the adjacent DJLU has recently been upgraded and has been designed to accommodate flows from the MPE site.
	(l) demonstrate no impact on Anzac Creek flood levels or flood extents due to filling of the MPE site;	Appendix A – Primary ESC Drawings CSWMP - Section 3.1.8 Stormwater Management Plan	Construction site runoff would be temporarily detained in sediment basins (refer Appendix A) so as to mitigate impacts on Anzac Creek flood levels and extents during construction. Following construction, and the placement of fill, impacts on Anzac Creek flood levels and extents are expected to be limited to events larger than the 100-year Annual Recurrence Interval (ARI) and would be

CoC	Requirement	Document Reference	How Addressed
			consistent with the findings of the MPE Stage 2 EIS.
	(m) demonstrate no change to stormwater flows directly entering proposed biodiversity offset areas;	CSWMP - Section 3.2.1	Construction site runoff would be temporarily detained in sediment basins to maintain existing condition flow regimes and distributions leaving the construction area.
	(n) demonstrate no deterioration in the quality of stormwater discharged from the site into proposed biodiversity offset areas; and	Section 2.2.3 CSWMP - Section 3.2.1 and 3.3	Sediment basins have been sized and located to ensure sediment concentrations in site runoff are within acceptable limits as described in Section 2.2.3. Stormwater leaving the MPE site needs to meet the requirements set out and explained in the CSWMP.
	(o) demonstrate that stormwater leaving the site meets the design water flow and water quality criteria (see condition B44 water quality monitoring).	CSWMP - Section 3.3	Stormwater leaving the MPE site will meet the requirements set out and is explained in the CSWMP.
B39	(a) be prepared by a suitably qualified person;	Cover page Primary ESC Drawings signature section	The Primary ESC Drawings have been prepared to address the requirements of this condition (Appendix A). The plan has been prepared by a suitably qualified person as shown on the cover page and the Current Issue Signatures section on the Primary ESC Drawing.
	(b) be prepared in accordance with Volume 1 of Managing Urban Stormwater: Soils and Construction ('the Blue Book') (Landcom 2004), Managing Urban Stormwater: Soils and Construction – Installation of Services, Volume 2A (OEH 2008) and Managing Urban Stormwater: Soils and Construction – Main Road Construction, Volume 2D (OEH 2008). The plan must consider likely stages of the works and provide for appropriate control of sediment and erosion for each stage. The plan must show:	Section 1.2 Section 2.2 Appendix A - Primary ESC Drawings	This CESC has been developed for the construction stage of the Project and was prepared in accordance with: <ul style="list-style-type: none"> Volume 1 of Managing Urban Stormwater: Soils and Construction (Blue Book) (Landcom 2004) Managing Urban Stormwater: Soils and Construction – Installation of Services, Volume 2A (OEH 2008) Managing Urban Stormwater: Soils and Construction – Main Road Construction, Volume 2D (OEH 2008). The General Erosion and Sediment Control Notes included in Appendix A have been developed in accordance with the above listed documents.
	(i) location and extent of all necessary sediment and erosion control measures for the site;	Appendix A - Primary ESC Drawings	The location and extent of the necessary sediment and control measures are shown on the Primary ESC drawings (Appendix A) and include: <ul style="list-style-type: none"> - Sediment fence () - Stabilised site access ()

CoC	Requirement	Document Reference	How Addressed
			<ul style="list-style-type: none"> - Earth bank low flow and check dams () - Sediment basin ()
	(ii) catchment plan;	Section 2.2.2 Figure 2-1 Appendix A - Primary ESC Drawings	<p>The proposed sediment basin catchment boundaries () are shown on the Primary ESC Drawings.</p> <p>The total catchment areas for each sediment basin are calculated and outlined in Table 7.</p> <p>Figure 3-1 in the CSWMP shows the existing catchments and drainage on the Project site.</p>
	(iii) sediment basin(s) locations including details showing how runoff from the entire site will be directed to the sediment basin(s);	Section 2.2 Appendix A - Primary ESC Drawings	<p>The nine proposed sediment basin locations are located on the Primary ESC Drawings within the MPE Stage 2 construction boundary.</p> <p>The red arrows () show the diversion of dirty water run-off for the sediment basins.</p>
	(iv) all relevant details and calculations of the sediment basins including sizes, depths, flocculation, outlet design, all relevant sections, pump out systems, and depths;	Appendix A - Primary ESC Drawings Section 2.2.4	<p>The sediment basin sizing calculations are shown in Table 7. The minimum depth for the sediment basin is 1500 mm, as shown in Note #4 of the Primary ESC Drawings. Each sediment basin has a designed emergency outlet as per SD6-4.</p> <p>The Dewatering Procedure outlines the dewatering technique that will be implemented throughout the Project, including the adjustment of pH and turbidity during flocculation.</p>
	(v) all details of basement and other excavation pump out and dewatering treatment systems including flocculation and any proposed discharge from the site from dewatering and pump out systems;	Section 2.2.4	<p>The Dewatering Procedure outlines the procedures for the discharge of water from the Project site, including the use of flocculation.</p> <p>The three proposed discharge locations (outlets) are shown in Figure 3-1 in the CSWMP.</p> <p>Discharge from the Project site from the sediment basins will occur to the nearest stormwater drain, as shown in the Primary ESC Drawings.</p>
	(vi) identification and management of any stormwater run-on to the site from adjacent sites;	Section 2.2 Appendix A - Primary ESC Drawings	<p>Stormwater run-on to the Project site from adjacent will be managed by sediment fences () identified around the construction boundary in the ESC Drawings.</p>

CoC	Requirement	Document Reference	How Addressed
			<p>Diversion of external clean water will occur on the Project site, as identified with the grey arrows (→) in the Primary ESC Drawings.</p> <p>External clean water diversions will be discharged to existing swales and channels.</p>
	(vii) location of any temporary stockpiles (soil, spoil, top soil or otherwise) and accompanying sediment and erosion control measures;	Section 2.2.5 Appendix A - Primary ESC Drawings	<p>Temporary stockpile locations () are identified on the Primary ESC Drawings.</p>
	(viii) location and details of all vehicle wash down bays and associated erosion and sediment control measures such as earthen bunds; and	Section 2.2.6 Appendix A - Primary ESC Drawings	<p>Stabilised site access areas () include rumble grids, wheels washes and vehicle wash down areas, as identified in Note #5 of the Primary ESC Drawings.</p>
	(ix) a daily and weekly site inspection checklist consistent with IECA Best Practice Erosion and Sediment Control documents.	Appendix B - Daily and Weekly Inspection Checklists	<p>Weekly and daily checklists for the Project site are included in Appendix B.</p>
	(c) be implemented prior to commencement of Early Works, fill importation and construction (and any substages of these phases) and be updated as relevant to changing Early Works; fill importation, stockpiling and placement, and construction activities.	N / A	<p>The plan will be implemented prior to commencement of construction and will be updated as relevant to changing construction activities.</p>
B40	Prior to commencement of early works and fill importation, an amended Stormwater Management Plan must be submitted and approved by the Secretary. The plans must be prepared by a suitably qualified person, and independently reviewed, to ensure it meets the following criteria for:	Stormwater Management Plan CSWMP	<p>The Stormwater Management Plan and the CSWMP have been prepared by suitably qualified persons and reviewed by the Environmental Representative.</p> <p>The person preparing the written plans and drawings is identified on the cover page and Current Issue Signatures section in the CESC (Appendix A - Primary ESC Drawings).</p>
	(a) Drainage		
	(i) convey flows from low order events (up to and including the 10% AEP event from the main part of the site within the formal drainage system, with flows from rarer events (up to the 1% AEP event) conveyed in controlled overland flow paths;	Stormwater Management Plan Appendix A - Primary ESC Drawings	<p>This condition is for the operational phase of the Project and is addressed in the Stormwater Management Plan.</p> <p>Low flow and high flow channel designs for conveyance of construction water will be in accordance with the Blue Book.</p> <p>Low flow earth banks and associated check dams have been located to divert water to sediment basins. Low flow banks will be constructed in accordance with the Blue</p>

CoC	Requirement	Document Reference	How Addressed
			Book Standard Drawing (SD) 5-5 and high flow channels will be constructed in accordance with SD 5-6.
	(ii) show the location and width of controlled overland flow paths; and	Appendix A - Primary ESC Drawings	Refer to the Primary ESC Drawings (Appendix A in the CЕСP) for the location and width of controlled overland flow paths.
	(iii) provide levels to AHD confirming building floor levels are a minimum of 150 mm above the maximum design flow path levels	Stormwater Management Plan	This condition is for the operational phase of the Project only and is addressed in the Stormwater Management Plan.
	<p>(b) Water Sensitive Urban Design</p> <p>(i) incorporate water sensitive urban design principles, be generally in accordance with relevant Council policies, plans and specifications</p> <p>(ii) ensure that adequate overland flow paths have been provided in the event of stormwater system blockages and flows in excess of the 1% ARI rainfall event;</p> <p>(iii) ensure on site detention basins are visually unobtrusive and ensure public safety;</p> <p>(iv) ensure rainwater harvesting is provided for each warehouse;</p> <p>(v) ensure adequate site area has been provided for stormwater treatment;</p> <p>(vi) ensure design of stormwater treatment systems minimises the risk of failure; and</p> <p>(vii) develop concept options for how 20% of the average annual volume of stormwater from the site can be reused via rainwater capture and reuse for activities including but not limited to:</p> <ul style="list-style-type: none"> • irrigation, • all internal non-potable uses, • washdown, • cooling towers, • heating, ventilation, and air conditioning, and • ground source heat exchange. <p>The Applicant is to brief the Department on how these initiatives will be implemented prior to the completion of the Stormwater Management Plan.</p>	Stormwater Management Plan	Water sensitive urban design (WSUD) elements are associated with the operational phase of the Project. These requirements are not applicable to the construction phase of the Project and have not been addressed in this plan.
	(c) Water Quantity		

CoC	Requirement	Document Reference	How Addressed
	<p>(i) on site detention is to be provided to attenuate peak flows from the development such that both the:</p> <ul style="list-style-type: none"> 1 in 1 year ARI event post development peak discharge rate is equivalent to the pre-development (un-developed catchment) 1 in 1 year ARI event 1 in 100 year ARI event post development peak discharge rate is equivalent to the pre- development (un-developed catchment) 1 in 100 year ARI event. 	Stormwater Management Plan	<p>Design, sizing and locations of the OSD basins is discussed within the Stormwater Management Plan</p> <p>Sediment basins have been designed and located in accordance with the Blue Book, as described in this plan.</p>
	(ii) no new drainage infrastructure work within the Defence Joint Logistics Unit (DJLU) site	Table 14, CSWMP	No new drainage infrastructure work will occur within the DJLU site as addressed in Section 3.1.1.
	(iii) all on site detention basins to have maximum batter slopes of 1V:4H or, for works immediately adjacent to the Moorebank Avenue upgrade, an alternate slope gradient agreed to by RMS	Stormwater Management Plan	<p>Design, sizing and locations of the OSD basins is discussed within the Stormwater Management Plan</p> <p>Sediment basins are proposed to manage stormwater flows during the construction phase and have been designed and located in accordance with the Blue Book, as described in this plan. Sediment basins will be constructed in accordance with SD 6-4.</p>
	(iv) siting and design of on site detention basins to eliminate/ minimise excavation within the southern ordinance burial pits; and	Contamination Management Plan Section 11	<p>Design, sizing and locations of the OSD basins is discussed within the Stormwater Management Plan</p> <p>It is noted that two sediment basins fall partially within the area identified as the 'southern ordinance burial pits'. This area, however, has been surveyed and a clearance certificate provided. Any Unexpected Ordinance identified during construction of the sediment basins will be managed in accordance with the Unexpected Finds Procedure detailed within Section 11 of the Contamination Management Plan prepared as part of the CEMP.</p>
	(v) maintenance access to be provided to each on site detention basin	Stormwater Management Plan	<p>The provision of maintenance access to the OSDs is discussed in the Stormwater Management Plan.</p> <p>Sediment basins have been designed and located in accordance with the Blue Book, as described in this plan.</p>





CoC	Requirement	Document Reference	How Addressed
	<p>(d) Connection to natural creeklines</p> <p>(i) on site detention basin outlets to natural drainage lines must be constructed of natural materials to facilitate natural geomorphic processes and to include vegetation as necessary (gabion baskets and gabion mattresses are not acceptable).</p>	<p>Appendix A - Primary ESC Drawings</p> <p>Stormwater Management Plan</p>	<p>The connection of OSDs to the natural creeklines is discussed in the Stormwater Management Plan. As per the Stormwater Management Plan, OSD basin outlets will be constructed with natural materials.</p> <p>No sediment basins proposed for construction connect directly to natural creeklines (Appendix A).</p>
	<p>(e) Stormwater Quality</p> <p>i) have a stormwater quality treatment train comprised of gross pollutant traps and biofiltration/ bioretention systems designed to meet the following criteria compared to a base case if there were no treatment systems in place:</p> <ul style="list-style-type: none"> • reduce the average annual load of total nitrogen by 45%; • reduce the average annual load of total phosphorus by 65%; and • reduce the average annual load of total suspended solids by 85%. <p>ii) all stormwater quality elements are to be modelled in MUSIC as per the NSW MUSIC Modelling Guide.</p> <p>iii) all stormwater quality elements are to be installed upstream of stormwater detention basins, unless it can be demonstrated that biofiltration/ bioretention systems within the OSD basins will not suffer damage from design flows and can be maintained to achieve the water quality criteria.</p> <p>iv) the area of biofiltration / bioretention systems is to be at least 1% of the catchment draining to the system, to ensure there is no short-circuiting of the system.</p> <p>v) bioretention systems which are greater than 1,000m² in area, are to be divided into cells with no individual cell greater than 1,000m².</p> <p>vi) all filter media used in stormwater treatment measures must:</p> <ul style="list-style-type: none"> • be loamy sand with an appropriately high permeability under compaction and must be free of rubbish, deleterious material, toxicants, declared plants and local weeds, and must not be hydrophobic; 	<p>N / A</p>	<p>These conditions are for the operational phase only and are not related to construction.</p> <p>Sediment basins for construction will be designed and located in accordance with the Blue Book, which is considered more appropriate for modelling the pollutant removal capacity of construction phase sediment basins.</p> <p>Appropriate construction discharge limits have been adopted and are included in Section 3.3 of the CSWMP. Construction stormwater management elements are described in this plan.</p>



CoC	Requirement	Document Reference	How Addressed
	<ul style="list-style-type: none"> have an hydraulic conductivity = 100-300 mm/hr, as measured using the ASTM F1815-06 method have an organic matter content less than 5% (w/w) be provided adequate solar access, considering the design and orientation of OSD basins. 		
	A copy of the independent review must be submitted with the Plan. A statement from the reviewer confirming their independence and declaring any actual, potential or perceived conflicts of interest must be provided as part of the reporting of the findings and recommendations of the review.	Stormwater Management Plan	A copy of the independent review is attached to the Stormwater Management Plan.
C7	<p>The Applicant must ensure that the environmental management plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for a particular management plan.</p>	CSWMP	The CSWMP outlines the existing soils on the Project site.
	<p>(b) a description of:</p> <p>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);</p> <p>(ii) any relevant limits or performance measures/criteria; and</p> <p>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;</p>	CSWMP	The CSWMP outlines the objectives and targets associated with soil and water management that are applicable to this plan.
	(c) a description of the management measures to be implemented to comply with the relevant statutory requirements, limits or performance measures/criteria;	Section 2.2 Appendix A - Primary ESC Drawings	<p>Section 2.2 describes the management measures for erosion and sediment control that will be implemented during construction.</p> <p>Appendix A contains Primary ESC Drawings showing where these measures would be implemented.</p>
	(d) a program to monitor and report on the:	Section 2.3	Section 2.3 outlines the daily and weekly inspections that will be undertaken of erosion and sediment controls on site.
	<p>(i) impacts and environmental performance of the development; and</p> <p>(ii) effectiveness of any management measures (see (c) above);</p>	Appendix B - Daily and Weekly Inspection Checklists	Appendix B contains the inspection checklists that will be implemented.

CoC	Requirement	Document Reference	How Addressed
	(e) a contingency plan to manage any unpredicted impacts and their consequences;	CSWMP	Incidents will be notified and works within the vicinity will stop immediately in accordance with the Emergency Spill Response Procedure in Appendix B of the CSWMP.
	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	CSWMP	Improvement measures are discussed in the CSWMP.
	(g) a protocol for managing and reporting any: (i) incidents and non-compliances; (ii) complaints; (iii) non-compliances with statutory requirements; and	CEMP	The CEMP outlines the protocol for managing and reporting complaints, incidents and non-compliances.
	(h) a protocol for periodic review of the plan.	CSWMP CEMP	A protocol for periodic review is outlined in the CSWMP and the CEMP. The protocol is applicable to this plan and Primary ESC Drawings. Progressive erosion and sediment control drawings, focussed on key work areas, will be developed by the Construction Contractor during construction and reviewed on a weekly basis as part of the weekly inspections. These progressive drawings will be managed separately to this plan and provided to a suitably qualified or Certified Professional in Erosion and Sediment Control for approval and provided to the Environmental Representative (ER) for information prior to commencement of works.

The FCMMs were prepared as part of the MPE Stage 2 Submissions Report (Arcadis 2017). A list of the FCMMs relevant to the Project and how they have been complied within this CESP are provided in Table 3 and the Compliance Tracking Program.

Table 3 Final Compilation of Mitigation Measures (FCMMs)

FCMM	Requirement	Document Reference
5A	A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP), or equivalent, would be incorporated into the CEMP for the construction of the Amended Proposal. The SWMP and ESCPs would be developed in accordance with the principles and requirements of Managing Urban Stormwater – Soils & Construction Volume 1 ('Blue Book') (Landcom, 2004) and Volume 2 (DECC 2008) and consider the Preliminary ESCPs (Appendix P of the EIS). The following aspects would be addressed within the SWMP and ESCPs:	<ul style="list-style-type: none"> Appropriate sediment and erosion controls will be implemented as identified in this CESP including: <ul style="list-style-type: none"> Sediment fences () Stabilised site access () Earth bank low flow and check dams () Sediment basin ()

FCMM	Requirement	Document Reference
	<ul style="list-style-type: none"> Construction traffic restricted to delineated access tracks, and maintained until construction complete Appropriate sediment and erosion controls to be implemented prior to soil disturbance Stormwater management to avoid flow over exposed soils which may result in erosion and impacts to water quality Location of stockpiles outside of flow paths on appropriate impermeable surfaces as well as outside of riparian corridors Inspection of all permanent and temporary erosion and sedimentation control works prior to and post rainfall events and prior to closure of the construction area Wheel wash or rumble grid systems installed at exit points to minimise dirt on roads. 	<ul style="list-style-type: none"> Stormwater management is presented in this CЕСP, including earth bank low flow construction details. For further detail on stormwater management, refer to the CSWMP. Two material stockpile areas () are identified on the Primary ESC Drawing, outside of flow paths on appropriate impermeable surface and outside of riparian corridors. Stabilised site access areas () will be located throughout the Project site and will include rumble grids, wheels washes and vehicle wash down areas, or a combination of the above as required (identified in Note #5 of the Primary ESC Drawings).

The Commonwealth mitigation measures which are relevant to this plan are detailed in Table 4.

Table 4 Commonwealth Mitigation Measures

CMM	Requirement	Reference
Hydrology	A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ЕСP) will be implemented for the construction and operation phases of the development, with monitoring and review performance of sediment and water control structures during construction and operation phases. The SWMP and ESCPs will be developed in accordance with the principles and requirements of Managing Urban Stormwater (Landom, 2004).	Appendix A – Primary ESC Drawings: General Erosion and Sediment Control Notes CSWMP

2 EROSION AND SEDIMENT CONTROL PLAN

The following sections provide further detail as to how each element in CoC B39 has been addressed. This is supported by Appendix A which depicts where the erosion and sediment controls will be implemented on the site (Primary ESC Drawings). This plan is intended to be read in conjunction with the CSWMP which has been written to satisfy CoC C7, B34 and B40.

2.1 Suitably Qualified Person

A suitably qualified person is defined as having the following skills and qualifications:

- Tertiary qualifications in either a science, engineering, environmental management or an equivalent field
- Relevant industry association recognition (preferred, although not essential)
- A detailed understanding of the 'Blue Book' and other technical standards associated with the preparation and implementation of progressive construction erosion and sediment controls plans
- A minimum of 5 years' experience in the preparation and implementation of PESCP drawings on infrastructure projects within NSW

Melanie Gostelow has over 10 years' experience as a Water Resources Engineer and has a Bachelors of Environmental Engineering (Honours) and Master of Engineering Science in Water Resources.

2.2 Managing Urban Stormwater: Soils and Construction

This CESC has been developed in accordance with the following guidelines:

- Volume 1 of Managing Urban Stormwater: Soils and Construction (Blue Book)
- Managing Urban Stormwater: Soils and Construction – Installation of Services, Volume 2A (OEH 2008)
- Managing Urban Stormwater: Soils and Construction – Main Road Construction, Volume 2D (OEH 2008).

The relevant principles and requirements of the above documents have been incorporated into this CESC as required and detailed in the following sections.

This CESC is divided into this written document (this plan) and accompanying Primary ESC Drawings (Appendix A) and forms part of the CSWMP. Progressive erosion and sediment control drawings, focussed on key work areas, will be developed by the Construction Contractor during construction. These progressive drawings will be managed separately to this CESC, approved by a suitably qualified or Certified Professional in Erosion and Sediment Control and provided to the Environmental Representative (ER) for information prior to commencement of works. Compliance against the progressive ESC drawings will be undertaken through the Weekly Inspection Checklists (Appendix B).

2.2.1 Location and Extent of Control Measures

The location and extent of erosion and sediment controls required for the commencement of construction have been depicted in the Primary ESC Drawings (Appendix A). The identified measures to be implemented are detailed in Table 5.

Table 5 Types of Control Measures Proposed

Control Measure	Location	Purpose
Erosion Control		
Ground Cover	Stockpiles and exposed surfaces	Ground cover may include, but is not limited to, progressive landscaping, polymer, geofabric, plastic sheeting, mulch.

Control Measure	Location	Purpose
		These may be used to stabilise areas prior to a rainfall event or stabilise longer term stockpiles.
Low flow earth bank and check dams	Various locations as depicted in Appendix A	To slow the flow of dirty water within the site to minimise erosion.
Dust suppression	Site wide	To suppress dust and minimise potential for wind erosion, particularly on windy days. Water to be sprayed as a fine mist spray to dampen surfaces and minimise dust.
Sediment Control		
Sediment fence	Site boundary, at stockpile locations	To minimise the potential for dirty water to migrate from site
Stabilised site access	Site egress locations	To stabilise the egress points so that sediment is not tracked from site on to public roads. These areas will include rumble grids, wheel washes, and vehicle washdown areas.
Sediment basins	Nine (9) basins have been nominated. One basin within each catchment within the site.	Sediment basins act as the last point of control. All dirty water within a catchment will flow to a sediment basin and will be held within the basin until treated, tested and discharged by the Contractor's EM. The treatment and dewatering process is detailed within Section 2.2.4.
Inlet protection	Various locations around site	Inlets will be protected to minimise the potential for mobilised sediment to enter the drainage system. The Primary ESC Drawings contain standard drawings which identify how to install inlet protection.

2.2.2 Catchment Plan

A catchment plan is presented in Figure 2-1.

The Project site falls within the Georges River Estuary catchment with a receiving environment of Botany Bay. The Botany Bay catchment includes residential, industrial, commercial, recreational and bushland with the main sources of pollution coming from stormwater runoff. Hydrology in the local area surrounding the Project site is characterised by the Georges River approximately 800 m west of the Project site and Anzac Creek (a tributary to the Georges River) which act as receivers for the Project site surface water.

The topography of the MPE site is relatively flat, with reduced levels (RLs) ranging between 14 and 16 metres Australian Height Datum (mAHD). Along the eastern site boundary, the land rises from about RL14 mAHD at each end to a localised peak of RL22 mAHD about midway along the length. There are three internal catchments within the MPE site and a number of small external catchments that discharge into the site, from Moorebank Avenue.

Assessment of hydrology across the Project site under current conditions presented in the EIS identifies that the Project site is roughly divided north-south by a catchment boundary, with the eastern portion discharging to Anzac Creek (via outlets in the north-east and south-east corners of the Site, respectively) located approximately 50 m to the south east of the Project site.

There are currently eight catchments identified within the construction footprint, as shown on the Primary ESC Drawings (Appendix A). Each catchment has been designated with its own sediment basin.

Moorebank Avenue has a crest located just to the south of the MPE site southern boundary. To the south of the road crest, runoff discharges to Anzac Creek. To the north of this (Georges river/Anzac Creek) road crest, overland flows generally discharge northward along the road corridor to the culvert under Moorebank Avenue (located just south of the MPE northern site boundary). There are however a number of local pit and pipe systems on the western side of Moorebank Avenue including:

- A conduit system which discharges from Moorebank Avenue westward under the MPW site then into the Georges River (this is the same channel that Outlet C from the MPE site discharges to, see discussion in CSWMP)
- A conduit from the MPW carpark which discharges eastward under Moorebank Avenue into the MPE Stage 1 drainage system
- Several other stormwater pits which may also discharge eastward into the MPE site, northward to the culvert under Moorebank Avenue or westward under the MPW site before discharging to the Georges River.

Clean water flowing towards the Project site from west of Moorebank Avenue would be diverted to the existing stormwater system via diversion bunds to prevent clean stormwater flowing onto the disturbed areas of the Project site (see Appendix A). Currently water from the MPE Stage 1 site flows towards Moorebank Avenue. Clean water from the MPE Stage 1 site will be pumped overland around the Project site and discharged to the clean stormwater channel on the MPW site.

Construction Erosion and Sediment Control Plan

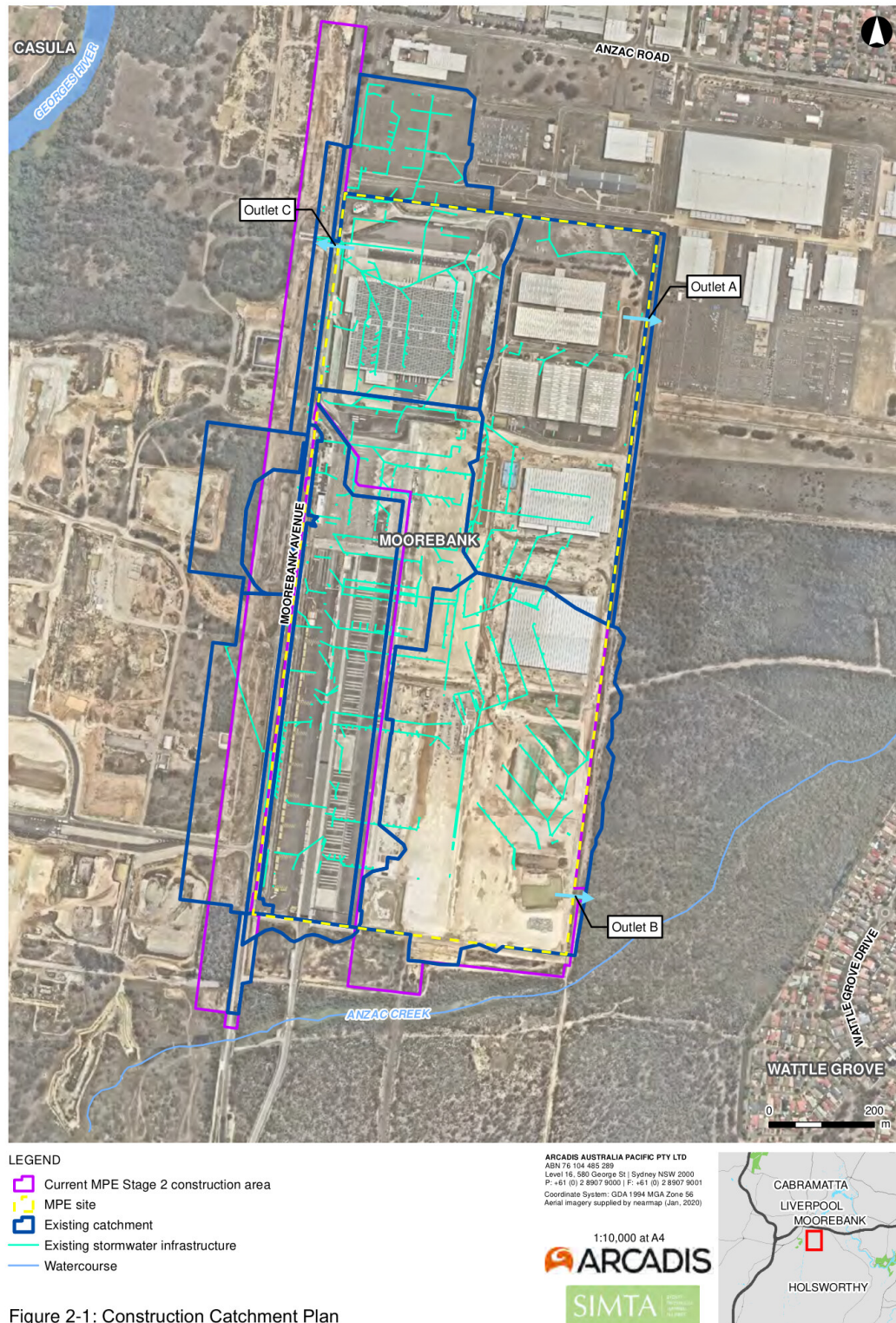


Figure 2-1 Construction Catchment Plan

2.2.3 Sediment Basins

Twelve sediment basins have been identified as being required for construction. Each sediment basin is located within a catchment boundary; the exact location of the basins within the catchment will be determined on site by the Contractor's EM to facilitate the use of the basins throughout the duration of construction. The Primary ESC Drawing has been developed as worst case scenario for the area of exposed ground; as a result, the Early Works sediment basins and construction basins differ in locations. However, the Construction Contractor will determine the best location for the basins based on site conditions. However, the sediment basins will be located at the lowest point of the catchment which will allow water to flow to the basin. Low flow earth banks and associated check dams have been located throughout the Project site to divert water to the sediment basin as shown in Appendix A. Details for the design of low flow and high flow earth banks and check dams are included in Appendix A (SD 5-5, 5-6 & 5-4). Rock check dams will be installed within the earth banks to reduce the velocity of water within the channels.

The sizes of the sediment basins have been calculated in accordance with the methodology detailed in Section 6.3 of the Blue Book. The sizes are based on soil loss calculations as presented in Table 6 against Soil Class F. Indicative basin sizings are shown below based on catchment sizes depicted, with a minimum depth of 1500 millimetres (mm) (Table 7). Where appropriate for construction staging, progressive erosion and sediment control drawings may require resizing of basins to account for changes in catchment area (e.g. where fill levels have changed); this will be undertaken by the Contractor's EM. The Construction Contractor will construct the basin in accordance with SD6-4 of the Blue Book, shown in Figure 2-2, with each basin having a length to width ratio of 3:1. The outlet (or spillway) will be 750 mm below the crest of the sediment basin to divert water out of the basin in high rainfall events.

Table 6 Soil Loss Calculations

Site area	SITE											
	SB01 A	SB01 B	SB01 C	SB02 A	SB02 B	SB02 C	SB09 A	SB09 B	SB10 A	SB10 B	SB10 C	SB10 D
Total catchment area (ha)	13.01	9.43	9.92	8.95	7.02	6.03	7.10	5.60	2.28	3.17	3.32	1.48
Disturbed catchment area (ha)	13.01	9.43	9.92	8.95	7.02	6.03	7.10	5.60	2.28	3.17	3.32	1.48
Soil analysis												
% sand (fraction 0.02 to 2.00 mm)	20	20	20	20	20	20	20	20	20	20	20	20
% silt (fraction 0.002 to 0.02 mm)	40	40	40	40	40	40	40	40	40	40	40	40
% clay (fraction finer than 0.002 mm)	40	40	40	40	40	40	40	40	40	40	40	40
Dispersion percentage												
% of whole soil dispersible	0	0	0	0	0	0	0	0	0	0	0	0
Soil Texture Group	F	F	F	F	F	F	F	F	F	F	F	F
Rainfall data												
Design rainfall depth (days)	5	5	5	5	5	5	5	5	5	5	5	5
Design rainfall depth (percentile)	80	80	80	80	80	80	80	80	80	80	80	80
x-day, y-percentile rainfall event	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
Rainfall intensity: 2-year, 6-hour storm	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
RUSLE Factors												
Rainfall erosivity (R-factor)	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540
Soil erodibility (K-factor)	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048
Slope length (m)	300	190	190	190	190	250	220	250	150	220	220	80
Slope gradient (%)	0.3	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.5	0.5	0.5
Length/gradient (LS-factor)	0.27	0.24	0.24	0.24	0.24	0.26	0.24	0.26	0.23	0.24	0.24	0.19
Erosion control practice (P-factor)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Ground cover (C-factor)	1	1	1	1	1	1	1	1	1	1	1	1
Calculations												
Soil loss (t/ha/yr)	43	38	38	38	38	41	38	41	36	38	38	30
Soil Loss Class	1	1	1	1	1	1	1	1	1	1	1	1
Soil loss (m ³ /ha/yr)	33	29	29	29	29	32	29	32	28	29	29	23
Sediment basin storage volume, m ³	73	47	49	45	35	32	35	30	11	16	17	6

Table 7 Sediment Basin Sizing Calculations

Site	Cv	Rx-day, y-%ile	Total catchment area (ha)	Settling zone volume (m3)	Sediment storage volume (m3)	Total basin volume (m3)
SB01A	0.50	24.4	13.01	1587	73	1660
SB01B	0.50	24.4	9.43	1150	47	1197
SB01C	0.50	24.4	9.92	1210	49	1259
SB02A	0.50	24.4	8.95	1092	45	1137
SB02B	0.50	24.4	7.02	856	35	891
SB02C	0.50	24.4	6.03	736	32	768
SB09A	0.50	24.4	7.10	866	35	901
SB09B	0.50	24.4	5.60	683	30	713
SB10A	0.50	24.4	2.28	278	11	289
SB10B	0.50	24.4	3.17	387	16	403
SB10C	0.50	24.4	3.32	405	17	422
SB10D	0.50	24.4	1.48	181	6	187

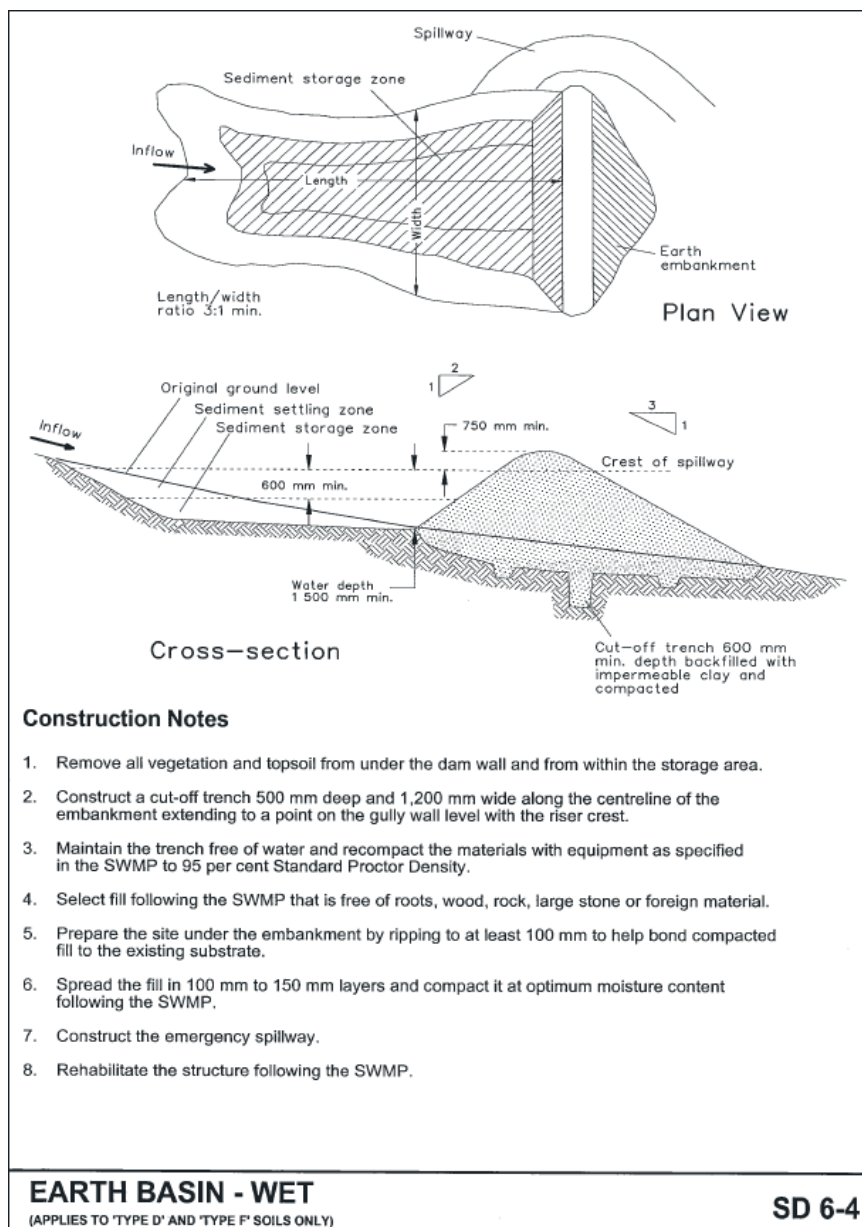


Figure 2-2 Cross Section of Typical Sediment Basin

Maintenance of the sediment basins shall be ongoing for the duration of the Project and shall comprise the following:

- A marker will be installed inside the basin to mark the sediment storage capacity limit. Once this marker is reached and/or where there is a large build up of sediment at the basin inlet, sediment will be removed.
- Sediment that is removed from basins shall be temporarily stockpiled until suitable for reuse on site at locations as approved by the Contractor's EM, where it will not flow off site without proceeding through appropriate ERSed controls.
- The results of maintenance inspections shall be recorded on the Weekly Inspection checklist.

2.2.4 Flocculation, Dewatering and Pump Out

The following (Table 8 and Figure 2-3) details the process for flocculation, dewatering and pumping of sediment basins.

Table 8 Dewatering Procedure

No.	Actions Required	Responsibility	When
General			
1	No discharge of water to be undertaken without a signed Permit to Discharge.	All Site Staff	During construction
Water Quality Analysis			
1	Water quality analysis must be undertaken by trained and competent personnel using only approved and calibrated equipment on all water required to be discharged offsite.	Contractor's EM	During construction
2	Water quality analysis to be assessed against the discharge criteria established within the CSWMP (as updated with the EPL requirements once the EPL has been issued) and the criteria outlined in the individual trade waste approvals (where applicable).	Contractor's EM	During construction
3	Flocculate using gypsum or similar and/or add acid/alkali to adjust turbidity and/or pH to bring levels to within discharge criteria and re-test, or reapply flocculation until discharge criteria met. Dosage rates for gypsum to be determined on site by the Contractor's EM based on local site conditions. Dosage rate to be followed once determined.	Contractor's EM Site Supervisor	During construction
4	Once discharge criteria have been met, a permit to discharge must be obtained and signed by the Contractor's EM and Site staff undertaking the dewatering process. The discharge permit must be kept on site during the dewatering process.	Contractor's EM	During construction
5	Water quality monitoring results to be logged on the discharge permit.	Contractor's EM	During construction
Discharge			
1	The discharge locations (as shown in Figure 3-1 and 3-2 of the CSWMP) is to be inspected to ensure that the location is stabilised and additional erosion will not occur as a result of the discharging activities. Additional controls to be put in place if required.	Contractor's EM Site Supervisor	During construction
2	The dewatering process to be attended at all times and discharge point to be monitored at least hourly.	Site Supervisor	During construction
3	Water discharged to a sediment basin or storage tank must not cause any overflow of the basin or tanks to the surrounding work site or environment.	Site Supervisor	During construction

No.	Actions Required	Responsibility	When
4	<p>Water from dewatering activities may only be discharged to a waterway or trade waste if:</p> <ul style="list-style-type: none"> An approval has been given from a regulatory authority for discharge to trade waste (i.e. Local council or EPA) Water quality analysis indicates that the water to be discharged meets the appropriate criteria A Permit to Discharge has been fully completed and signed off. 	Contractor's EM	During construction
5	The Site Supervisor shall ensure the correct dewatering, treatment and discharge of water occurs.	Site Supervisor	During and after dewatering
Dewatering Technique			
1	The Construction Contractor will develop an Environmental Work Method Statement (EWMS) for dewatering based on the requirements of the plan. Dewatering will be undertaken in accordance with the EWMS and this plan.	Contractor's EM	During construction
2	Those responsible for dewatering will be trained in the dewatering technique developed in the EWMS and this plan.	Contractor's EM	During construction
3	Dewatering shall be undertaken with an electric or fuel power pump (e.g. flex drive pump), syphon, or High Efficiency Sediment (HES) basin, provided an appropriate risk assessment has been undertaken as part of the Dewatering Environmental Work Method Statement.	Site Supervisor	During construction
4	Where fuel powered pumps are used, the pump must be placed on a drip tray and water must be visually monitored for any oily film or residue by the operator or controller of the pump.	Site Supervisor	During construction
5	Pump intakes shall be positioned (or suspended) above the floor of the excavation or sump to eliminate sediment pickup.	Site Supervisor	During construction
6	Where watery slurry material is to be removed, a 'sucker truck' or sludge pump shall be used.	Site Supervisor	During construction
7	Where a permanent dewatering sump is to be setup, additional filtration shall be installed at the pump intake, where required. Detail of the additional filtration would be provided to the Environmental Representative for information, as required.	Site Supervisor	During construction
* For dewatering activities associated with contaminated soils, refer to the Contamination Management Plan.			

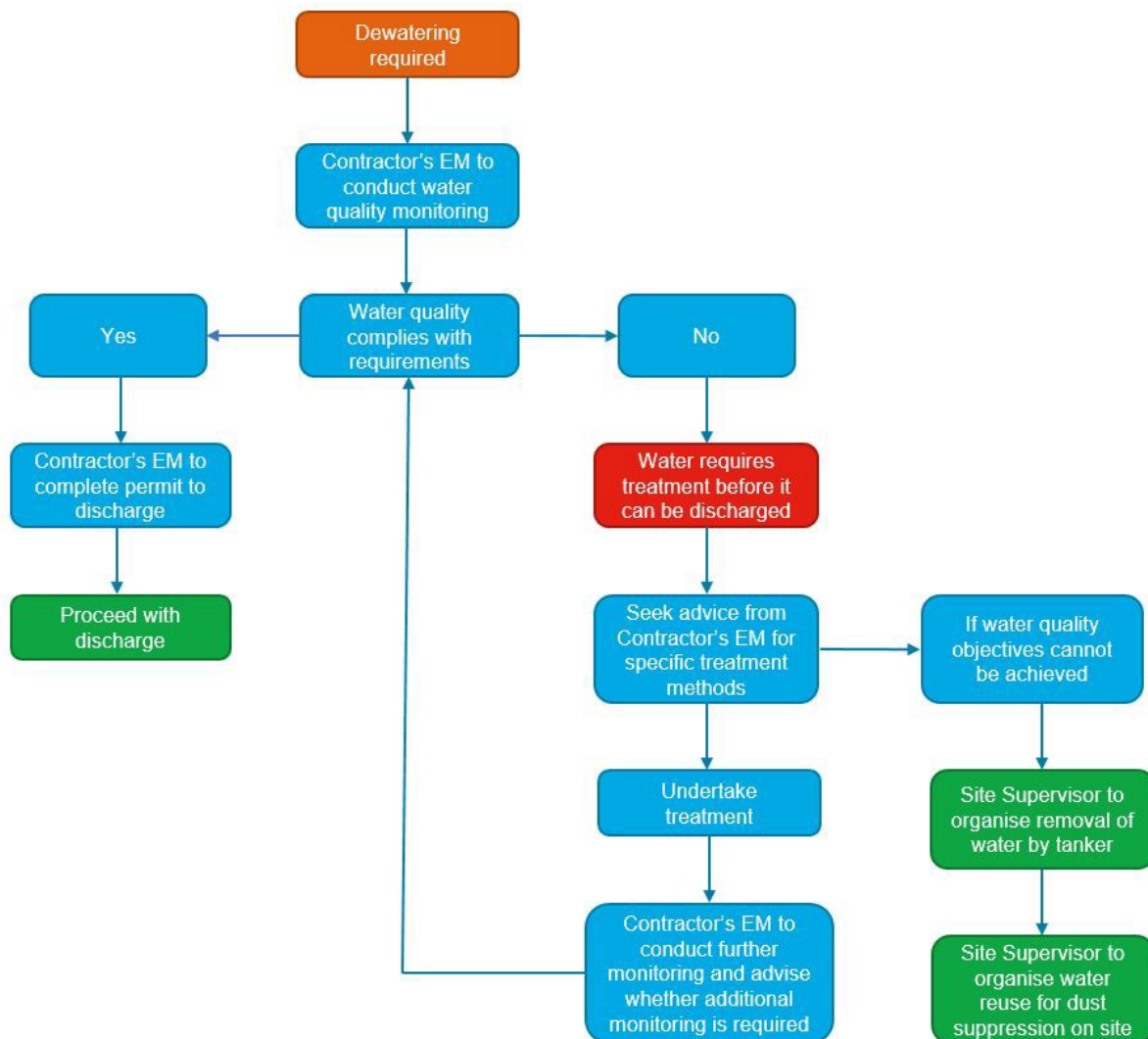


Figure 2-3 Dewatering Procedure Flowchart

2.2.5 Stockpiles

The approximate location of material stockpile areas are depicted in the Primary ESC Drawings (Appendix A). The stockpile locations have been selected to be centrally located to the Project site and will be located on impervious /compacted surfaces. Sediment fences have been nominated as the sediment control

measure located downstream of the stockpiles as per Blue Book Standard Drawing SD4-1 (Figure 2-4). For contaminated materials stockpiles refer to the Contamination Management Plan.

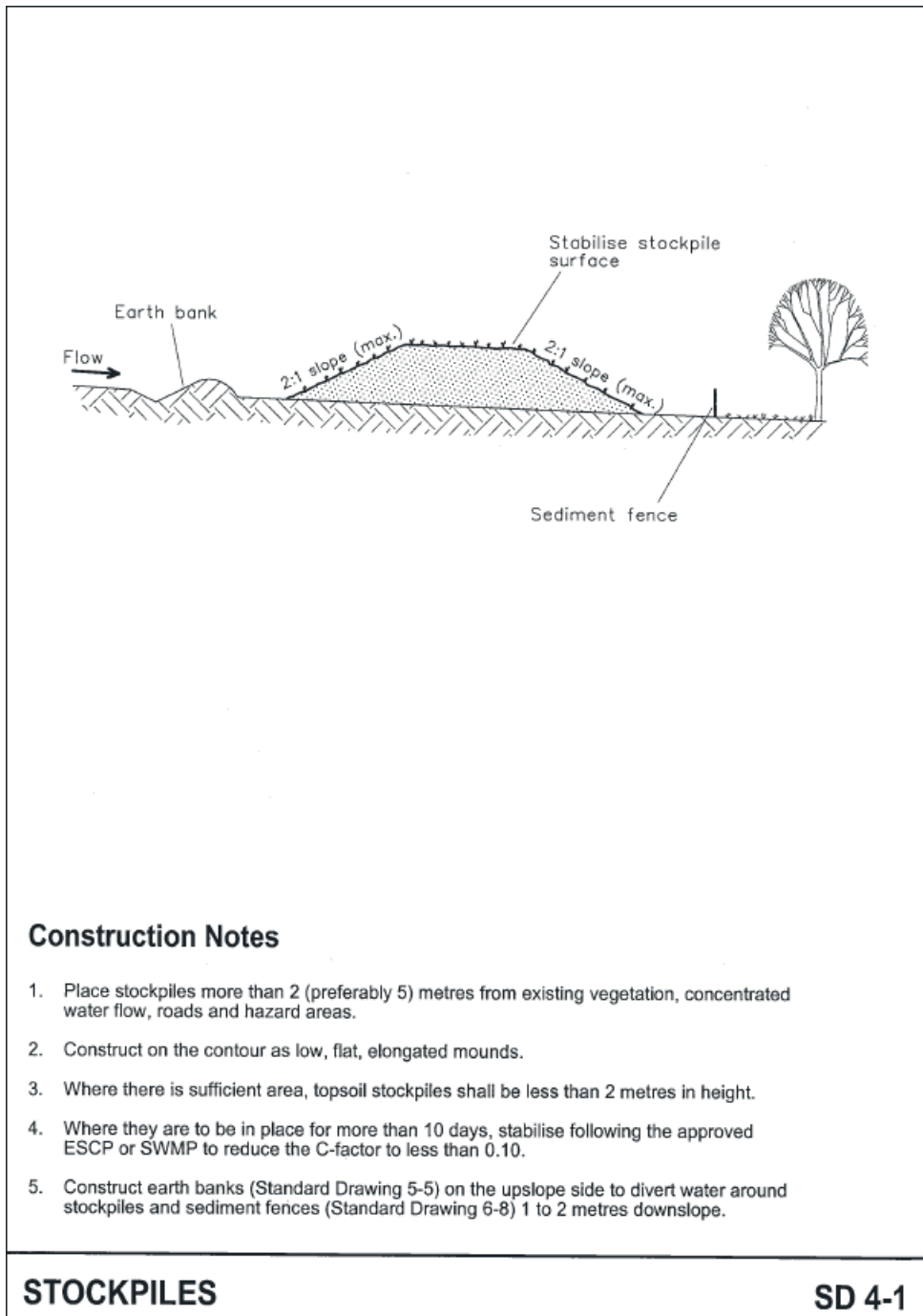


Figure 2-4 Standard Drawing for Stockpiles

2.2.6 Wash Down Bays and Stabilised Access

Stabilised access points are located in three locations within the construction footprint (Appendix A), located at the access point for the Project adjacent to Moorebank Avenue. Each stabilised access point with associated sediment controls will be constructed in accordance with Blue Book standard drawing SD6-14. The stabilised site access areas are to include rumble grids, wheel washes and vehicle washdown areas. Flows will be diverted to a sediment fence/earth bund (or similar) and ultimately flow to the nearest sediment basin.

2.3 Implementation

The installation of erosion and sediment control measures will be undertaken progressively prior to the commencement of construction and updated to reflect the Project's changing circumstances and requirements. All erosion and sediment control devices will be maintained in good working order. Repairs and maintenance will be undertaken as required, particularly following storm events.

The CЕСP and Primary ESC Drawings will be submitted to DP&E for approval. Progressive ESC drawings will be submitted to the Environmental Representative for information.

2.3.1 Inspections

Daily and Weekly Inspection Checklists have been provided in Appendix B of this CЕСP and is consistent with the International Erosion Control Association (IECA) Best Practice Erosion and Sediment Control documents. Inspections will be undertaken in accordance with these documents and the requirements outlined in the CSWMP and also to check for compliance against the Progressive ESC drawings.

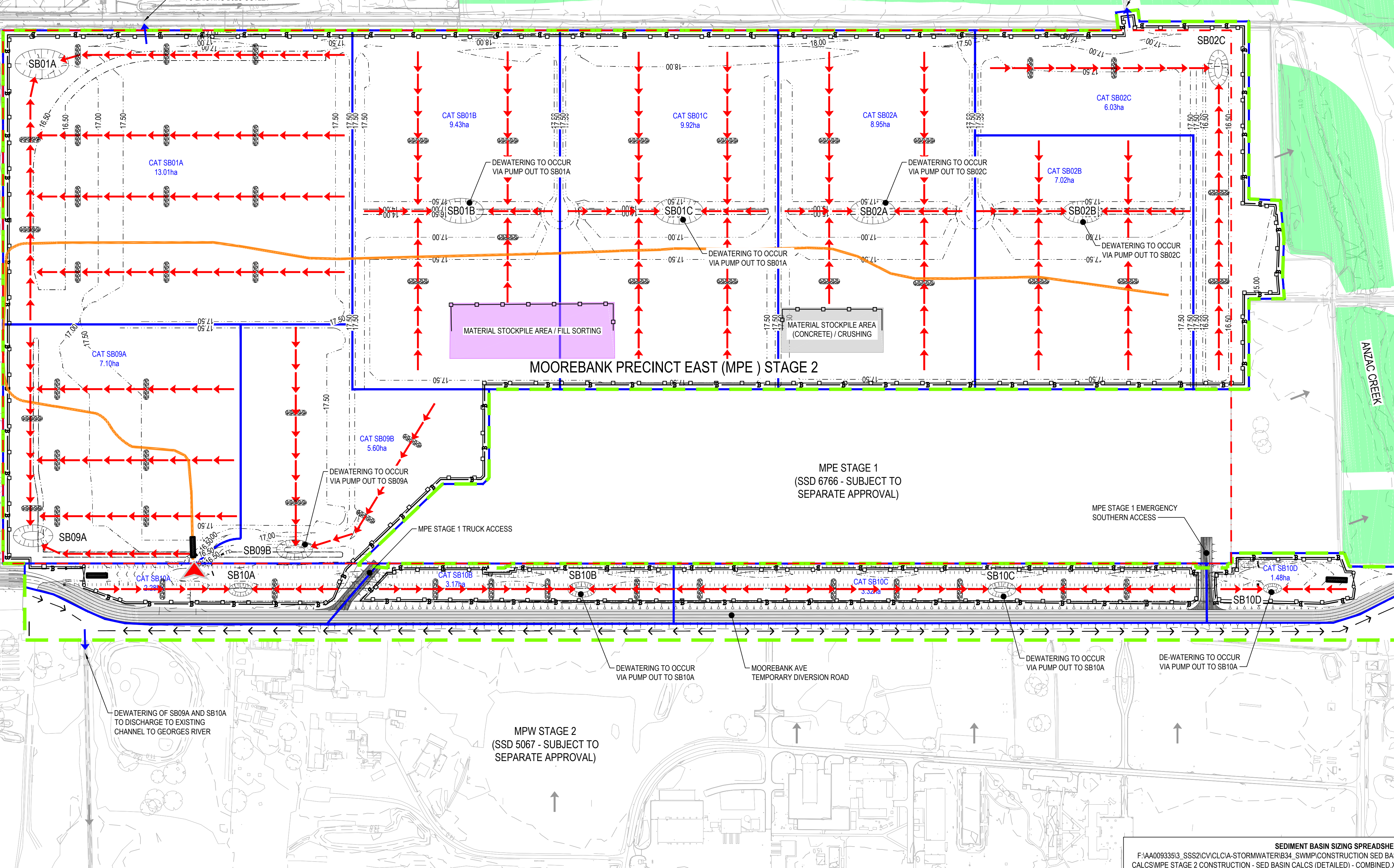
The Daily and Weekly Environmental Inspection Checklists (refer to Appendix B) will be used to maintain compliance and effectiveness of controls. Items that require action will be documented during environmental inspection and notified to the Site Supervisor. The Site Supervisor will be responsible for providing appropriate resources in terms of labour, plant and equipment to enable the items to be rectified in the nominated timeframes.

APPENDIX A - PRIMARY ESC DRAWINGS

NOTES

1. THE SITE CONTRACTOR SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE APPROPRIATE CONSIDERING ACTUAL SITE CONDITIONS AND CONSTRUCTION STAGING. EROSION AND SEDIMENT CONTROLS ARE TO BE IMPLEMENTED PRIOR TO ANY SOIL DISTURBANCE.
2. (SD X-X) REFERS TO STANDARD DETAIL PROVIDED IN THE LANDCOM 2004 PUBLICATION "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION" (REFER TO DRAWING SSS2-ARC-CV-SKC-0068).
3. SEDIMENT BASINS ARE TO HAVE MINIMUM DEPTH 1500mm. FLOCCULATE AS REQUIRED AS DESCRIBED IN DEWATERING PROCEDURE.
4. STABILISED SITE ACCESS AREAS WILL BE LOCATED THROUGHOUT THE PROJECT SITE AND ARE TO INCLUDE RUMBLE GRIDS, WHEEL WASHES AND VEHICLE WASHDOWN BAYS, OR A COMBINATION OF THE ABOVE AS REQUIRED.
5. STORMWATER INFRASTRUCTURE IS TO BE PROTECTED USING MESH & GRAVEL INLET FILTERS (SD 6-11) AND/OR GEOTEXTILE INLET FILTERS (SD-12) AS REQUIRED.

DEWATERING OF SB01A TO DISCHARGE TO EXISTING DILU OUTLET

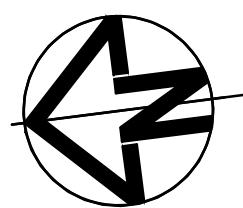
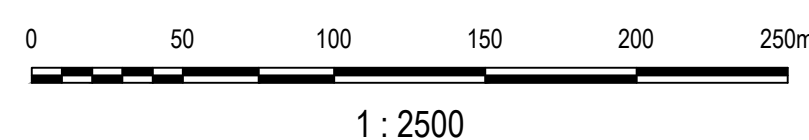


LEGEND

- MPE SITE BOUNDARY
- PROPOSED MOOREBANK PRECINCT EAST (MPE) STAGE 2 CONSTRUCTION BOUNDARY
- COMPOUND ACCESS ROAD
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED SEDIMENT FENCE (SD 6-8)
- PROPOSED KERB SIDE TURF STRIP (SD 6-13)
- PROPOSED 1.8m HIGH CHAINWIRE BARRIER FENCE WITH DUST CLOTH LOCATION TO BE CONFIRMED ON SITE BY CONTRACTOR
- PROPOSED SEDIMENT BASIN (SD 6-4) (WITH EMERGENCY SPILLWAY OUTLET)
- PROPOSED SEDIMENT BASIN CATCHMENT BOUNDARIES
- PROPOSED SEDIMENT BASIN CATCHMENT AREAS
- PROPOSED STABILISED SITE ACCESS (SD 6-14) WITH RUMBLE GRIDS, WHEEL WASHES, AND/OR VEHICLE WASHDOWN BAYS AS REQUIRED
- PROPOSED GATE
- PROPOSED EARTH BANK LOW FLOW (SD 5-5) & CHECK DAMS (SD 5-4) @ MAX. 100m SPACING
- INDICATIVE MATERIAL STOCKPILE / FILL SORTING AREA
- INDICATIVE MATERIAL STOCKPILE (CONCRETE) / CRUSHING AREA
- EXTERNAL FLOW DIRECTION
- PROPOSED SEDIMENT BASIN DISCHARGE LOCATION
- SITE ENTRY POINT
- PROPOSED EARTH BANK HIGH FLOW FOR DIVERSION OF EXTERNAL CLEAN WATER (SD 5-6)
- BIODIVERSITY OFFSET AREAS

Site area	SITE											
	SB01 A	SB01 B	SB01 C	SB02 A	SB02 B	SB02 C	SB09 A	SB09 B	SB10 A	SB10 B	SB10 C	SB10 D
Total catchment area (ha)	13.01	9.43	9.92	8.95	7.02	6.03	7.10	5.60	2.28	3.17	3.32	1.48
Disturbed catchment area (ha)	13.01	9.43	9.92	8.95	7.02	6.03	7.10	5.60	2.28	3.17	3.32	1.48
Soil analysis												
% sand (fraction 0.02 to 2.00 mm)	20	20	20	20	20	20	20	20	20	20	20	20
% silt (fraction 0.002 to 0.02 mm)	40	40	40	40	40	40	40	40	40	40	40	40
% clay (fraction finer than 0.002 mm)	40	40	40	40	40	40	40	40	40	40	40	40
Dispersion percentage												
% of whole soil dispersible	0	0	0	0	0	0	0	0	0	0	0	0
Soil Texture Group	F	F	F	F	F	F	F	F	F	F	F	F
Rainfall data												
Design rainfall depth (days)	5	5	5	5	5	5	5	5	5	5	5	5
Design rainfall depth (percentile)	80	80	80	80	80	80	80	80	80	80	80	80
x-day, y-percentile rainfall event	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
Rainfall intensity, 2-year, 6-hour storm	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
RUSLE Factors												
Rainfall erosivity (R-factor)	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540
Soil erodibility (K-factor)	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048
Slope length (m)	300	190	190	190	190	250	220	250	150	220	220	80
Slope gradient (%)	0.3	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.5	0.5	0.5
Length/gradient (LS-factor)	0.27	0.24	0.24	0.24	0.24	0.26	0.24	0.26	0.23	0.24	0.24	0.19
Erosion control practice (P-factor)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Ground cover (C-factor)	1	1	1	1	1	1	1	1	1	1	1	1
Calculations												
Soil loss (t/ha/yr)	43	38	38	38	38	41	38	41	36	38	38	30
Soil Loss Class	1	1	1	1	1	1	1	1	1	1	1	1
Soil loss (m ³ /ha/yr)	33	29	29	29	29	32	29	32	28	29	29	23
Sediment basin storage volume, m ³	73	47	49	45	35	32	35	30	11	16	17	6
Site	Cv	Rx-day, y-kile	Total catchment area (ha)	Settling zone volume (m ³)	Sediment storage volume (m ³)	Total basin volume (m ³)						
SB01A	0.50	24.4	13.01	1587	73	1660						
SB01B	0.50	24.4	9.43	1150	47	1197						
SB01C	0.50	24.4	9.92	1210	49	1259						
SB02A	0.50	24.4	8.95	1092	45	1137						
SB02B	0.50	24.4	7.02	856	35	891						
SB02C	0.50	24.4	6.03	736	32	768						
SB09A	0.50	24.4	7.10	866	35	901						
SB09B	0.50	24.4	5.60	683	30	713						
SB10A	0.50	24.4	2.28	278	11	289						
SB10B	0.50	24.4	3.17	387	16	403						
SB10C	0.50	24.4	3.32	405	17	422						
SB10D	0.50	24.4	1.48	181	6	187						

Issue	Description	Date
05	UPDATE TO INCORPORATE DPE COMMENTS	11/05/2018
04	UPDATE TO INCORPORATE DPE COMMENTS	26/04/2018
03	UPDATED TO INCORPORATE ER COMMENTS	28/03/2018
02	UPDATED TO INCORPORATE INTERNAL REVIEW COMMENTS	23/03/2018
01	ISSUE FOR INFORMATION	07/03/2018



Client

SIMTA SYDNEY INTERMODAL TERMINAL ALLIANCE

TACTICAL GROUP

Status: PRELIMINARY ONLY
NOT TO BE USED FOR CONSTRUCTION

Scales: 1:2500

Original Size: A1

Height Datum: AHD

Grid: MGA

File name: SSS2-ARC-CV-SKC-0067-ConstructionErosionAndSedimentControlPlan.dwg

Project: MOOREBANK PRECINCT EAST (MPE) STAGE 2

Title: CONSTRUCTION EROSION AND SEDIMENT CONTROL PLAN

ARCADIS

Arcadis Australia Pacific Pty Limited
Level 5, 141 Walker St
NORTH SYDNEY NSW 2060
ABN 76 104 485 289

Tel No: +61 2 8907 9000
Fax No: +61 2 8907 9001
arcadis.com

Project No: AA009335

Drawing No: SSS2-ARC-CV-SKC-0067- 05

APPENDIX B - DAILY AND WEEKLY INSPECTION CHECKLISTS

DAILY SITE INSPECTION CHECKLIST

Location: _____

Site Supervisor: _____

Date: _____

Signature: _____

Weather: _____

Item	Requirement*	Action Required (Y/N)
1	All tradespeople working on the site have been informed of the erosion and sediment control requirements of the site.	
2	All required builder identification, safety notices, and pollution (e.g. litter and sediment control) management signs are visible.	
3	The work site and all erosion and sediment control measures do not represent a safety risk to tradespeople or the public.	
4	Public roadways are clear of sediment.	
5	Entry/exit pads are clear of excessive sediment deposition and have adequate available void spacing to trap sediment	
6	The construction site is clear of litter and unconfined rubbish	
7	Long-term (> 10 days soil/sand stockpiles) are stabilised	
8	No visible dust leaving the project boundary and dust suppression being used	
9	Clean water diversions in place, ground stabilised and free of sediment/debris	
10	Earth batters have appropriate controls such as clean/dirty water diversion, ground cover etc. which will minimise potential for erosion	
11	Sediment controls have been installed as per approved ESC drawings.	
12	All sediment traps are free of excessive sediment deposition	
13	The site is adequately prepared for potential storms	
14	Adequate supplies of ESC materials exist	

* Obtained and consistent with the International Erosion Control Association (IECA) Best Practice Erosion and Sediment Control – Daily Site Inspection (Australasia November 2008)

WEEKLY SITE INSPECTION CHECKLIST

Location: _____

Site Supervisor: _____

Date: _____

Signature: _____

Weather: _____

Item	Requirement*	Action Required (Y/N)	Risk Rating
1	The erosion and sediment controls have been implemented as per the latest Progressive Erosion and Sediment Control drawings		
2	Clean water is being diverted away from disturbed areas		
3	Clean water diversion drains are stable		
4	Sediment fence is installed correctly as per blue book standard drawings		
5	Disturbed areas where no works are undertaken are properly covered or stabilised		
6	Areas of localised soil erosion have been identified and appropriate preventative measures implemented		
7	There are no areas of potential or actual concentrated flow that do not flow to sediment basins/traps or through sediment controls		
8	Slope lengths are maintained at appropriate lengths to slow flows down and minimise erosion		
9	Check dams are used within diversion drains where required to slow flows down and minimise erosion within the drains		
10	Surface protection (e.g. geofabric) is used in areas where appropriate (e.g. batter drains, culvert construction)		
11	Stockpiles are sited in low-hazard areas clear of watercourses and flood prone lands		
12	Cut-off drains on the upslope side and sediment fencing on the downslope side are in place for all stockpile areas within the site		
13	Topsoil stockpiles are 2 metres or less in height		
14	Sediment control measures are constructed as close to the potential source of sediment as possible		
15	Shakers, rubble pads or wash down areas have been installed		

Item	Requirement*	Action Required (Y/N)	Risk Rating
16	There is no mud on the roads outside of the project boundary		
17	Sediment fencing or equivalent is provided downslope of disturbed areas that can't be directed into a designated sediment basin		
18	Sediment basin volume markers intact and clearly visible		
19	Accumulated sediment is below 30 % of the sediment storage zone		
20	The basins have been emptied since the last rain event and restored to their design capacity (if not, explanation must be provided)		
21	All discharges are undertaken in accordance with the Dewatering Procedure		

* Obtained and consistent with the Roads and Maritime Service (RMS) Environmental inspection checklist and (IECA) Best Practice Erosion and Sediment Control – Daily Site Inspection (Australasia November 2008)

Weekly Inspection Action Risk Rating^

Action Risk Rating	Risk Level	Priority*	Examples
1	Extreme	Immediately – must be closed out on the day of inspection	Any actual or potential non-compliance with any EA conditions Adverse weather conditions are predicted that may result in above if controls are not adequate
2	High	Within 24 hours	Critical ERSED controls are damaged and need to be reinstated before a rain event
3	Medium	Within 3 working days	Dewatering of sediment basins required
4	Low	Within working 5 days	Stockpiles need to be stabilised
5	No Action Required	Not Applicable (N/A)	N/A

* Priority must be reviewed and revised particularly if adverse weather conditions are predicted

^ * Obtained from Roads and Maritime Service (RMS) Environmental inspection checklist

APPENDIX B EMERGENCY SPILL RESPONSE PROCEDURE

Emergency Spill Response

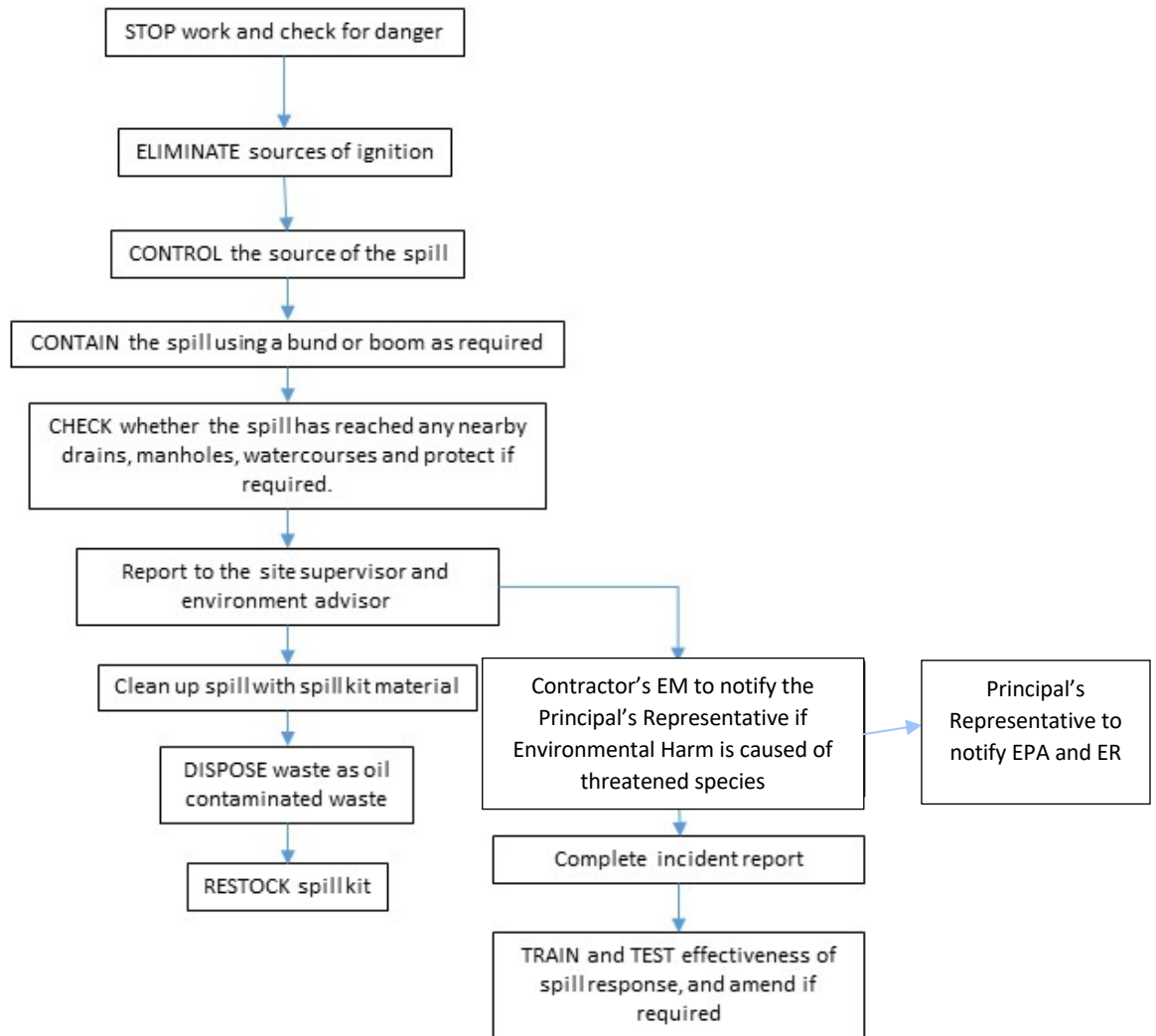


Figure B-1 Emergency Spill Response Procedure

APPENDIX C MEMORANDUM – COC B34(I)

DATE 2 January 2017

PROJECT Moorebank Precinct East (**MPE**) Stage 2 SSD Development Consent dated 31 January 2018 (**SSD 7628**)

SUBJECT Condition B34(i)

1 Purpose

Condition B34(i) of SSD 7628 requires that *Prior to early works, fill importation or any other surface disturbance, the Applicant must prepare a Soil and Water Management Plan (SWMP) to the satisfaction of the Secretary. The plan must form part of the CEMP required by condition C1 and must include...evidence that legal agreement has been obtained:*

- i. to discharge stormwater through adjacent sites;*
- ii. for any necessary upgrade works to be constructed;*
- iii. for undertaking maintenance activities;*
- iv. use of OSD basins on other sites, such as MPW site, for this development; and*
- v. evidence that an easement has been obtained or is currently in place to discharge and detain water through adjacent sites.*

The information provided below provides relevant information addressing condition B34(i) of SSD 7628.

2 Summary of legal agreements

2.1 Development and Operations Deed

In June 2015, Moorebank Intermodal Company (**MIC**) being a wholly owned Australian Government entity and Sydney Intermodal Terminal Alliance (**SIMTA**) being wholly owned by Qube Holdings Limited entered into an agreement for the development and operation of the Moorebank Precinct East (**MPE**) and Moorebank Precinct West (**MPW**) on a whole of precinct basis, known as the Precinct. Financial close under this agreement was in January 2017. From this date Qube has the role of the developer for the Precinct as a whole under a 99 year term. Each of the land owners, being Qube and the Commonwealth of Australia have placed their land under a 99 year lease for the sole purpose of facilitating the development. Attachment 1 to this memorandum includes Qube's ASX Announcement dated 25 January 2017 regarding the agreement.

The agreement, known as the Development and Operations Deed (**DOD**), entered into in June 2015 between MIC and Qube details the roles and responsibilities of MIC and Qube (referred to as Precinct Developer Co (**PDC**)) for the construction and operations of the Precinct over a 99 year period.

The documents that restrict how each of the landowners are able to deal with their land were entered into in January 2017 at financial close, and are the Landholders' Deed, Agreement for Lease Warehousing, Agreement for Lease IMEX Terminal and Agreement for Lease Interstate Terminal.

The land included within the DOD is owned by both the Commonwealth Government and Qube, and the DOD refers to this land in terms of MIPT Land and MIDIT Land. The land known as MIPT Land, is legally identified as Lot 1 DP1048263, which is the MPE Site. The land known as MIDIT Land is legally identified as:

- (1) Lot 1 DP1197707
- (2) Lot 100 DP1049508
- (3) Lot 4 DP1130937
- (4) Lot 4 DP1197707
- (5) Lot 2 DP1197707

MIDIT Land does not form part of the proposed subdivision within SSD 7628 but is adjacent land.

Alongside detailing the roles and responsibilities during construction and operations of the Precinct, the DOD requires that the above listed MIPT and MIDIT Land is to be subdivided. This was specifically a requirement of the Commonwealth Government in granting 99 year leases over the Precinct. The Landholders' Deed sets out the rights of PDC to require the landowners (being Qube and the Commonwealth) to grant of easements, including but not limited to easements to discharge and detain water and stormwater, both burdening and benefitting MPE in accordance with the requirements of the DOD. The relevant easements, leases and overarching DOD agreement ensure the preservation of the rights and obligations of each of the landowners and occupiers of the land during the operation of the Precinct.

2.2 Arrangements with Defence

In March 2003 the Commonwealth of Australia entered into the Deed of Agreement Pertaining to Services with the purchaser as part of the sale and lease back of the land comprised in Lot 1 DP1048263. This agreement provided for the continued provision of services to the MIPT Land across adjacent land owned by the Commonwealth. These services included drainage. Until such time as the owner of the MIPT Land has made alternative arrangements for the provisions of those services with a third party provider or an alternative arrangement is in place, the Commonwealth must continue to provide Qube with the benefit of the provision of services, including drainage across the Commonwealth owned land.

In December 2015 Qube entered into a Deed of Surrender of Lease (the terms of which are confidential) with the Commonwealth as part of the hand back of the MIPT Land from the Commonwealth. Amongst other things this Deed, required the Commonwealth to grant a number of easements for services in favour of the MIPT Land and third party providers.

3 Easements for drainage

3.1 Existing and future easements for drainage

- (1) *Existing easements for drainage*

Currently registered on title as benefitting the MPE Site are the following easements for drainage, copies of which are attached as **Attachment 2**:

- (a) Easement for sewage – L457700;
- (b) Easement to drain sewage – DP835590;

(c) Easement for services (which includes the discharge of sewage, sullage and other fluid wastes) – DP1050177; and

(d) Easement for sewer pump station – DP1050177.

(2) *Future easements for drainage*

Attachment 3 includes the form of easement instrument (Schedule 2 of the Landholders' Deed (Schedule 6 of the DOD)), which provides the wording to be used for future easements for services, support, drainage, access, etc. to be granted, including those to be granted in favour of MPE site burdening the adjacent MPW site. Clause 7 and 10 of the Landholders' Deed also provides for the future granting of easements as required by PDC/Qube, and details the obligation of the relevant landowners to grant those easements.

The DOD (clauses 28.16 to 28.18) and the Agreements for Lease (AFL) (clauses 9.12 to 9.14 in the Warehouse AFL, clauses 9.11 to 9.13 of the IMEX Terminals AFL and similar corresponding provisions in the Interstate Terminal AFL), to which PDC/Qube is a party, provide the right for the above noted easements to be granted and impose an obligation that the easements must be in place, or agreements for them are in place (clause 23.7(b)(5) of the DOD).

The aforementioned information, including relevant attachments afford sufficient detail to demonstrate that there is an agreement in place which secures property rights, registered easements or obligations for granting easement regarding the discharge and retention of drainage across land adjacent to the MPE Site.

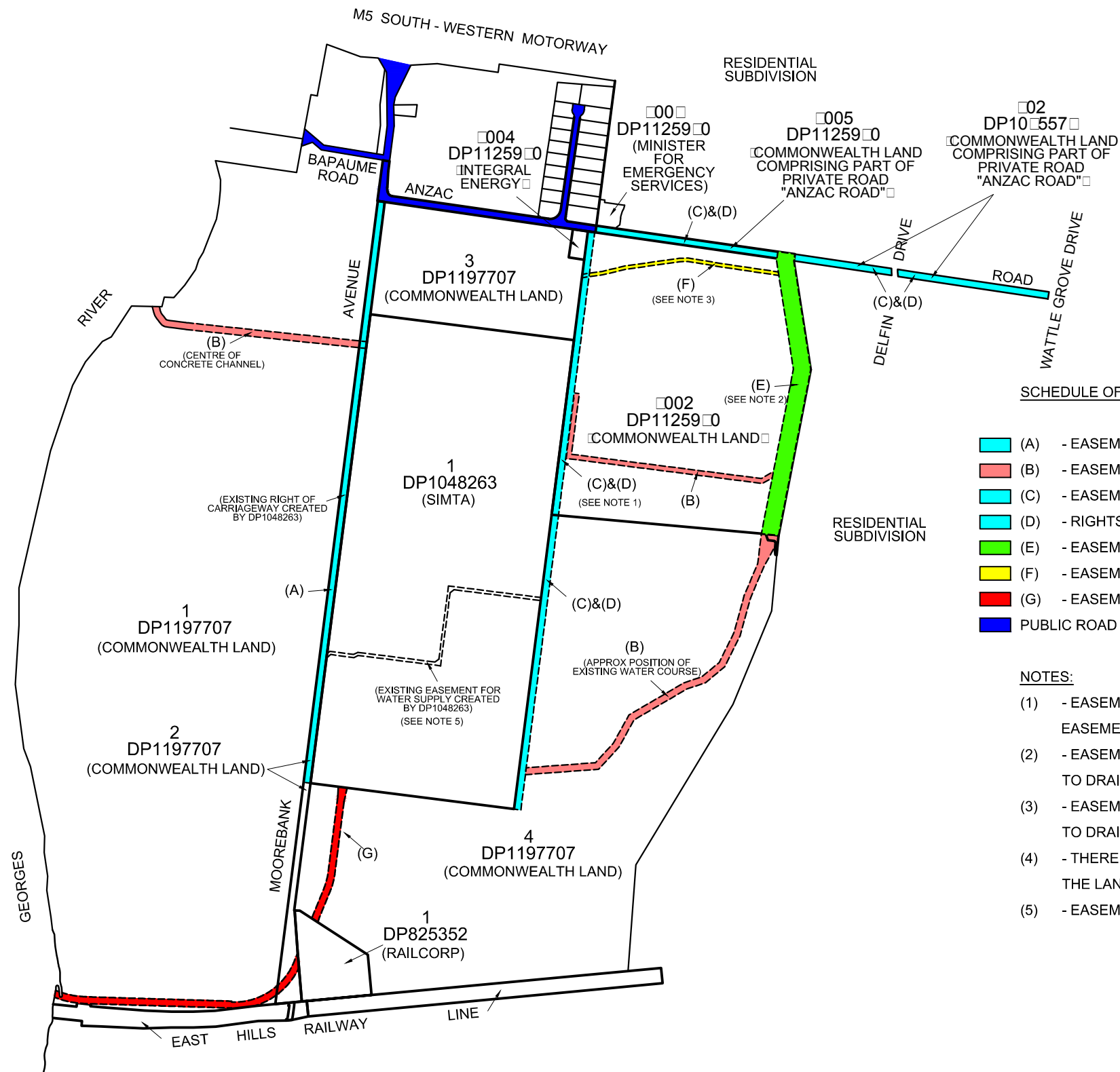
Attachment 4 includes the draft plan of easement showing the easements to be granted by the Commonwealth in favour of the MIPT Land and relevant third party providers. The form of wording for those easements are still being negotiated but generally provide the usual rights for drainage or standard wording as required by the relevant third party provider.

3.2 Ongoing maintenance

The DOD specifically outlines that PDC/Qube is the responsible entity for the ongoing maintenance for the Precinct, including the MPE Site. **Attachment 5** provides further information to demonstrate that PDC is the entity responsible for constructing and operating the Precinct under the DOD and is also responsible for the ongoing maintenance of the Precinct, including but not limited to the drainage facilities within the Precinct, during operations. The maintenance obligations can be found in clause 37 of the DOD as well as in the relevant leases granted to the PDC entities for component parts of the Precinct (for example clauses 11.6 and 11.7 of the form of Stage Ground Lease which is granted once a parcel of MIPT or MIDIT Land has been subdivided).

The extracts attached to this memorandum have been provided with this memorandum to adequately establish that PDC/Qube is responsible for the ongoing maintenance for the Precinct, including the MPE Site.

In addition to the obligations under the DOD the terms of the easements to be granted in favour of the MPE Site and relevant third party providers will also make provision for who will be responsible for the ongoing maintenance of the drainage facilities.



SCHEDULE OF EXISTING / PROPOSED EASEMENTS

- (A) - EASEMENTS FOR SERVICES AND DRAINAGE VARIABLE WIDTH
- (B) - EASEMENTS TO DRAIN WATER 20 WIDE AND VARIABLE
- (C) - EASEMENTS FOR SERVICES AND DRAINAGE 20 WIDE
- (D) - RIGHTS OF CARRIAGEWAY 20 WIDE & VARIABLE
- (E) - EASEMENTS TO DRAIN WATER 50 WIDE
- (F) - EASEMENTS TO DRAIN WATER 10 WIDE - TO BE RELEASED
- (G) - EASEMENTS FOR RAIL CORRIDOR 15 WIDE AND VARIABLE
- PUBLIC ROAD

NOTES:

- (1) - EASEMENTS (C) & (D) ARE LOCATED IN THE SAME POSITION AS EXISTING EASEMENT FOR ACCESS AND SERVICES 20 WIDE CREATED BY DP1125930
- (2) - EASEMENTS (E) LOCATED IN THE SAME POSITION AS EXISTING EASEMENT TO DRAIN WATER 50 WIDE CREATED BY DP1125930
- (3) - EASEMENTS (F) LOCATED IN THE SAME POSITION AS EXISTING EASEMENT TO DRAIN WATER 10 WIDE CREATED BY DP1125930 - TO BE RELEASED
- (4) - THERE ARE NUMEROUS OTHER EASEMENTS THAT BENEFIT OR BURDEN THE LAND THAT HAVE NOT BEEN SHOWN ON THIS DRAWING
- (5) - EASEMENT FOR WATER SUPPLY - TO BE RELEASED

IMPORTANT NOTE:
This plan is prepared for Tactical Project Management from a combination of field survey and existing records for the purpose of designing new constructions on the land and should not be used for any other purpose.
The title boundaries shown hereon were not marked by the author at the time of survey and have been determined by plan dimensions only and not by field measurement.

07	22.07.2016	EASEMENTS REVISED DESIGN 160628		PWC
06	18.11.2015	NOTATIONS REVISED		PWC
05	12.01.2015	EASEMENTS AMENDED LOT 002 DP112590	BC	PWC
04	02.02.2015	NOTE 5 ADDED		PWC
03	29.01.2015	EASEMENTS AMENDED		PWC
02	22.01.2015	ADDED RECENT SUBDIVISION DP1197707	BC	PWC
REVISION	DATE	DESCRIPTION	12D REF	APPROVED



PROJECT:	SIMTA - MOOREBANK
PLAN SHOWING SELECTED EXISTING AND PROPOSED EASEMENTS	
CLIENT:	TACTICAL PROJECT MANAGEMENT

SURVEYED	DRAWN A.H.	CHECKED	PASSED
SCALE 1:15,000		SHT 1 OF 1 SHTS	
DRAWING NUMBER		REV	
115804501		07	

A





25 January 2017

QUBE HOLDINGS LIMITED
ABN 14 149 723 053

Level 27, 45 Clarence Street
Sydney NSW 2000

T: +61 2 9080 1900
F: +61 2 9080 1999

ASX Announcement

qube.com.au

Qube and MIC reach financial close

Please find attached Qube Holdings Limited and Moorebank Intermodal Company joint media release.

Further Enquiries:

Media
Dan Blyde
+61 0400 001 915

Paul Lewis
Chief Financial Officer
+61 2 9080 1903

Moorebank Intermodal Company and Qube reach financial close

Sydney, 25 January 2017

The Agreement between Moorebank Intermodal Company and the Sydney Intermodal Terminal Alliance (SIMTA) for the development and operation of the Moorebank Intermodal Terminal Precinct has reached financial close.

SIMTA is owned by Qube Holdings, one of Australia's leading freight logistic companies, following the acquisition of Aurizon's interests in the land and project on 23 December 2016. Qube will develop and operate the open access freight terminal and warehousing precinct under a 99-year lease on the combined Commonwealth and Qube owned sites.

Moorebank Intermodal Company signed the agreement with SIMTA in June 2015 for the development of the Moorebank Intermodal Terminal Precinct, which merged the SIMTA and Commonwealth intermodal terminal proposals into one. Moorebank Intermodal Company will continue to be the Commonwealth entity responsible for facilitating the precinct's development.

Dr Kerry Schott, Chair of the Moorebank Intermodal Company, said the precinct would deliver significant benefits to south-west Sydney and the broader New South Wales economy.

"During construction, over 1,300 jobs will be created and once operations are at full capacity the site will employ approximately 6,800 people," Dr Schott said.

"Together with the recently announced Commonwealth investment in airport infrastructure at Badgerys Creek, the Moorebank Intermodal Terminal will be a major economic contributor to south-west Sydney."

Other economic, environmental and community benefits will include:

- ☐ reducing constraints on container volumes moving through Port Botany;
- ☐ relieving traffic congestion on Sydney's roads and the nation's highways;
- ☐ reducing greenhouse gas emissions by cutting container truck movements and using more environmentally friendly automated technology on site; and
- ☐ enabling faster freight times and reduced costs to business and consumers.

The precinct will increase the proportion of shipping containers travelling by rail, remove thousands of heavy truck movements from Sydney's roads and the nation's highways every day, and increase the capacity and efficiency of Port Botany.

Moorebank was identified as a priority location for a freight terminal in 2004 and, in October 2016, was included on Infrastructure Australia's priority list for national infrastructure projects. The site has a direct rail link to Port Botany and the interstate rail freight network which, along with its proximity to major motorways, make it ideal for an intermodal facility.

The precinct will include an import-export (IMEX) freight terminal with eventual annual throughput capacity of 1.05 million TEU, and an interstate terminal with capacity for 500,000 TEU.

Qube Holdings' Managing Director, Maurice James, said the Moorebank precinct would transform the freight and logistics supply chain along the east coast.

“The Moorebank development is certainly a once in a lifetime opportunity and Qube is pleased to have reached agreement with Moorebank Intermodal Company to deliver this important piece of national infrastructure,” Mr James said.

“Linking one of the nation’s busiest ports by rail to an inland facility with the sheer scale and location benefits of the Moorebank site is a game changer that will deliver huge long term benefits to both business and consumers,” he said.

Stage 1 of the project, which received planning approval in December 2016, will see the construction of the IMEX terminal with initial capacity of 250,000 TEU, rail links to the Southern Sydney Freight Line, and container processing areas. The first stage of the interstate terminal will follow with subsequent stages to be developed in line with demand (subject to future planning approvals).

The Commonwealth will invest around \$370 million in the development, including funding the rail connection between the terminal and the Southern Sydney Freight Line and land preparation works.

Qube will develop, own and operate the terminals and has the development, property and asset management rights for associated warehousing. The precinct will include up to 850,000 sqm of integrated warehousing when fully developed.

The IMEX terminal is expected to start operating in late 2018, and the interstate terminal in early 2020.

More information about the precinct is available at www.micl.com.au or www.simta.com.au.

Media contacts:

For Moorebank Intermodal Company
Sam Deans (Newgate Communications)
[0449 988 209](tel:0449988209)

For Qube
Dan Blyde
0400 001 915

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1/1048263

SEARCH DATE -----	TIME ----	EDITION NO -----	DATE ----
3/1/2018	7:25 AM	10	10/5/2017

LAND

LOT 1 IN DEPOSITED PLAN 1048263
AT HOLSWORTHY
LOCAL GOVERNMENT AREA LIVERPOOL
PARISH OF HOLSWORTHY COUNTY OF CUMBERLAND
TITLE DIAGRAM DP1048263

FIRST SCHEDULE

TRUST COMPANY LIMITED (T AD630952)

SECOND SCHEDULE (12 NOTIFICATIONS)

- 1 LAND EXCLUDES MINERALS AFFECTING THE PART SHOWN DESIGNATED (D) IN THE TITLE DIAGRAM
- 2 L457700 EASEMENT FOR SEWAGE APPURTENANT TO THE PART(S) OF THE LAND SHOWN SO BENEFITED IN THE TITLE DIAGRAM
- 3 DP802712 RIGHT OF CARRIAGEWAY 20.12 WIDE & VARIABLE APPURTENANT TO THE PART(S) OF THE LAND SHOWN SO BENEFITED IN THE TITLE DIAGRAM
- 4 DP835590 EASEMENT TO DRAIN SEWAGE 5 WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
- 5 DP1048263 RIGHT OF CARRIAGEWAY 20.115 METRE(S) WIDE AND VARIABLE APPURTENANT TO THE LAND ABOVE DESCRIBED
DP1075886 RELEASED IN SO FAR AS IT AFFECTS MOOREBANK AVE AND DESIGNATED (U) IN THE TITLE DIAGRAM
- 6 DP1048263 EASEMENT FOR WATER SUPPLY 7.5 METRE(S) WIDE AND VARIABLE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 7 DP1050177 EASEMENT FOR SERVICES 22 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
- 8 DP1050177 EASEMENT FOR SEWER PUMP STATION 25 WIDE AND VARIABLE APPURTENANT TO THE LAND ABOVE DESCRIBED
- 9 AM122660 LEASE TO MOOREBANK PRECINCT NOMINEES PROPRIETARY LIMITED EXPIRES: 22/1/2116.
AM336624 LEASE OF LEASE AM122660 TO QUBE RE SERVICES (NO.2) PTY LIMITED OF BUILDINGS 53 AND 54, MOOREBANK LOGISTICS PARK, 400 MOOREBANK AVENUE, MOOREBANK. EXPIRES: 21/1/2116.
AM336625 LEASE OF LEASE AM122660 TO QUBE RE SERVICES (NO.2) PTY LIMITED OF BUILDING 82, MOOREBANK LOGISTICS PARK, 400 MOOREBANK AVENUE, MOOREBANK.

END OF PAGE 1 - CONTINUED OVER

PRINTED ON 3/1/2018

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1/1048263

PAGE 2

SECOND SCHEDULE (12 NOTIFICATIONS) (CONTINUED)

-
- EXPIRES: 21/1/2116.
- * AM979070 LEASE OF LEASE AM122660 TO QUBE RE SERVICES (NO. 2) PTY LIMITED OF BUILDINGS 49 & 50, MOOREBANK LOGISTICS PARK, 400 MOOREBANK AVENUE, MOOREBANK. EXPIRES: 21/1/2116.
- * AM979071 LEASE OF LEASE AM122660 TO QUBE RE SERVICES (NO. 2) PTY LIMITED OF BUILDING 51, MOOREBANK LOGISTICS PARK, 400 MOOREBANK AVENUE, MOOREBANK. EXPIRES: 21/1/2116.
- 10 AM123458 EASEMENT FOR ACCESS AFFECTING THE WHOLE OF THE LAND ABOVE DESCRIBED
- 11 AM123459 EASEMENT FOR ACCESS APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE WHOLE OF LOT 1 IN DP1197707
- 12 DP1230086 EASEMENT FOR RAILWAY LINE VARIABLE WIDTH (LIMITED IN STRATUM) APPURTENANT TO THE LAND ABOVE DESCRIBED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

PRINTED ON 3/1/2018

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register.

© Office of the Registrar-General (2018)

SAI Global Property Division an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with section 96B(2) of the Real Property Act 1900.



No. _____

69 JUN 18 AM 19 31
New South Wales

11/24/7 R.P. 13A
Fees:—
Lodgment
Endorsement
\$52 00.
10 6 69

MEMORANDUM OF TRANSFER AND GRANT OF EASEMENT.
(REAL PROPERTY ACT, 1900.)

-I- THE HOUSING COMMISSION OF NEW SOUTH WALES

This form may be used where no restrictive covenants are imposed or easements created where the simple transfer form is unsuitable.

Trusts must not be disclosed in the transfer.

Printing or handwriting in this instrument should not extend to any margin. Handwriting should be clear and legible and permanent black non-copying ink.

All blanks should be ruled up before signing.

If less estate, strike out "in fee simple" and interline the required alteration.

_____ (herein called transferor)
being registered as the proprietor of an estate in fee simple in the land hereinafter described, subject, however, to such encumbrances, liens and interests as are notified hereunder, in consideration of
One dollar (\$1.00)
- (the receipt whereof is hereby acknowledged) paid to **it** by

THE COMMONWEALTH OF AUSTRALIA

and grant
doth hereby transfer/to

Show in BLOCK LETTERS the full name, postal address and description of the persons taking, and if more than one, whether they hold as joint tenants or tenants in common.

THE COMMONWEALTH OF AUSTRALIA

(herein called transferee)

The description may refer to the defined residue of the land in a certificate or grant (e.g. "And being residue after transfer number ") or may refer to parcels shown in Town or Parish Maps issued by the Department of Lands or shown in plans filed in the Office of the Registrar General (e.g. "and being Lot section D.P. ").

Unless authorised by Reg. 53, Conveyancing Act Regulations, 1961, a plan may not be annexed to or endorsed on this transfer form.

ALL such its Estate and Interest in ALL THE land mentioned in the schedule following:—

County	Parish	Reference to Title			Description of Land (if part only)
		Whole or Part	Vol.	Fol.	
CUMBERLAND	HOLSWORTHY	PART	9637	145 - 159 197, 198, 201, 202, and 218 - 232 incl.	Those parts of Lots 72-86 inclusive 124, 125, 128 and 129 in DP. 219461 those parts of Lots 145-159 inclusive in DP. 219463
			9638	117 - 122 incl. and 156.	and those parts of lots 294-299 inclusive and 333 in DP. 219462 as shown on the said plans as "SITE OF PROPOSED EASEMENT FOR SEWERAGE 12 FEET WIDE" (which are hereinafter collectively called "the servient tenement").

099

~~And the transferee covenant(s) with the transferor.~~

In common with the Crantor and others having similar right full and free right as appurtenant to the land contained in Certificate of Title Volume 3788 Folio 87 from time to time and at all times hereafter by means of pipes to drain sewage and other waste material and fluid in any quantities across and through the servient tenement together with the right to use, any line of pipes already laid within the servient tenement for the purposes of drainage of sewage or any pipe or pipes in replacement or in substitution therefor and where no such line of pipes exists, to lay, place and maintain a line of pipes of sufficient internal diameter beneath the surface of the servient tenement and together with the right for the Transferee and every person authorised by it, with any tools, implements, or machinery, necessary for the purpose, to enter upon the servient tenement and to remain therefor any reasonable time for the purpose of laying, inspecting, cleansing, repairing, maintaining, or renewing any such line of pipes or any part thereof and for any of the aforesaid purposes to open the soil of the servient tenement to such extent as may be necessary provided that the Transferee and persons authorised by it will take all reasonable precautions to ensure as little disturbance as possible to the surface of the servient tenement and will restore that surface as nearly as practicable to its original condition.

d Strike out if unnecessary or suitably adjust,

(i) if any easements are to be created or any exceptions to be made; or

(ii) if the statutory covenants implied by the Act are intended to be varied or modified.

Covenants should comply with the provisions of Section 88 of the Conveyancing Act, 1919.

1. AND the Transferor for itself its successors and assigns HEREBY COVENANTS with the Transferee its successors and assigns that -

- (a) In addition to the existing uses to which the within easement to drain sewage is being put by the Transferee the Transferee shall have free use of the aforesaid easement as may be required at any time to - - - - - drain sewage from -

- (i) Anzac Village pumping stations;
- (ii) The probable future cottage or building area south and east of the Transferor's subdivision; and
- (iii) Possible future development of the adjacent Rifle Range area and the area southwest of the Transferor's subdivision.

PROVIDED HOWEVER that the free use of the easement will cease in the event of the sewerage system being taken over by the Metropolitan Water Sewerage and Drainage Board (hereinafter referred to as "the Board").

- (b) In the event of the Board constructing sewers within the adjoining land of the Transferor the Transferor will grant to the Transferee free of cost an easement to drain sewage to all such sewers including branch sewers.

2. AND the Transferee for itself its successors and assigns HEREBY COVENANTS with the Transferor its successors and assigns that -

- (i) that it will pay to the Board for any period during which any sewer constructed upon the servient tenement and used by the Transferee forms part of the sewerage system maintained by the Board all normal rates and charges imposed by the said Board in relation to the Transferee's use of any such sewer.
- (ii) that it will not cause to be conducted into any sewer within the servient tenement a quantity of sewage which exceeds in relation to that sewer the quantity of sewage allowed for by the said Board in the design of sewers.

3. AND IT IS HEREBY AGREED AND DECLARED that the Transferee grants to the Transferor full and free right at its own cost in all respects to connect and keep connected the sewage from its 650 cottage allotments within its existing subdivision to the sewer presently constructed upon the common boundary of the ~~ENCUMBRANCES, &c., REFERRED TO.~~

A very short note will suffice.

3.

southeastern part of the servient tenement with the adjoining land of the Transferee and to convey to the said sewer such volume of sewage as may be discharged from the abovementioned allotments and such additional volume of sewage as the Transferee may from time to time determine PROVIDED HOWEVER the Transferor shall pay to the Transferee while such right to connect is exercised by the Transferor an amount (as is mutually agreed) by way of annual contribution payable quarterly in advance the first of such payments being due and payable on 1st July 1962 in respect of every cottage served by such connection and such annual contributions shall be reviewed at the end of each five yearly period the first of such reviews being due on 1st July 1967 AND in the event of any dispute arising as to the amounts payable by the Transferor under this provision the matter shall be determined by two arbitrators or their umpire in accordance with the provisions of the Arbitration Act, 1902 AND FURTHER PROVIDED that the Transferor will keep and maintain all house connections pipes services apparatus and other things appertaining thereto in good order and condition and shall indemnify the Transferee from and against all damage to the Transferee's said sewer treatment works or other services connected therewith and the cost of repairing or making good the same.

ENCUMBRANCES, &c., REFERRED TO.

Easement created by Transfer J860077

B

If the Transferor or Transferee signs by a mark, the attestation must state "that the instrument was read over and explained to him, and that he appeared fully to understand the same."

Execution in New South Wales may be proved if this instrument is signed or acknowledged before the Registrar General, or Deputy Registrar General, or a Notary Public, a J.P. or Commissioner for Affidavits, to whom the Transferor is known, otherwise the attesting witness should appear before one of the above functionaries who having received an affirmative answer to each of the questions set out in Sec. 108 (1) (b) of the Real Property Act should sign the certificate at the foot of this page.

Execution may be proved where the parties are resident:—

(a) In any part of the British dominions outside the State of New South Wales by signing or acknowledging before the Registrar General or Recorder of Titles of such Possession, or before any Judge, Notary Public, Justice of the Peace for New South Wales, or Commissioner for taking affidavits for New South Wales, or Mayor or Chief Officer of any municipal or local government corporation of such part, or Justice of the Peace for such part, or the Governor, Government Resident, or Chief Secretary of such part or a British Consular Officer or Australian Consular Officer exercising his functions in that part or such other person as the Chief Justice of New South Wales may appoint.

(b) In the United Kingdom by signing or acknowledging before the Mayor or Chief Officer of any corporation or a Notary Public.

(c) In any foreign place by signing or acknowledging before (i) a British Consular Officer (which includes a British Ambassador, Envoy, Minister, Chargé d'Affaires, Secretary of Embassy or Legation, Consul-General, Acting Consul-General, Consul, Acting Consul, Vice-Consul, Acting Vice-Consul, Pro-Consul, Consular Agent and Acting Consular Agent), (ii) an Australian Consular Officer (which includes an Ambassador, High Commissioner, Minister, Head of Mission, Commissioner, Chargé d'Affaires, Counsellor or Secretary at an Embassy, High Commissioner's Office or Legation, Consul-General, Consul, Vice-Consul, Trade Commissioner and Consular Agent and includes a person appointed to hold or act in the office of Counsellor, Official Secretary or Assistant Official Secretary at the Australian Commissioner's Office in Singapore or of Secretary at the Australian Military Mission in Berlin or of Agent General in London of the State of New South Wales or of Secretary, N.S.W. Government Offices, London), who should affix his seal of office, or the attesting witness may make a declaration of the due execution thereof before one of such persons (who should sign and affix his seal to such declaration), or such other person as the said Chief Justice may appoint.

Strike out unnecessary words. Add any other matter necessary to show that the power is effective.

To be signed by Registrar General, Deputy Registrar General, a Notary Public, J.P., Commissioner for Affidavits, or other functionary before whom the attesting witness appears. Not required if the instrument itself is signed or acknowledged before one of these parties.

849 Signed at Sydney
Signed in my presence by the transferor
CORNELIUS JOSEPH DUNN
WHO IS PERSONALLY KNOWN TO ME
P. J. Jones, Solicitor,
Sydney.

the twelfth day of June 1969.
SIGNED by me CORNELIUS JOSEPH DUNN as Delegate of the
Housing Commission of New South Wales and I hereby certify
that I have no notice of the revocation of such delegation.
gjo Transferor.*

for and on behalf of THE
Signed in my presence by the transferee
COMMONWEALTH OF AUSTRALIA by a
WHO IS PERSONALLY KNOWN TO ME
person holding or performing the
duties of the office of Assistant
Deputy Crown Solicitor, Deputy
Crown Solicitor's Office, New South
Wales, in the presence of -

J. Whittland
An Officer of the Attorney
General's Department.

† Accepted, and I hereby certify this Transfer to be correct
for the purposes of the Real Property Act.

J. McBeuley
Transferee(s).

MEMORANDUM AS TO NON-REVOCATION OF POWER OF ATTORNEY.

(To be signed at the time of executing the within instrument.)

Memorandum where by the undersigned states that he has no notice of the revocation of the Power of Attorney registered No. _____
Miscellaneous Register under the authority of which he has just executed the within transfer.*

Signed at _____ the _____ day of _____ 19 ____
Signed in the presence of— _____

CERTIFICATE OF J.P., &c., TAKING DECLARATION OF ATTESTING WITNESS.*

Appeared before me, at _____, the _____ day of _____, one thousand
nine hundred and _____ the attesting witness to this instrument,
and declared that he personally knew _____, the person
signing the same, and whose signature thereto he has attested, and that the name purporting to be such
signature of the said _____ is _____ own handwriting, and
that _____ he was of sound mind, and freely and voluntarily signed the same.

* If signed by virtue of any power of attorney, the original power must be registered in the Miscellaneous Register, and produced with each dealing, and the memorandum of non-revocation on back of form signed by the attorney before a witness.

† N.B.—Section 117 requires that the above Certificate be signed by each Transferee or his Solicitor or Conveyancer, and renders any person falsely or negligently certifying liable to a penalty; also to damages recoverable by parties injured. Acceptance by the Solicitor or Conveyancer (who must sign his own name, and not that of his firm) is permitted only when the signature of the Transferee cannot be obtained without difficulty, and when the instrument does not impose a liability on the party taking under it. When the instrument contains some special covenant by the Transferee or is subject to a mortgage, encumbrance or lease, the Transferee must accept personally.

No alterations should be made by erasure. The words rejected should be scored through with the pen, and those substituted written over them, the alteration being verified by signature or initials in the margin, or noticed in the attestation.

Phone No. _____

(N.B.—Before execution read marginal note.)

1.

This discharge is appropriate to a transfer of part of the land in the Mortgage. The mortgagee should execute a formal discharge where the land transferred is the whole of or the residue of the land in the Certificate of Title or Crown Grant or is the whole of the land in the mortgage.

who is personally known to me

Mortgagee.

-To be filled in by person lodging dealing


1. 40 Cost. pred
2.
3. 41 Cost Pion
4.
5.
6.
7.

Received Docs.

11/1/67
NOS

Receiving Clerk

Indexed	MEMORANDUM OF TRANSFER 9 Grant of Easement for Sewage
Checked by <i>[Signature]</i>	Particulars entered in Register Book 8.7.1969
Passed (in S.D.B.) by <i>[Signature]</i>	at 4pm <i>[Signature]</i>
Signed by <i>[Signature]</i>	Registrar General



PROGRESS RECORD

PROGRESS RECORD	
	Initials Date
Sent to Survey Branch	
Received from Records	
Draft written ..	
Draft examined ..	
Diagram prepared ..	
Diagram examined ..	
Draft forwarded ..	
Supt. of Engrossers ..	
Cancellation Clerk ..	
VOL.	FOL.

SAVE THESE SPACES FOR DEPARTMENTAL USE.

EXTRA FEES

U.S. 3/24

K 1165--2

SIGNATURE AND SEALS ONLY.

Plan Drawing only to appear in this space

OFFICE USE ONLY

DP 835590

Registered: 20-12-1993

C.A.

Title System: TORENS

Purpose: SUBDIVISION

Ref Map U9137-4/51/4/23/41

Last Plan: DP 825745

PLAN OF SUBDIVISION OF LOT 2
IN DP 825745

Lengths are in metres Reduction Ratio 1:10000

City: LIVEPOOL

Locality: HOLSWORTHY

Parish: HOLSWORTHY

County: CUMBERLAND

This is sheet 1 of my plan in sheets (delete if inapplicable)

1. DAVID CRAIG RADFORD

or AUSLIG SYDNEY

A surveyor registered under the Surveyors Act, 1992, as amended, hereby certifies that the survey represented in this plan is accurate and the bearings and distances are in accordance with the Survey Regulation 1992 and any amended requirements of the Survey Regulation 1992.

18TH AUGUST 1992

Signature of Surveyor: David Craig Radford

Surveyor's registration number: 33030 DP 825745

Plans used in preparation of survey/compilation

DP 802712

DP 817613

DP 825745

PLAN FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

PURSUANT TO SEC 88 OF THE CONVEYANCING ACT 1919 AS AMENDED IT IS INTENDED TO CREATE:

EASEMENT TO DRAIN SEWAGE

EASEMENT TO DRAIN SEWAGE

EASEMENT TO DRAIN SEWAGE

EASEMENT TO DRAIN SEWAGE

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Locality: HOLSWORTHY

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DP 817613

DP 825745

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PURSUANT TO SEC 88 OF THE CONVEYANCING ACT 1919 AS AMENDED IT IS INTENDED TO CREATE:

EASEMENT TO DRAIN SEWAGE

EASEMENT TO DRAIN SEWAGE

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EASEMENT TO DRAIN SEWAGE

EASEMENT TO DRAIN SEWAGE

**INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE
CREATED PURSUANT TO SECTION 88B, CONVEYANCING ACT, 1919**

Lengths are in metres

(Sheet 1 of 1 sheet)

PART 1

Plan **DP 835590**

Plan of Subdivision of Lot 2 DP
825745

Full name and address of
proprietor of the land:

The Commonwealth of Australia
4- ASST. GOVT. SOLICITORS
133 CASTLEREAGH ST.
SYDNEY NSW. 2000.
TO DRAIN

1. Identification of easement referred
to in abovementioned plan

Easement for Sewage Purposes 5.0
Wide ^



Schedule of Lots affected

Lot Burdened

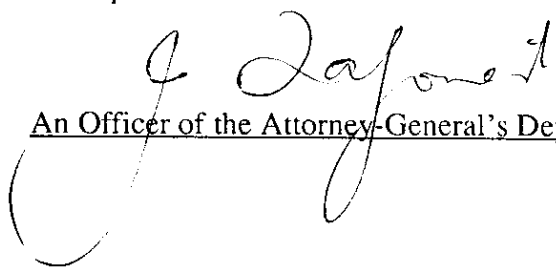
Lot Benefitted

Lot 2000

Lot 2001

SIGNED for and on behalf of THE COMMONWEALTH)
OF AUSTRALIA by a person holding, occupying or)
or performing the duties of the office Principal Legal)
Officer (Position No. *7495*), New South Wales,)
in the presence of:-)




An Officer of the Attorney-General's Department



SIGNATURES AND SEALS ONLY.

SIGNED FOR AND ON BEHALF OF
THE GOVERNMENT OF AUSTRALIA
BY SOUTH AUSTRALIA
DIRECTOR PLANNING SERVICES

DEPARTMENT OF DEFENCE IN THE
PRESENCE OF:

WITNESSES:

NAME OF WITNESSES:

ALAN GETH CLARK
DIRECTOR PROPERTY DISPOSAL
THE FISCAL

Crown Lands Office Approval
Land Officer:
Authorised Officer:
Paper No.:
Field Book:
Date:

Subdivision Certificate

I hereby certify that the provisions of s 109A of the
Environmental Planning and Assessment Act 1979 have been
satisfied in relation to:
• the proposed subdivision, or transfer of land out of the
• the subdivision is for those purposes in accordance with
s 23H of the Conveyancing Act 1919.

Signature:
Authorised Person/ General Manager/ Accredited Officer
Date of endorsement:
Accreditation No.:
Subdivision Certificate No.:
File No.:

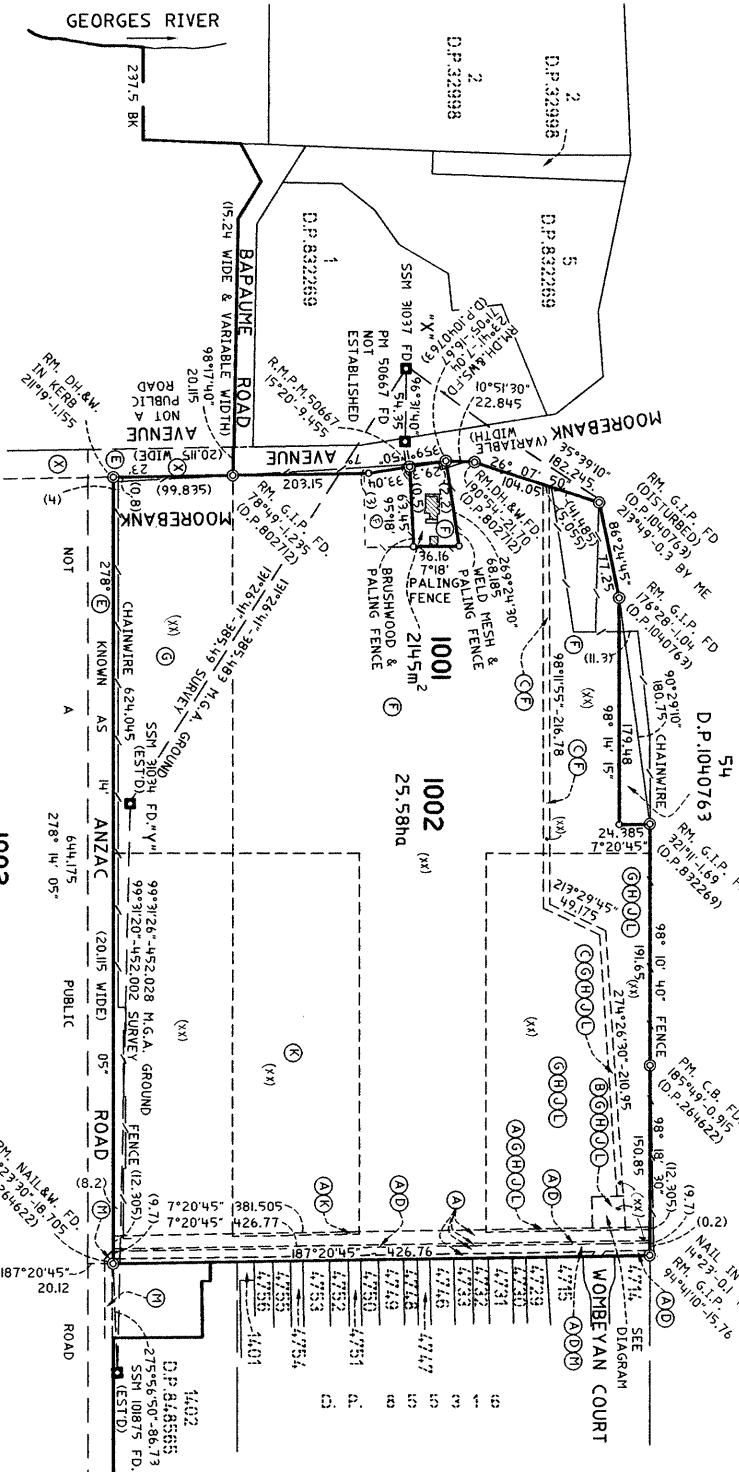
Note:
When the plan is to be lodged electronically in the Land and
Property Information, it should include a signature in an
electronic or digital format approved by the Registrar General.

Surveyor's Reference: 201327

M5 SOUTH WESTERN MOTORWAY

DIAGRAM
SCALE 1:1500

M5 SOUTH WESTERN MOTORWAY



SEE SHEET 2

368.5 ha
(BY DEDUCTION)

1003

MARK	EASTING	NORTHING	ZONE	CLASS	ORDER
PM 3037	308 150.734	6 242 363.441	56	LC	L3
SSM 3034	308 439.705	6 242 108.278	56	B	U
SSM 10875	308 885.526	6 242 073.482	56	U	U

ADOPTED FROM LAND & PROPERTY INFORMATION (S.C.I.N.S.) AT 10/12/2002
COMBINED SCALE FACTOR ADOPTED: 1.000052

DP1050177E

Registered: 19/3/2003

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: U9137-4, 5, 14 & 141

Last Plan: D.P. 832269 & D.P. 1048263

PLAN OF SUBDIVISION OF LOT 3 IN
D.P. 832269 & LOT 2 IN D.P. 1048263

Lengths are in metres. Reduction Ratio 1:3000

LGA: LIVERPOOL

Locality: MOOREBANK

Parish: HOLSWORTHY

County: CUMBERLAND

This is sheet 1 of my plan in 2 sheets.

SURVEYORS (PRACTICE) REGULATION 2001
I, GORD SURVEYS PTY LTD, being the
surveyor, do hereby certify that the
survey was conducted in accordance with the
Surveyors (Practice) Regulation 2001 and that
the survey is a true and correct survey of the
land shown on the plan and that the plan is a
true and correct plan of the land shown on the
plan.

Plans used in preparation of survey/compilation:
D.P. 32998, D.P. 264622, D.P. 832269
D.P. 848565, D.P. 855316, D.P. 1040763,
D.P. 1048263, D.P. 802212, D.P. 1033479

PANEL FOR USE ONLY for statements of intention to
dedicate public roads, to create public reserves, drainage
reserves, easements, restrictions on the use of land or
positive covenants.
PURSUANT TO SECTION 88B OF THE
CONVEYANCING ACT 1996, IT IS
INTENDED TO CREATE:
1. EASEMENT FOR SERVICES 22 WIDE
2. EASEMENT FOR SEWER PUMP STATION
25 WIDE AND VARIABLE
3. EASEMENT FOR SEWERAGE PURPOSES
5 WIDE
4. EASEMENT FOR UNDERGROUND CABLES
& OVERHEAD POWER LINES 9.7 WIDE
5. EASEMENT FOR ACCESS 20.15 WIDE

**INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED
OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND INTENDED TO BE
CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919**

(Sheet 1 of 7 sheets)

Lengths are in metres

of Easements over Lots 1002 and 1003 in Deposited Plan No

DP1050177

**Full name and address of Proprietor
of land:**

The Commonwealth of Australia
("Grantor")

PART 1 (Creation)

Number of item shown in the intention panel on the plan	Identity of easement, profit à pendre, restriction or positive covenant to be created and referred to in the plan.	Burdened lot(s) or parcel(s):	Benefited lot(s), road(s), bodies or Prescribed Authorities:
1	Easement for services 22 wide	Lot 1002 DP	Lot 100 DP 1049500 Lots 1001 & 1003 DP Lots 1 4-2 DP 1048263 Commonwealth of Australia
2	Easement for sewer pump station 25 wide and variable	Lot 1002 DP	Lot 100 DP 1049500 Lots 1001 & 1003 DP Lots 1 4-2 DP 1048263 Commonwealth of Australia
3	Easement for sewerage purposes 5 wide	Lot 1002 DP	Lot 100 DP 1049500 Lot 1001 DP
4	Easement for underground cables and overhead power lines 9.7 wide	Lot 1002 DP	Integral Energy Australia
5	Easement for Access 20.115 wide	Lot 1003 DP	Lot 1002 DP



**INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED
OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND INTENDED TO BE
CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919**

(Sheet 2 of 7 sheets)

DP1050177

Lengths are in metres

Plan: of Easements over Lots 1002 and 1003 in Deposited Plan No

PART 2 (TERMS)

1 Terms of easement for services numbered 1 in the plan

1.1 The body having the benefit of this easement may (in common with others having the same rights):

- (a) Provide services supplied by that body through each lot burdened, but only within the site of this easement; and
- (b) Do anything reasonably necessary for that purpose, including:
 - entering the lot burdened; and
 - taking anything on to the lot burdened; and
 - carrying out work such as constructing, placing, repairing or maintaining pipes, poles, wires, cables, conduits, structures and equipment.

1.2 In exercising those powers, the body having the benefit of this easement must:

- (a) ensure all work is done properly; and
- (b) cause as little damage as is practicable to the owner and any occupier of the lot burdened; and
- (c) cause as little damage as is practicable to the lot burdened and any improvement on it; and
- (d) restore the lot burdened as nearly as is practicable to its former condition; and
- (e) make good any collateral damage.

1.3 For the purposes of this easement, services includes supply of water, gas, electricity, telephone and television and discharge of sewage, sullage and other fluid wastes.

1.4 The Owner of the lot burdened covenants with the body benefited that the Owner:

- (a) will not erect or permit to be erected any structure on or under the easement site; and

**INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED
OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND INTENDED TO BE
CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919**

(Sheet 3 of 7 sheets)

Lengths are in metres

- Plan: of Easements over Lots 1002 and 1003 in Deposited Plan No
- (b) will not alter the surface level of the easement site or carry out any form of construction affecting its surface, undersurface or subsoil; and
 - (c) will not do or permit anything to be done or fail to do anything whereby access to the easement site by the body benefited is restricted,
- without the written permission of the body benefited and in accordance with such conditions as the body benefited may reasonably impose.

2 Terms of Easement for Sewer Pump Station numbered 2 in the plan

2.1 Full and free right for the Owner of the Lot Benefited (in common with others having the same right) for the purposes of a Sewer Pump Station to have in respect of that part of the Easement site such access, sewer pump station, underground pipes, lines or lines of cables and pipes and such other works as are necessary for such purposes **TOGETHER WITH** the right for the Owner of the Lot Benefited at all times and from time to time to construct, lay down, use and maintain a sewer pump station, together with the rights set out hereinafter, in, under, on, across, over and through the Easement site for the purpose of the construction, laying down, use and maintenance of such sewer pump station and for any purpose incidental to those purposes and the Owner of the Lot Benefited shall have full and free right at all times and from time to time:

- (a) to enter, go, return, pass, repass and remain with or without tools, implements, machinery, animals or vehicles;
- (b) to dig, break up, open the soil and restore the surface;
- (c) to lay down, use, erect and maintain underground power lines, cables and drainage or sewerage pipes together with any necessary ancillary equipment and structures;
- (d) to use, erect and maintain power lines, support structures, conduits and such other works as may be necessary;
- (e) to deposit and remove sand, clay, stone, earth, gravel, timber, wood and other materials and things;
- (f) to erect sheds, security fencing, security access structures and other structures;
- (g) to demolish, destroy and remove any plant, machinery, equipment, goods, sheds and structures;

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INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919

(Sheet 4 of 7 sheets)

Lengths are in metres

- Plan:
- (h) of Easements over Lots 1002 and 1003 in Deposited Plan No to inspect, alter, adjust, renew, re-construct, replace, repair, cleanse, maintain and change the size of any pipe, pole, support structure, power line, pipe or cable or any other item of ancillary equipment;
 - (i) to remove any pipe or poles, support structure, power line, light, pipe or cable or any other item of ancillary equipment;
 - (j) to have the right of support on the said land for any sewer pump station, support structure, fencing, pipe or line of pipes, pole or line of poles, lights or cables and ancillary equipment and the right to use the lights without any obstruction caused by grass, shrubs, trees, or other vegetation or structures;
 - (k) to do all things necessary or convenient to be done in connection with or incidental to the exercise of the previously referred to rights.

2.2 In exercising its rights under this easement the Owner of the Lot Benefited will take reasonable precautions to minimise disturbance to the surface of the Lot burdened and will restore that surface as nearly as practicable to its original condition.

2.3 **Owner of the Lot Benefited** means the owners of the Lots ^{25 832269} ~~100~~ DP ~~1049508~~, Lots 1001 and 1003 DP [] and Lots 1 & 2 DP 1048263 and the Commonwealth of Australia (and their successors) and their employees, agents, contractors and persons authorised by them. 

Owner means the registered proprietor from time to time of the lot burdened (including those claiming under or through the registered proprietor).

Sewer pump station means a sewer pump station with pumps, conduits, ducts and ancillary sewerage equipment.

Erect includes construct, repair, replace, maintain, modify, use and remove.

Easement site means that part of the lot burdened subject to the easement.

The terms implied by section 88A(2A) and Schedule 4A Part 8 of the Conveyancing Act are excluded.

3 Terms of Easement for sewerage numbered 3 in the plan:

- 3.1 Full and free right and licence for the Owner of the Lot Benefited to erect sewerage equipment on the surface and undersurface of the lot burdened for the purpose of draining sewerage, sullage and other fluid wastes and incidental purposes, together with the following rights:

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**INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED
OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND INTENDED TO BE
CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919**

(Sheet 5 of 7 sheets)

Lengths are in metres

- Plan: of Easements over Lots 1002 and 1003 in Deposited Plan No
- (a) to enter pass and repass on the lot burdened (with or without vehicles) at all reasonable times (and at any time in the event of an emergency) and to remain there for any reasonable time with or without workmen, materials or machinery; and
 - (b) to cut, trim, remove and lop trees, branches, roots, foliage and other vegetation on the lot burdened which encroach on or may interfere with or prevent reasonable access to the Easement site or the sewerage equipment; and
 - (c) to remove any encroachments from the Easement site; and
 - (d) to excavate the Easement site for the purposes of this easement.
- 3.2 In exercising its rights under this easement the Owner of the Lot Benefited will take reasonable precautions to minimise disturbance to the surface of the lot burdened and will restore that surface as nearly as practicable to its original condition.
- 3.3 The Owner of the lot burdened covenants with the Owner of the Lot Benefited that the Owner:
- (a) will not erect or permit to be erected any structure on or under the Easement site; and
 - (b) will not alter the surface level of the easement site or carry out any form of construction affecting its surface, undersurface or subsoil; and
 - (c) will not do or permit anything to be done or fail to do anything whereby access to the Easement site by the Owner of the Lot Benefited is restricted,

without the written permission of the Owner of the Lot Benefited and in accordance with such conditions as the Owner of the Lot Benefited may reasonably impose.

- 3.4 **Owner of the Lot Benefited** means the owners of Lot 100 DP 1049508 and of Lot 1001 DP [] (and their successors) and their employees, agents, contractors and persons authorised by them.

Owner means the registered proprietor from time to time of the lot burdened (including those claiming under or through the registered proprietor).

Erect includes construct, repair, replace, maintain, modify, use and remove.

Easement site means that part of the lot burdened subject to the easement.

**INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED
OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND INTENDED TO BE
CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919**

(Sheet 6 of 7 sheets)

Lengths are in metres

Plan: of Easements over Lots 1002 and 1003 in Deposited Plan No
Sewerage equipment means drainage pipes ducts, cables and ancillary
sewerage equipment.

The terms implied by section 88A(2A) and Schedule 4A Part 8 of the
Conveyancing Act 1919 are excluded.

**4 Terms of Easement for Underground Cables and Overhead
Power Lines numbered 4 in the plan**

- 4.1 Full and free right and licence for the Authority Benefited to erect electricity
equipment on the surface and under the lot burdened for the purpose of
transmission of electricity and incidental purposes together with the following
rights:
- (a) to enter pass and repass on the lot burdened (with or without vehicles)
at all reasonable times (and at any time in the event of an emergency)
and to remain there for any reasonable time with or without workmen
materials or machinery; and
 - (b) to cut, trim, remove and lop trees, branches, roots, foliage and other
vegetation on the lot burdened which encroach on or may interfere with
or prevent reasonable access to the Easement site or the electricity
equipment; and
 - (c) to remove any encroachments from the Easement site; and
 - (d) to excavate the Easement site for the purposes of this easement.
- 4.2 In exercising its rights under this easement the Authority Benefited will take
reasonable precautions to minimise disturbance to the surface of the lot burdened
and will restore that surface as nearly as practicable to its original condition.
- 4.3 The owner of the lot burdened covenants with the Authority Benefited that the
Owner:
- (a) will not erect or permit to be erected any structure on or under the
Easement site; and
 - (b) will not alter the surface level of the Easement site or carry out any form
of construction affecting its surface, undersurface or subsoil; and
 - (c) will not do or permit anything to be done or fail to do anything whereby
access to the Easement site by the Authority Benefited is restricted,

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**INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED
OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND INTENDED TO BE
CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919**

(Sheet 7 of 7 sheets)

Lengths are in metres

Plan: of Easements over Lots 1002 and 1003 in Deposited Plan No
without the written permission of the Authority Benefited and in accordance with
such conditions as the Authority Benefited may reasonably impose.

4.4 **Authority Benefited** means Integral Energy Australia (and its successors) and its
employees, agents, contractors and persons authorised by it.

Owner means the registered proprietor from time to time of the lot burdened
(including those claiming under or through the registered proprietor).

Electricity equipment means electricity transmission poles, towers, wires,
cables, underground electricity cables, ducts and ancillary electrical equipment.

Erect includes construct, repair, replace, maintain, modify, use and remove.

Easement site means that part of the lot burdened subject to the easement.

The terms implied by section 88A(2A) and Schedule 4A Part 8 of the
Conveyancing Act are excluded.

SIGNED, SEALED AND DELIVERED

for and on behalf of the
COMMONWEALTH OF AUSTRALIA
by a delegate of the Minister for
Defence:

.....

Signature of witness

.....
ELIZABETH CLARK

Name of witness (block letters)

.....
BRINDABELLA PARK CANBERRA

Address of witness

.....
PUBLIC SERVANT

Occupation of witness

.....

Signature of authorised person

.....
JOHN FLETCHER

Office held

.....
DIRECTOR PROPERTY SERVICES

Name of authorised person
(BLOCK LETTERS)

REGISTERED



19.3.2003

Schedule 2 Easements

1. Form of easement contemplated under clause 7.2;
2. MIPT Land Easement; and
3. SME Land Easement.

(Sheet 1 of 24)

**Full name and address of proprietors
of the land:**

PART 1 - CREATION

Number of item shown in the intention panel on the plan	Identity of easement, profit à prendre, restriction or positive covenant to be created and referred to in the plan	Burdened lot(s) or parcel(s):	Benefited lot(s), road(s), bodies or Prescribed Authorities:
1	Easement for services		
2	Easement for support and shelter		
3	Easement for drainage of road stormwater variable width		
4	Easement for access for service & maintenance purposes		
5	Easement for future services		
6	Easement for stormwater retention tank		
7	Easement for light and air		
8	Easement for support of public road formation		
9	Easement for gas supply over existing line of pipes (approximate position)		
10	Easement for overhanging awning		
11	Easement for access and construction		
12	Right of footway		
13	Easement for service vehicles		
14	Easement for access to sewage pump pits		
15	Easement for irrigation tank		

Council Authorised Person

Number of item shown in the intention panel on the plan	Identity of easement, profit à prendre, restriction or positive covenant to be created and referred to in the plan	Burdened lot(s) or parcel(s):	Benefited lot(s), road(s), bodies or Prescribed Authorities:
16	Easement for visitor parking		

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Proforma Easement Instrument – Moorebank -
13230708_3

(Sheet 3 of 24)

Subdivision of []
Covered by Subdivision Certificate No. []
Dated:

PART 2 - TERMS

1.1 Definitions

Act means the *Conveyancing Act 1919* (NSW).

Authorised User means every person authorised by the Grantee for the purposes of an easement, positive covenant and restriction on use created by this instrument. Subject to the terms of an easement, positive covenant and restriction on use, an Authorised User includes, without limitation:

- (a) the Management Committee; and
- (b) the tenants, lessees, sub-lessees, employees, agents, contractors, licensees and invitees of the Grantee.

Council means the Liverpool City Council and its successors.

Development means the precinct known as "Moorebank Intermodal".

Easement Site means in relation to an easement, positive covenant and restriction on use in this instrument:

- (a) the site of an easement, positive covenant and restriction on use identified on the Plan; and
- (b) all items within the site of the easement identified on the Plan which are the subject of the easement, positive covenant or restriction on use.

Government Agency means any government or governmental, semi or local government, statutory, public or other authority having jurisdiction over any lot in the Plan from time to time.

Grantee means:

- (a) the freehold owner from time to time of the Lot Benefited;
- (b) the Owner from time to time of a Lot Benefited; and
- (c) an authority benefited.

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Plan: Subdivision of []
Covered by Subdivision Certificate No. []
Dated:

Grantor means the Owner of a Lot Burdened.

Lease means registered lease [*insert number*] between the Commonwealth of Australia as landlord and Moorebank Intermodal Development Investment Nominees Pty Limited ACN [*insert*] as tenant dated [*insert*] and registered on the folio of the Lot Burdened.

Long Term Lease means a lease for a term of greater than 50 years when it was granted and if there is more than one lease (for a term of greater than 50 years), means a lease or sub lease which is the latest in a chain of lease grants.

Lot Benefited means a lot benefited by an easement, positive covenant or restriction on use in this instrument.

Lot Burdened means a lot burdened by an easement, positive covenant or restriction in this instrument.

Management Committee means any management committee constituted under the Precinct Management Agreement.

Owner means:

- (a) if a Long Term Lease has been granted in respect of the lot, the holder from time to time of that Long Term Lease for the duration of the term of that Long Term Lease; or
- (b) if a Long Term Lease has not been granted in respect of the lot, the owner from time to time of the freehold of the lot.

Plan means the plan of subdivision to which this instrument relates.

Precinct Management Agreement means a precinct management agreement which regulates the operation and maintenance of the Development and which applies to any and all of the lots in the Plan (or any lots created upon further subdivision of a lot in the Plan) from time to time.

Public Road has the meaning given to that term in the *Roads Act 1993 (NSW)*.

Services means:

- (a) the supply of water, gas, recycled water, electricity or artificially heated or cooled air; and
- (b) fire safety or control services;
- (c) the provision of sewerage and drainage; and
- (d) telephone, radio, television or other transmission means; and
- (e) electricity;
- (f) oil;
- (g) garbage;

Council Authorised Person

Plan: Subdivision of []
Covered by Subdivision Certificate No. []
Dated:

- (h) signals or data transmission;
- (i) security systems; and
- (j) mechanical ventilation; and
- (k) any other facility, supply or transmission.

1.2 References to certain terms

Unless a contrary intention appears, a reference in this instrument to:

- (a) **(reference to anything)** a reference to anything is a reference to the whole or each part of it; and
- (b) **(references to statute)** a law, ordinance or code includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of them; and
- (c) **(singular includes plural)** the singular includes the plural and vice versa; and
- (d) **(meaning not limited)** the words "include", "including", "for example" or "such as" are not used as, nor are they to be interpreted as, words of limitation and, when introducing an example, do not limit the meaning of the words to which the example relates to that example or examples of a similar kind.

1.3 Headings

Headings do not affect the interpretation of this instrument.

1.4 Positive covenants and maintenance requirements

A requirement in an easement, positive covenant or restriction on use in this instrument which requires a Grantee or Grantor to maintain or repair an Easement Site or a Lot Burdened or any thing in an Easement Site or Lot Burdened is a positive covenant according to section 88BA of the Act.

2 Interpretation

2.1 Application of this clause

This clause applies to each easement, positive covenant and restriction on use in this instrument, except where the contrary intention is expressed.

2.2 Covenants and agreements

The easements, positive covenants and restrictions on use, including in this clause and clauses 3 ("Complying with this instrument and the Precinct Management Agreement") and 4 ("Effect of the Precinct Management Agreement"), in each of the easements, positive covenants and restrictions on use in this instrument are covenants and agreements between:

Council Authorised Person

Plan: Subdivision of []
Covered by Subdivision Certificate No. []
Dated:

- (a) each Grantee for itself, its successors and every person who is entitled to an estate or interest in possession of the Lot Benefited or any part of it with which the right is capable of enjoyment; and
- (b) each Grantor for itself, its successors and every person who is entitled to an estate or interest in possession of the Lot Burdened or any part of it with which the right is capable of enjoyment,

to the intent that the benefit and burden of those covenants and agreements are annexed to and pass with the benefits and burdens of the easements, positive covenants and restrictions on use.

2.3 Release

The Grantee and its Authorised Users enter upon the Lot Burdened at their own risk and the Grantee hereby releases the Grantor and the freehold owner of the Lot Burdened from all damage, expense, loss, claims or liability of any nature that may arise in respect of any accident or damage to property or death or injury to any person entering upon the Lot Burdened under the terms of this instrument, subject to the following provisions:

- (a) in the case of the Grantee's and its Authorised Users' releases of the Grantor which is not the freehold owner of the Lot Burdened, the Grantee and its Authorised Users do not release the Grantor to the extent that the damage, expense, loss, claim or liability is caused or contributed to by the act, negligence or omission of the Grantor; and
- (b) in the case of the Grantee's and its Authorised Users' releases of the freehold owner of the Lot Burdened, the Grantee and its Authorised Users do not release the freehold owner of the Lot Burdened to the extent that the damage, expense, loss, claim or liability is caused or contributed to by the act, negligence or omission of the freehold owner of the Lot Burdened.

2.4 Indemnity

- (a) The Grantee (other than the freehold owner of the Lot Benefited) indemnifies and agrees to keep indemnified the Grantor and the freehold owner of the Lot Burdened against all damage, expense, loss, claims or liability of any nature suffered or incurred by the Grantor or the freehold owner of the Lot Burdened arising from or in consequence of the exercise of rights under an easement, positive covenant or restriction on use in this instrument by the Grantee and any of its Authorised Users including but not limited to:
 - (i) damage to the Lot Burdened, except fair wear and tear; and
 - (ii) damage to any property of the Grantor, the freehold owner of the Lot Burdened or any other person; and
 - (iii) injury to any person on or near the Lot Burdened,subject to clause 2.4(b) and clause 2.4(c), as applicable.
- (b) In the case of a Grantee's indemnity in favour of a Grantor other than the freehold owner of the Lot Burdened, the Grantee's indemnity will be reduced proportionately to

Council Authorised Person

Plan: Subdivision of []
Covered by Subdivision Certificate No. []
Dated:

the extent that the damage, expense, loss, claim or liability is caused or contributed to the act, omission or negligence of the Grantor.

- (c) In the case of a Grantee's indemnity in favour of the freehold owner of the Lot Burdened, the Grantee's indemnity will be reduced proportionately to the extent that the damage, expense, loss, claim or liability is caused or contributed to by the act, omission or negligence of the freehold owner of the Lot Burdened.

2.5 Notice to owner

If a notice to the Grantor is required to be given under this instrument, that notice must also be given to the occupier of the Lot Burdened. Notice required in the case of an emergency may be given verbally.

3 Complying with this instrument and the Precinct Management Agreement

3.1 Obligations of Grantees and Grantors

Each Grantee and Grantor must, as appropriate, comply with the terms of the easements, positive covenants and restrictions on use in this instrument and the Precinct Management Agreement.

3.2 Obligations for Authorised Users

For each easement, positive covenant and restriction on use in this instrument, each Grantee must use reasonable endeavours to ensure that its Authorised Users comply with the terms of the instrument when they exercise their rights or comply with their obligations under the instrument.

3.3 Complying with the Precinct Management Agreement

For each easement, positive covenant and restriction on use in this instrument, the Grantee who is required to comply with the Precinct Management Agreement must:

- (a) comply with the Precinct Management Agreement; and
- (b) use reasonable endeavours to ensure that its Authorised Users comply with the Precinct Management Agreement which applies to the Lot Burdened.

4 Effect of the Precinct Management Agreement

4.1 Application of this clause

This clause applies to each easement, positive covenant and restriction on use in this instrument.

Council Authorised Person

4.2 Requirements about making rules

4.3 Complying with obligations

5 Terms of Easement for services numbered 1 in the Plan

5.1 Grant

- (a) use the Easement Site, to provide Services to or from each Lot Benefited, and
- (b) do anything reasonably necessary for that purpose, including:
 - (i) entering the Lot Burdened, and
 - (ii) taking anything on to the Lot Burdened, and
 - (iii) carrying out work, such as constructing, placing, repairing or maintaining pipes, poles, wires, cables, conduits, structures and equipment.

5.2 General requirements when exercising rights

- (a) ensure all work is done properly; and
- (b) cause as little inconvenience as is practicable to the owner and any occupier of the Lot Burdened; and
- (c) cause as little damage as practicable to the Lot Burdened and make good and repair any damage to the reasonable satisfaction of the Grantor; and
- (d) restore the lot burdened as nearly as is practicable to its former condition; and
- (e) make good any collateral damage.

Council Authorised Person

Plan: Subdivision of []
Covered by Subdivision Certificate No. []
Dated:

5.3 Making rules

Subject to clause 4.2 ("Requirements about making rules"), the Grantor may make reasonable rules about the use of the Lot Burdened by the Grantee and its Authorised Users under this easement.

5.4 Additional requirements when exercising rights

When exercising its rights or complying with obligations under this easement, the Grantee and its Authorised Users must:

- (a) ensure that any person carrying out works on Services on their behalf is qualified or licensed (if a licence is required at law) to do those works;
- (b) ensure that all work is:
 - (i) done properly and in accordance with requirements of Government Agencies (if applicable); and
 - (ii) completed as quickly as practicable;
- (c) repair damage which they cause to a Service owned by the Grantor located in the Lot Burdened;
- (d) restore the Lot Burdened as nearly as practicable to its former condition;
- (e) make good any collateral damage;
- (f) comply with any rules made by the Grantor in accordance with clause 5.3 ("Making Rules") and any relevant requirements under the Precinct Management Agreement; and
- (g) not interfere with the structural integrity of the building or any infrastructure located on the Lot Burdened without the prior written consent of the Grantor, which consent must not be unreasonably withheld.

5.5 Maintaining Services

Subject to any contrary requirements under a Precinct Management Agreement, the Grantee must maintain its own Services.

5.6 Additional Obligations

The Grantee:

- (a) acknowledges that some of the Services under this easement are being used in common with the Grantor and its authorised users; and
- (b) must not interfere with any of the Services for the Lot Burdened located within the Easement Site from time to time.

Council Authorised Person

Plan: Subdivision of []
Covered by Subdivision Certificate No. []
Dated:

- (a) with vehicles;
- (b) on foot; and
- (c) with or without materials, tools and equipment;

for the purpose of accessing the Lot Benefited and the sites of those easements which benefit the Lot Benefited.

8.2 Making Rules

Subject to clause 4.2 ("Requirements about making rules"), the Grantor may make reasonable rules about the use of the Easement Site by the Grantee and its Authorised Users, including the hours between which the access is permitted.

9 Terms of Easement for future services numbered 5 in the Plan

9.1 Grant

The Grantee and its Authorised Users may:

- (a) use the Lot Burdened, but only within the Easement Site and in a manner that does not detrimentally interfere with use of the Lot Burdened, to install and provide Services to or from the Lot Benefited with the prior written consent of the Grantor, which consent must not be unreasonably withheld or delayed; and
- (b) do anything reasonably necessary for the purposes of this easement, including:
 - (i) entering the Lot Burdened;
 - (ii) taking anything on to the Lot Burdened; and
 - (iii) carrying out work, such as constructing, placing, installing, repairing, using, operating, maintaining, examining, re-laying, altering, renewing, cleaning, replacing, enhancing, adding to or removing pipes, poles, wires, cables, ducts, conduits, structures and equipment.

9.2 Requirements before exercising rights

Before exercising any rights under this easement, the Grantee and its Authorised Users must:

- (a) except in an emergency, give the Grantor not less than 48 hours' notice of its intention to enter the Lot Burdened. In an emergency, a Grantee or Authorised User must give the Grantor notice of access to the Lot Burdened as soon as practicable;
- (b) if required by the Grantor, when exercising rights under this easement be accompanied by, and comply with the reasonable directions of the Grantor's nominee;
- (c) except where prior arrangements have been made with the Grantor or in an emergency, not disrupt any of the Services to the Lot Burdened; and

Council Authorised Person

(d) not carry out any works to the structure of the buildings and infrastructure located on the Lot Burdened unless:

- (i) the Grantor gives its approval to the works proposed to be carried out (which approval must not be unreasonably withheld or delayed);
- (ii) the Grantee, at its own cost, consults with a structural engineer or services engineer (as applicable) nominated by the Grantor; and
- (iii) the Grantee ensures that the recommendations of the structural engineer or services engineer (as applicable) are carried out.

- (a) ensure that any person carrying out works on Services or the Easement Site on their behalf is qualified or licensed (if a licence is required at law) to do those works;
- (b) ensure that all work is done properly and in accordance with the requirements of any Government Agency (if relevant);
- (c) cause as little inconvenience as practicable to the Grantor and any occupiers of the Lot Burdened;
- (d) cause as little damage as practicable to the Lot Burdened and any personal property or improvements on the Lot Burdened;
- (e) if any damage is caused:
 - (i) promptly make good and repair such damage to the reasonable satisfaction of the Grantor; and
 - (ii) (if relevant) restore the Lot Burdened as nearly as is practicable to its former condition (including, if relevant and without limitation, by restoring any excavated surface as nearly as possible to its original state and making good any collateral damage); and
- (f) not interfere with the structural integrity of the building or any infrastructure located on the Lot Burdened without the prior written consent of the Grantor, which consent must not be unreasonably withheld or delayed.

The Grantee must maintain its own Services.

The Grantee acknowledges that this easement may be used in common with the Grantor.

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10 Terms of easement for stormwater retention tank numbered 6 in the Plan

10.1 Grant

The Grantee and its Authorised Users may:

- (a) use the stormwater retention tank (including pipes, pumps, structures and equipment) within the Easement Site in which stormwater will be collected and distributed; and
- (b) do anything reasonably necessary for the purposes of this easement, including:
 - (i) entering the Lot Burdened;
 - (ii) taking anything on to the Lot Burdened; and
 - (iii) carrying out work, such as constructing, placing, installing, repairing, using, operating, maintaining, examining, re-laying, altering, renewing, cleaning, replacing, enhancing, adding to or removing pipes, pumps, structures and equipment.

10.2 Requirements before exercising rights

Before exercising any rights under this easement, the Grantee and its Authorised Users must:

- (a) except in an emergency, give the Grantor not less than 48 hours' notice of its intention to enter the Lot Burdened. In an emergency, a Grantee or Authorised User must give the Grantor notice of access to the Lot Burdened as soon as practicable; and
- (b) except where prior arrangements have been made with the Grantor or in an emergency, not disrupt any Service to the Lot Burdened.

10.3 Requirements when exercising rights

When exercising rights under this easement, the Grantee and its Authorised Users must:

- (a) ensure that any person carrying out works on the stormwater retention tank or the Easement Site on their behalf is qualified or licensed (if a licence is required at law) to do those works;
- (b) ensure that all work is done properly and in accordance with the requirements of any Government Agency (if relevant);
- (c) cause as little inconvenience as practicable to the Grantor and any occupiers of the Lot Burdened;
- (d) cause as little damage as practicable to the Lot Burdened and any personal property or improvements on the Lot Burdened;
- (e) if any damage is caused:

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- (i) promptly make good and repair such damage to the reasonable satisfaction of the Grantor; and
- (ii) (if relevant) restore the Lot Burdened as nearly as is practicable to its former condition (including, if relevant and without limitation, by restoring any excavated surface as nearly as possible to its original state and making good any collateral damage); and
- (f) not interfere with the structural integrity of the building or any infrastructure located on the Lot Burdened without the prior written consent of the Grantor, which consent must not be unreasonably withheld or delayed.

11 Terms of Easement for light and air numbered 7 in the Plan

11.1 Grant of easement

The owner of the freehold of the Lot Burdened grants the Grantee and its Authorised Users the right to the uninterrupted:

- (a) transmission and enjoyment of light over and across the Easement Site; and
- (b) intake and emission of light and air through the Easement Site.

12 Terms of Easement for support of public road formation numbered 8 in the Plan

12.1 Grant of easement

The owner of the freehold of the Lot Burdened grants the [Council] an easement for subjacent and lateral support in any direction for those parts of the public road formation situated above the vehicle tunnels and secant wall structures located below [] and any structures erected on the Lot Burdened as are capable of affording or reasonably intended to provide that support.

12.2 Requirements when exercising rights

The [Council] and its Authorised Users may enter and remain on the Lot Burdened for the purposes of inspecting, constructing, repairing, maintaining or renewing any support to the public road formation located on the Lot Burdened subject to the following conditions:

- (a) the [Council] and its Authorised Users must take all reasonable steps to minimise disturbance or damage to the Grantor, the Lot Burdened and the [occupiers] and contents of the Lot Burdened; and
- (b) except in an emergency, the [Council] and its Authorised Users must give reasonable notice to the Grantor of its intention to enter the Lot Burdened.

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12.3 Releasing or modifying this restriction

The [Council] is the authority empowered to release, vary or modify this easement.

13 Terms of easement for gas supply over existing line of pipes (approximate position) numbered 9 in the Plan

13.1 Grant of easement

Subject to the conditions in this easement, the owner of the freehold of the Lot Burdened grants the Grantee and its Authorised Users the right to:

- (a) at all times, install, use, maintain, repair and replace pipes for gas supply in any quantities across and through the Lot Burdened;
- (b) use, for the purpose of this easement, any line of pipes already laid within the Lot Burdened for the purpose of the supply of gas or any pipes in replacement or in substitution for them;
- (c) use tools, implements and machinery, necessary for the purpose and enter the Lot Burdened and remain there for any reasonable time for the purpose of laying, inspecting, cleaning, repairing, maintaining or renewing the pipes (or part of them); and
- (d) for the purpose of this easement open the soil of the Lot Burdened to the extent necessary to exercise its rights and comply with its obligations under this easement.

13.2 Requirements when exercising rights

When exercising rights under this easement, the Grantee and its Authorised Users must:

- (a) cause as little inconvenience as practicable to the Grantor and any occupiers of the Lot Burdened; and
- (b) cause as little damage as practicable to the Lot Burdened and any personal property or improvements on the Lot Burdened.

14 Terms of easement for overhanging awning numbered 10 in the Plan

14.1 Grant of easement

Subject to the conditions in this easement, the owner of the freehold of the Lot Burdened grants the Grantee and its Authorised Users the right to:

- (a) construct, maintain and enjoy the awning, supporting structures, facade, lights, services, security cameras and other improvements situated on or over the Lot Burdened, having their footings or partial supports on or which are attached to the Lot Benefited:

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- (b) enter onto the Lot Burdened and also to remain there for the reasonable time necessary (with tools, plant, equipment, machinery, vehicles, scaffolding or other materials) for the purposes of installing, inspecting, cleaning, repairing, maintaining, augmenting, renewing, replacing or removing and making good that part of the awning which is located on, supported by or overhangs or encroaches the Lot Burdened.

Before exercising any rights under this easement, the Grantee and its Authorized Users must give reasonable notice to the Grantor of its intention to do so except in an emergency. In an emergency, the Grantee or its Authorized Users must give the Grantor notice of access to the Lot Burdened as soon as practicable.

When exercising rights under this easement, the Grantee and its Authorized Users must:

- (a) ensure the awning is maintained to a high standard of repair and is at all times safe and clean;
- (b) ensure that all work is:
 - (i) done properly and in accordance with the requirements of any Government Agency (if relevant); and
 - (ii) completed as quickly as practicable;
- (c) cause as little inconvenience as practicable to the Grantor and any occupiers of the Lot Burdened;
- (d) cause as little damage as practicable to the Lot Burdened and any personal property or improvements on the Lot Burdened; and
- (e) if any damage is caused:
 - (i) promptly make good and repair such damage to the reasonable satisfaction of the Grantor; and
 - (ii) (if relevant) restore the Lot Burdened as nearly as is practicable to its former condition (including, if relevant and without limitation, by restoring any excavated surface as nearly as possible to its original state and making good any collateral damage).

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15 Terms of Easement for access and construction numbered 11 in the Plan

15.1 Grant of easement

The owner of the freehold of the Lot Burdened grants the Grantee and its Authorised Users the right to:

- (a) enter the Lot Burdened;
- (b) oversail the Lot Burdened with cranes and other construction equipment and materials; and
- (c) pass over and remain on the Lot Burdened with vehicles and with or without materials, tools and equipment,

for the period reasonably necessary to enable the Grantee to carry out demolition and construction works in connection with any development or redevelopment of the Lot Benefited.

15.2 Term

The Grantor and the Grantee agree that this easement will expire on the date which is 99 years after the commencement date of the Lease.

15.3 Requirements when exercising rights

When exercising rights under this easement, the Grantee and its Authorised Users must:

- (a) cause as little inconvenience as practicable to the Owner and any occupiers of the Lot Burdened;
- (b) cause as little damage as practicable to the Lot Burdened and any personal property or improvements on the Lot Burdened; and
- (c) if any damage is caused:
 - (i) promptly make good and repair such damage to the reasonable satisfaction of the Grantor; and
 - (ii) (if relevant) restore the Lot Burdened as nearly as is practicable to its former condition (including, if relevant and without limitation, by restoring any excavated surface as nearly as possible to its original state and making good any collateral damage).

15.4 Application of this easement

The easements created or intended to be created by this part shall cease to exist and be removed from the title of the Lot Burdened when that part of the Lot Burdened affected by this easement becomes operational land or is dedicated or transferred to Council as a Public Road.

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16 Terms of Right of footway numbered 12 in the Plan

The owner of the freehold of the Lot Burdened grants the Grantee and its Authorised Users the right to enter, pass and repass to and from the Easement Site:

- When exercising rights under this easement, the Grantee and its Authorised Users must:

- 17 Terms of Easement for service vehicles numbered 13 in the Plan**

The owner of the freehold of the Lot Burdened grants the Grantee and its Authorised Users the right to use the Easement Site:

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17.2 Access to the Easement Site

The Grantee acknowledges and agrees that access to the Easement Site may be regulated by security boom gates or other security devices to regulate the flow of vehicular access into Barangaroo. The Grantor agrees to provide the Grantee and its Authorised Users with access to security boom gates or other security devices as necessary to allow the Grantee (and its Authorised Users) to exercise rights and comply with obligations under this easement.

18 Terms of Easement for access to sewage pump pits numbered 14 in the Plan

18.1 Grant of easement

Subject to the conditions in this easement, the owner of the freehold of the Lot Burdened grants the right to the Grantee and its Authorised Users to enter and remain (for the periods reasonably necessary) on the Lot Burdened in order to operate, inspect, maintain, repair and replace the sewage pump pit located under the Lot Burdened (and accessible only via the Lot Burdened).

18.2 Access to easement site

Except in an emergency, the Grantee or an Authorised User must:

- (a) give the Grantor reasonable notice of their intention to enter the Lot Burdened to exercise their rights and comply with their obligations under this easement; and
- (b) use their reasonable endeavours to ensure that they exercise their rights and comply with their obligations under this easement before 8.00am and after 6.00pm (or during other times agreed by the Grantor).

18.3 Requirements when exercising rights

When exercising rights under this easement, the Grantee and its Authorised Users must:

- (a) cause as little inconvenience as practicable to the Grantor and any occupiers of the Lot Burdened;
- (b) cause as little damage as practicable to the Lot Burdened and any personal property or improvements on the Lot Burdened;
- (c) if any damage is caused:
 - (i) promptly make good and repair such damage to the reasonable satisfaction of the Grantor; and
 - (ii) (if relevant) restore the Lot Burdened as nearly as is practicable to its former condition (including, if relevant and without limitation, by restoring any excavated surface as nearly as possible to its original state and making good any collateral damage); and

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- (d) promptly remove and clean any spillage in the Lot Burdened caused by the Grantee or its Authorised Users exercising their rights or complying with their obligations under this easement.

19 Terms of Easement for irrigation tank numbered 15 in the Plan

19.1 Grant of easement

Subject to the conditions in this easement, the owner of the freehold of the Lot Burdened grants the right to the Grantee and its Authorised Users to:

- (a) drain into and store roof and stormwater run-off in the Irrigation Tank; and
- (b) enter and remain (for the periods reasonably necessary) on the Lot Burdened in order to operate, inspect, clean, maintain, repair, modify and replace the Irrigation Tank.

19.2 Access to easement site

Except in an emergency, the Grantee or an Authorised User must:

- (a) give the Grantor reasonable notice of its intention to enter the Lot Burdened to exercise their rights and comply with their obligations under this easement; and
- (b) use their reasonable endeavours to ensure that they exercise their rights and comply with their obligations under this easement before 8.00am and after 6.00pm (or during other times agreed by the Grantor).

19.3 Requirements when exercising rights

When exercising rights under this easement, the Grantee and its Authorised Users must:

- (a) keep the Irrigation Tank clean and free from silt, rubbish and debris or other obstruction;
- (b) maintain and repair the Irrigation Tank so that it functions in a safe and efficient manner;
- (c) cause as little inconvenience as practicable to the Grantor and any occupiers of the Lot Burdened;
- (d) cause as little damage as practicable to the Lot Burdened and any personal property or improvements on the Lot Burdened; and
- (e) if any damage is caused:
 - (i) promptly make good and repair such damage to the reasonable satisfaction of the Grantor; and
 - (ii) (if relevant) restore the Lot Burdened as nearly as is practicable to its former condition (including, if relevant and without limitation, by restoring any

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excavated surface as nearly as possible to its original state and making good any collateral damage).

19.4 Obligations of Grantor

The Grantor must not install anything in the Lot Burdened (such as a security device) which would prevent the Grantee or an Authorised User exercising their rights and complying with their obligations under this easement.

20 Terms of Easement for visitor parking numbered 16 in the plan

20.1 Grant of easement

Each owner of a Lot Burdened grants the right for the Grantee to permit their visitors to park motor vehicles in the Easement Site in their Lot Burdened on the terms in this easement.

20.2 Term

The Grantor and the Grantee agree that this easement will expire on the date which is 99 years after the commencement date of the Lease.

20.3 Requirements when exercising rights

- (a) The Grantee must take all reasonable action to ensure that their visitors:
- (i) park motor vehicles in the Easement Site on a temporary basis only;
 - (ii) do not obstruct the use of the Lot Burdened;
 - (iii) do not park or stand a motor vehicle on any part of the Lot Burdened other than on the Easement Site;
 - (iv) do not litter or soil the Easement Site of the Lot Burdened; and
 - (v) do not damage the lot burdened.

21 Terms of Easement for drainage of water numbered 17 in the Plan

21.1 Creation

Subject to clause 21.2, an easement for drainage of water is created in the terms of Schedule 8 part 8 of the Act.

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21.2 Buildings and structures

The parties acknowledge that the Grantor may erect a building or other structure over the site of the easement, but must not damage the drainage structure.

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Signing Page

[INSERT EXECUTIONS]

6

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practicable (and in any event not more than 5 Business Days after) being requested to do so.

7 Easements required by Precinct Developer Co

7.1 Easements

The parties acknowledge that:

- (a) Precinct Developer Co or a Benefitted Person may require Easements including:
 - (i) for support, Services and access between the lots created by any subdivision of the Land Trust Land or any part of the Land Trust Land, and between those lots and lots adjacent to or in the vicinity of the Land Trust Land;
 - (ii) the construction, retention, maintenance, repair and use of the Services and utilities for the construction and operation of any building or other improvement on the Land Trust Land or any part of the Land Trust Land;
 - (iii) where, and to the extent, the relevant Land Owner has given its prior written approval, structural support of any stratum areas, including temporary or permanent soil nails or anchors; and
 - (iv) Easements required by Approvals;
- (b) subject to the terms of this deed, the Land Owners will sign any document, easement instrument or plan and do all things reasonably necessary to:
 - (i) grant the Easements referred to in clause 7.1(a); and
 - (ii) permit any relevant providers of Services to obtain on reasonable terms and at no Cost to the Land Owners, such Easements over the Land Trust Land as the provider reasonably requires,

provided that the Easements referred to in clause 7.1(a) terminate no later than the date that is 99 years after the commencement date of the Commonwealth Head Lease; and

- (c) Precinct Developer Co or a Benefitted Person must notify the Land Owner of the exact location, dimensions and terms of any easement, covenant or restriction on use it requires under this clause 7 as soon as practicable, but in any event must do so at any time that the Precinct Developer Co or a Benefitted Person seeks the Land Owner's approval to a proposed Subdivision Document in relation to the Land or any part of the Land.

7.2 Refusal to grant or accept relevant Easements

Without limiting any other clause of this deed, the Commonwealth is only entitled to refuse to grant or accept the grant of an Easement referred to in clause 7.1(a) if:

- (a) the Easement is not in the form of Schedule 2 or in terms under Schedule 8 or 8A of the Conveyancing Act 1900 (NSW), with such minor amendments as are strictly necessary to reflect the physical circumstances of the Easement and that do not impose any liabilities on the Commonwealth; or

- (b) the Easement burdens land owned by the Commonwealth in addition to the MIDIT Land; or
- (c) the Commonwealth requires the consent of an owner or occupier of the land to be burdened or other third party and that consent is lawfully refused by that owner or occupier.

7.3 Signing of Easement Instruments

- (a) Precinct Developer Co or a Benefitted Person may give the Land Owners 10 Business Days' notice that it intends to provide an Easement Instrument to a Land Owner for signing or consent as applicable.
- (b) Subject to clause 7.3(g), within a reasonable time after receiving from Precinct Developer Co or a Benefitted Person the Easement Instrument endorsed by an Authority (if required) a Land Owner must:
 - (i) execute the Easement Instrument or provide any consent (as applicable); and
 - (ii) produce the certificates of title the subject of the Easement Instrument at the LPI to enable the registration of the Easement Instrument.
- (c) If the Easement Instrument has been signed by the Land Owner or the Land Owner has consented to the Easement Instrument in writing, then the Land Owner or Land Owners (as applicable) must accept the terms of the Easement Instrument and comply with paragraph (b) within a reasonable time.
- (d) If paragraph (c) does not apply, then the Land Owner may acting reasonably review the terms of the Easement Instrument unless the terms of the easement are:
 - (i) in a form required by an Authority (subject in the Commonwealth's case to obtaining the necessary approvals under the *Public Governance, Performing and Accountability Act 2013* or otherwise to any liability created by the form required by the Authority); or
 - (ii) in terms under Schedule 8 or 8A of the Conveyancing Act 1900 (NSW); or
 - (iii) in terms set out in Schedule 2.
- (e) The relevant Land Owner and Precinct Developer Co or a Benefitted Person (as applicable) must act reasonably to agree the terms of the Easement Instrument to which paragraph (c) and (d) do not apply.
- (f) If the parties have not agreed the terms of the Easement Instrument within 30 Business Days, either party may refer the matter to dispute resolution and clause 19 ("Dispute resolution") will apply, provided that the Commonwealth will not be required to enter any Easement that does not meet the conditions of clause 6.2.
- (g) Once the terms of the Easement Instrument have been agreed under paragraph (e) or determined in accordance with clause 19 ("Dispute Resolution"), the Land Owner or Land Owners (as applicable) must within a reasonable time, execute the Easement Instrument and comply with paragraph (b).

7.4 Registration of instrument(s)

Without limiting clause 6.1, the parties must at the Cost of the person who provides the Easement Instrument under clause 7.3(a) ("Signing of Easement Instruments"), provide reasonable assistance to do all things necessary on their respective parts, to cause the instruments to be registered on the folio (wherever possible) of the register for the relevant part of the Land Trust Land.

7.5 Binding nature of the instrument

If any instrument in clause 7.4 ("Registration of instrument(s)") having been executed by all relevant parties is unable to be registered for whatever reason or remains unregistered, the relevant parties agree that that unregistered instrument is a legally binding deed effective from the date that the instrument binds all parties.

7.6 Costs

Precinct Developer Co must pay all Costs incurred by the relevant Land Owner in any action taken by the Land Owner in connection with the instrument.

28.16 Right to Grant Easements

The parties agree that comprehensive easements including (without limitation) easements for support, services and access may be required between the various Lots created by subdivision under this clause 28 (*Subdivision*).

28.17 Particular Easements

Without limiting the generality of clause 28.16 (*Right to Grant Easements*) the parties acknowledge that:

- (a) easements including easements for services, support and access (pedestrian and vehicular) will be created, the terms of which are to be determined by Precinct Developer Co acting reasonably;
- (b) to the extent that the relevant easements have then been identified, the easements must be created on registration of each Subdivision Plan and Subdivision Instrument creating the Lots the subject of the easements; and
- (c) to the extent that the relevant easements have not been identified as at the time of lodgement of each Subdivision Plan and Subdivision Instrument creating the



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FREEHILLS

29 Moorebank Avenue Works

Lots the subject of the easements, the easements may be created by registration of such other instruments as are acceptable to the LPI.

28.18 Registration of Easements

- (a) MIC and Precinct Developer Co must, at Precinct Developer Co's cost, co-operate with each other and do all things necessary to cause the easements referred to in clauses 28.16 (*Right to Grant Easements*) and 28.17 (*Particular Easements*) to be registered on the folio of the register for each Lot as soon as reasonably practicable on or after the registration of the relevant Subdivision Plan and Subdivision Instrument.
- (b) For the avoidance of doubt, MIC's obligations under clause 28.18(a) include procuring that Land Trust and the Commonwealth take all actions required to grant the easements specified in clauses 28.16 (*Right to Grant Easements*) and 28.17 (*Particular Easements*).

9.12 Right to Grant Easements

The parties agree that comprehensive easements including (without limitation) easements for support, services and access may be required between the various Lots created by subdivision under this clause 9 (*Subdivision*).

9.13 Particular Easements

Without limiting the generality of clause 9.12 (*Right to Grant Easements*) the parties acknowledge that:

- (a) easements including easements for services, support and access (pedestrian and vehicular) will be created (subject to any rights of the relevant registered proprietor of the land under the Landholders Deed), the terms of which are to be determined by Warehouse Development Co acting reasonably;
- (b) to the extent that the relevant easements have then been identified, the easements must be created (subject to any rights of the relevant registered proprietor of the land under the Landholders Deed) on registration of each Subdivision Document creating the Lots the subject of the easements; and
- (c) to the extent that the relevant easements have not been identified as at the time of lodgement of each Subdivision Document creating the Lots the subject of the easements, the easements may be created by registration of such other instruments as are acceptable to LPI.



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SMITH
FREEHILLS

10 Warehouse Tenant restrictions

9.14 Registration of Easements

The parties acknowledge that Land Trust and Warehouse Development Co must, at Warehouse Development Co's cost, co-operate with each other and do all things necessary to cause the easements referred to in clause 9.12 (*Right to Grant Easements*) and clause 9.13 (*Particular Easements*) to be registered on the folio of the register for each Lot as soon as reasonably practicable on or after the registration of the relevant Subdivision Documents.

9.11 Right to Grant Easements

The parties agree that comprehensive easements including (without limitation) easements for support, services and access may be required between the various Lots created by subdivision under this clause 9 (*Subdivision*).

9.12 Particular Easements

Without limiting the generality of clause 9.11 (*Right to Grant Easements*) the parties acknowledge that:

- (a) easements including easements for services, support and access (pedestrian and vehicular) will be created (subject to any rights of the relevant proprietor of the land under the Landholders Deed), the terms of which are to be determined by Terminal Assets Co acting reasonably;
- (b) to the extent that the relevant easements have then been identified under clause 9.12(a), the easements must be created (subject to any rights of the relevant registered proprietor of the land under the Landholders Deed) on registration of each Subdivision Plan and Subdivision Instrument creating the lots the subject of the easements; and
- (c) to the extent that the relevant easements have not been identified as at the time of lodgement of each Subdivision Document creating the Lots the subject of the easements, the easements may be created by registration of such other instruments as are acceptable to LPI.

9.13 Registration of Easements

The parties acknowledge that Land Trust and Terminal Assets Co must, at Terminal Assets Co's cost, co-operate with each other and do all things necessary to cause the easements referred to in clauses 9.10 (*Right to Grant Easements*) and 9.12 (*Particular Easements*) to be registered on the folio of the register for each Lot as soon as reasonably practicable on or after the registration of the relevant Subdivision Document.

10 IMEX Terminal Stage Completion

10.1 Preconditions to acceptance of the IMEX Terminal Stage Completion

The following requirements must be satisfied before Terminal Assets Co achieves IMEX Terminal Stage Completion:

(5)

(Easements/Access arrangements): Precinct Developer Co has procured the grant, or the agreement to the grant, of all easements and rights of access that are necessary for the intended use of the Terminal Expansion Stage, including easements and rights of access that benefit the Terminal Lot and burden other land, and easements and rights of access that burden the Terminal Lot and benefit other land, as required;

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7 Asset management and maintenance

7.1 Asset management and maintenance obligations

- (a) Without limiting clause 37.1(c), Precinct Developer Co must, at all times during the Term:

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- (1) keep the Asset Management Facilities in good and substantial repair and working condition, being a benchmark that must at all times have regard to the requirements of this deed, including the SPR and the Design Requirements;
 - (2) promptly repair any damage to, or defect in, the Asset Management Facilities; and
 - (3) carry out all repairs and maintenance promptly using high quality materials and workmanship and in keeping with the standard, quality and appearance of the Asset Management Facilities in accordance with the requirements of this deed, including the SPR and the Design Requirements.
- (b) Precinct Developer Co acknowledges that MIC is not responsible for any structural or capital maintenance, replacement, repair or upgrades in relation to, arising out of or in connection with the Precinct Facilities.
- (c) Precinct Developer Co is responsible for and must, without limitation, undertake all maintenance, replacement and repairs (including any structural works or capital maintenance, replacement and repairs) in relation to, arising out of or in connection with Precinct Facilities as are required to keep the Precinct Facilities at all times during the Term at an operational standard that it is better than or at least consistent with:
 - (1) usual industry practice and standards from time to time;
 - (2) the operational standard that is from time to time required by law; and
 - (3) usual industry practice from time to time regarding environmental sustainability and care and, in any case, in accordance with any requirements of this deed regarding environmental sustainability and care.
- (d) Precinct Developer Co must develop prior to the commencement of the Operations Phase, and thereafter maintain, an Asset Management System in accordance with the SPR.
- (e) Precinct Developer Co must perform the Asset Management Activities in accordance with:
 - (1) the Asset Management System;
 - (2) the SPR; and
 - (3) the other requirements of this deed,
 so that each Asset remains fit for purpose for the life of the Asset.
- (f) Precinct Developer Co must ensure that all Asset Management Activities comply with the Rail Interface Agreements and the Third Party Agreements, as applicable.

37.2 Maintenance and Asset Management Plan

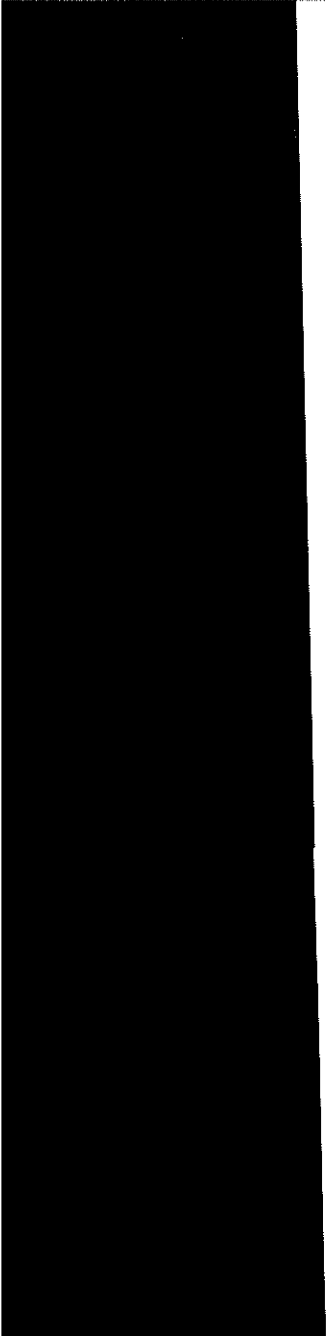
- (a) Precinct Developer Co must prepare and update the Maintenance and Asset Management Plan in accordance with clause 10 (*Project Plans*).
- (b) The Maintenance and Asset Management Plan must:
 - (1) cover all Assets; and
 - (2) otherwise comply with the requirements of the SPR.

11.6 Maintenance

- (a) Without limiting clause 11.6, the Tenant must at all times during the Term:
 - (i) keep the Premises, the Services, the Services Infrastructure and the Tenant's Equipment in good and substantial repair and working condition, being a benchmark that must at all times have regard to the requirements of this Lease and the relevant Permitted Use;
 - (ii) promptly repair any damage to, or defect in, the Premises, the Services, the Services Infrastructure or the Tenant's Equipment; and
 - (iii) carry out all repairs and maintenance promptly using high quality materials and workmanship and in keeping with the standard, quality and appearance of the Premises in accordance with the requirements of this Lease and the relevant Permitted Use.
- (b) The Tenant acknowledges that the Landlord and any Head Landlord is not responsible for any structural or capital maintenance, replacement, repair or upgrades in relation to, arising out of or in connection with the Premises, the Services, the Services Infrastructure or the Tenant's Equipment.
- (c) The Tenant is responsible for and must, without limitation, undertake during the Term all maintenance, replacement and repairs (including any structural works or capital maintenance, replacement and repairs) in relation to, arising out of or in connection with the Premises, the Services and the Services Infrastructure as are required to keep the Premises, the Services and the Services Infrastructure at all times during the Term at an operational standard that is better than or at least consistent with:
 - (i) usual industry practice and standards from time to time;
 - (ii) the operational standard that is from time to time required by Law; and
 - (iii) usual industry practice from time to time regarding environmental sustainability and care and, in any case, in accordance with any requirements of this Lease regarding environmental sustainability and care.
- (d) This clause 11.6 does not apply to Services or Services Infrastructure to the extent that the maintenance, replacement and repairs are the responsibility of a public utility provider provided that the Tenant promptly deals with and makes all prudent requests of those public utility providers to deal with the maintenance, replacement or repair in accordance with Good Industry Practice.

11.7 Services and Services Infrastructure

- (a) Subject to clause 11.7(c), the Tenant is solely responsible for the payment of all costs, charges and expenses for the supply of all Services and Services Infrastructure.

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- (b) The Tenant may, at any time during the Term do anything in relation to, arising out of or in connection with the Services or Services Infrastructure without notice to the Landlord provided that the doing of the relevant thing does not disrupt or interfere with the efficient operation of the Land Trust Land.
- (c) To the extent that a Service is provided to the Premises by a third party supplier, then the Tenant must ensure that it complies with the requirements of that supplier from time to time as necessary to ensure the continued supply of that Service.

8.9 Precinct Management Agreement

- (a) Warehouse Development Co must procure that Precinct Developer Co, in conjunction with Terminal Assets Co must prepare a Precinct Management Agreement for the review of MIC and Land Trust which must include the PMA Principles and the following terms:
 - (1) the rights and obligations of the parties in relation to the shared infrastructure, including:
 - (A) access rights to the Shared Precinct Infrastructure;
 - (B) obligations regarding the maintenance and capital replacement or enhancement of the Shared Precinct Infrastructure; and
 - (C) cost allocation for use of the Shared Precinct Infrastructure;
 - (2) the payment mechanism and payment terms that must apply when charging for the use of the Shared Precinct Infrastructure, including levies and contributions;
 - (3) the operating rules and procedures for the Precinct; and
 - (4) the governance procedures for decision making and administration of the Precinct; and
 - (5) any other relevant provisions typical of a building management statement.
- (b) Warehouse Development Co must procure that Precinct Developer Co, and Land Trust must, co-operate in good faith in the negotiations of the Precinct Management Agreement, and in order to finalise the Precinct Management Agreement prior to the grant of the First Stage Ground Lease.
- (c) If Land Trust does not agree to a change to the draft Precinct Management Agreement, and Precinct Developer Co insists on the change, then the matter will be a dispute and clause 22 (*Dispute Resolution*) will apply.
- (d) Warehouse Development Co must procure that any assignees or transferees of Warehouse Development Co accede to the Precinct Management Agreement within one month after the relevant assignment, transfer or succession in title.



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8 Other provisions

- (e) Warehouse Development Co must provide to Land Trust any information requested by Land Trust to enable Land Trust to satisfy itself that the Precinct Management Agreement accurately reflects the Precinct Management Agreement principles attached as Schedule 6.

8.9 Precinct Management Agreement

- (a) Terminal Assets Co must procure that Precinct Developer Co prepares a Precinct Management Agreement for the review of MIC and Land Trust which must include the following terms:
 - (1) the rights and obligations of the parties in relation to the shared infrastructure, including:
 - (A) access rights to the Shared Precinct Infrastructure;



- (B) obligations regarding the maintenance and capital replacement or enhancement of the Shared Precinct Infrastructure; and
 - (C) cost allocation for use of the Shared Precinct Infrastructure;
 - (2) the payment mechanism and payment terms that must apply when charging for the use of the Shared Precinct Infrastructure, including levies and contributions;
 - (3) the operating rules and procedures for the Precinct; and
 - (4) the governance procedures for decision making and administration of the Precinct; and
 - (5) any other relevant provisions typical of a building management statement.
- (b) Terminal Assets Co must provide to Land Trust with any information requested by Land Trust to enable Land Trust to satisfy itself that Precinct Management Agreement accurately reflects the PMA Principles.
 - (c) Terminal Assets Co must procure that Precinct Developer Co, and Land Trust must, co-operate in good faith in the negotiations of the Precinct Management Agreement, and in order to finalise the Precinct Management Agreement prior to the grant of the First Stage Ground Lease.
 - (d) If Land Trust does not agree to a change to the draft Precinct Management Agreement, and Precinct Developer Co insists on the change, then the matter will be a dispute and clause 21 (*Dispute Resolution*) will apply.
 - (e) Terminal Assets Co must procure that any assignees or transferees to Terminal Assets Co accede to the Precinct Management Agreement within one month after the relevant assignment, transfer or succession in title.



Schedule 6

Principles of the Precinct Management Agreement

Capitalised terms used in this principles document have the same meaning given to that term in the Development and Operations Deed.

Drafting note: The Precinct Management Agreement will be prepared using the Precinct Management Principles as contemplated by the following clauses of the Project Agreements:

- (a) clause 5.6(b)(1)(A) of the Development and Operations Deed;
- (b) clause 12.2(b)(1) of the Multi-Party Deed;
- (c) clause 4.3(b)(4)(1) of the Security of Tenure Deed (Terminal Leases);
- (d) clause 5.3(a)(4) of the Security of Tenure Deed (Warehouse Leases); and
- (e) clause 1.15(b)(1) of the Rail Access Deed.

Initial Members	<ul style="list-style-type: none"> Moorebank Intermodal Company Limited Qube RE Services Pty Limited in its capacity as trustee of the Moorebank Industrial Terminals Assets Trust Moorebank Precinct Nominees Proprietary Limited in its capacity as trustee of the Moorebank Precinct Land Trust Qube RE Services (No. 2) Pty Limited in its capacity as trustee of the Moorebank Industrial Warehouse Trust Qube RE Services Pty (No. 2) Pty Limited in its capacity as trustee of the Moorebank Industrial Terminals Operation Trust
Object	<p>To ensure that appropriate arrangements are made for:</p> <ul style="list-style-type: none"> the management and operation of the Precinct; and the proper repair and maintenance of the Precinct Facilities; the fair apportionment of costs of repair and maintenance and upgrading of the Common Facilities on the Precinct; and the keeping of certain insurances.
Introductory Clauses	<p>Clauses relating to:</p> <ul style="list-style-type: none"> the components of the Precinct, leasehold structure and accession; and acceptance by Members to be bound by the Precinct Management Agreement
Additional Members	<p>Requirement for:</p> <ul style="list-style-type: none"> all occupiers (ie leaseholders of the Land Trust Land furthest down the chain (in occupation) being Precinct Developer Co's Subtenants; the Approved Operator; and Rail Trust (if it has any obligations under the agreement), <p>to become Members.</p>
Use of Common Facilities	<ul style="list-style-type: none"> This part will explain what Common Facilities are and which Members have the right to use the Common Facilities. Common Facilities will include: <ul style="list-style-type: none"> the generic list of facilities set out in the agreement; any part of the precinct which gives access to and from a Common

	<p>Facility by the most direct route;</p> <ul style="list-style-type: none"> – any rooms or areas in which the Common Facilities are located; – fixtures, fittings and equipment in any such room; – parts or consumables used in the maintenance, repair, operation, cleaning and replacement of Common Facilities. <ul style="list-style-type: none"> • Each Member (in common with its Authorised persons) will have the right to access Common Facilities which it is entitled to use under the Precinct Management Agreement. • This part will prescribe rules in relation to the use of Common Facilities and working within the Precinct.
Management of Common Facilities	<ul style="list-style-type: none"> • This part explain how a Management Committee is formed under the deed. • The Committee will set up an administrative and sinking fund into which the Precinct Levy will be paid.
Sharing of Costs of Common Facilities	<ul style="list-style-type: none"> • This part will detail the division of costs of Common Facilities amongst Members and the calculation of a Precinct Levy.
Insurance	<p>This part will explain the obligation of Members in relation to insurances at the Precinct and the insurance which will be effected by the Management Committee on behalf of Members.</p>
Management Committee	<ul style="list-style-type: none"> • This part will explain the rights and obligations of the Management Committee. • The Committee will have the right to add or remove Common Facilities and change or adjust the cost allocation of Common Facilities. • The Committee will keep an administrative fund and sinking fund. • Land Trust will have a right to vote in relation to matters where it is liable to contribute to costs.
Meeting and procedures of the Management Committee	<p>This part will explain the procedures for convening and holding meetings and emergency meetings, notice and quorum requirements and resolutions required for decisions of the Management Committee.</p>
Financial Management	<p>This part will explain the procedures for preparing budgets, financial statements and levying processes for contributions to meet costs under the deed.</p>
Changes in ownership	<p>This part will explain an existing Member's obligation to procure a new Member to sign an Acknowledgement Document.</p>
Development Work	<p>This part will explain the rights of Precinct Developer Co (and any other authorised person under the Development and Operations Deed) to carry out Development Work (including rectification of defects) and redevelopment in accordance with the Development and Operations Deed.</p>
Rail Access Charge	<p>The Rail Access Charge may be a cost (for relevant Members) that will be included in the calculation of the Precinct Levy.</p>
Miscellaneous	<ul style="list-style-type: none"> • This part will set out the procedures for resolving of disputes and how to serve notices. • This part will also include provisions regarding default notices under leases and annual lease reports to streamline reporting and the service of services under leases. • Provisions setting out any interface arrangements under the Development and Operations Deed, Security of Tenure Deeds and Multi Party Deed.
Dictionary	<p>This part contains a dictionary and explains how to interpret the deed.</p>

APPENDIX D FILL IMPORTATION MANAGEMENT PROTOCOL

FILL IMPORTATION MANAGEMENT PROTOCOL

Purpose and Objective

This protocol outlines the procedures for the management of fill importation to the Moorebank Precinct Project. This document is to be referenced with the:

- Early Works Spoil Management Plan (EWSMP)
- Early Works Traffic and Access Management Plan (EWTAMP)
- Construction Traffic and Access Management Plan (CTAMP)
- Construction Spoil Management Plan (CSMP).

Procedure

To ensure the importation of fill (i.e. volumes and truck movement) is documented and carried out in accordance with the Moorebank Precinct East and Moorebank Precinct West project requirements, the following must be implemented:

- Construction Contractor to forecast fill import volume and truck movement requirements
- Principal's Representative to review and allocate fill volumes and truck movements amongst the Construction Contractors operating on site
- Monitoring of total fill volumes and truck numbers at the gate by the Construction Contractor(s)
- Reporting total fill volumes and total truck numbers by the Construction Contractor(s) to the Principal's Representative.

Forecasting Fill Import Requirements

The Construction Contractor will forecast the daily fill requirements (in m³) for the Construction Contractor's operating site. The Construction Contractor will send an email to the Principal's Representative on the first working day of each fortnight with the estimated, daily fill requirements for the following fortnight. The Principal's Representative will review the estimated fill import requirements for each of the operating sites. The Principal's Representative will then either sign off on the estimated fill volumes or request changes to the fill volumes for the respective operating site via email.

Forecasting Truck Movement Requirements

The Construction Contractor will forecast the daily truck movements required for fill importation for the Construction Contractor's operating site. If applicable to the operating site, the daily truck movements required for other construction activities should also be estimated. The Construction Contractor will send an email to the Principal's Representative on the first working day of each fortnight with the estimated, daily truck movements for the following fortnight. The Principal's Representative will review the estimated truck movement requirements for each of the operating site. The Principal's Representative will either sign off on the estimated truck movements or request changes to the truck movement for the respective operating site via email.

Monitoring Material as it Enters the Site

The following will apply at the Construction Contractor's operating site:

- Only material classified as virgin excavated natural material (VENM), excavated natural material (ENM) or other material approved by Environment Protection Authority (EPA) will be permitted on the operating site. No imported fill is permitted to enter the site without proving a waste classification report.

- Site Supervisor (or delegate) will be advised on the source and relevant truck details for each truck supplying fill to the site
- Each truck load will be visually inspected by the Site Supervisor (or delegate) as it enters the site and as it is tipped to confirm the consistency with the approved material.
 - Should any non-complying material be identified during the inspection, the material will either be reloaded and returned to the supplier or be assessed for waste classification prior to off-site disposal to an appropriate landfill facility at the cost of the source site supplier.
- Each truck load will be documented by the Supervisor (or delegate) in the Imported Fill Tracking Register (or similar tracking documentation) including:
 - Date
 - Time in and out of truck hauling imported fill
 - Truck registration details
 - Source of imported fill
 - Material type and classification
 - Details of the statement of compliance under the *NSW EPA The excavated natural material order 2014*
 - Volume of imported fill
 - Location of stockpiled imported fill
 - Location of final destination of imported fill
 - Details of any sampling performed for purposes of certification.
- Photographs and / or location drawings of the imported fill.

Reporting and Documentation

The following reporting / documentation will apply to the fill importation:

- Waste classification forms:
 - Completed by the supplier (must be suitably qualified professional) for each truck load
 - Completed in accordance with the *NSW EPA Waste Classification Guidelines 2014* and *NSW EPA The excavated natural material order 2014*.
- Imported Fill Tracking Register (or other similar tracking documentation):
 - Completed daily by the Site Supervisor during fill importation activities
- Total daily fill volumes and truck numbers:
 - Reported to the Principal's Representative by the Site Supervisor via email daily
- Total fortnightly fill volumes and truck numbers:
 - Reported to the Principal's Representative by the Site Supervisor via email fortnightly
 - Validation exercise and check between the daily reporting.

All documentation will be kept by the Construction Contractor for future reference.