Table 1	Final Compilation	of Mitigation Measures	s – MPE Stage 2 Proposal

No.	Mitigation measures	Implementation	Applicability			
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure
0.	General environmental management					
0A	Pre-construction works would be undertaken subject to Environmental Work Method Statement (EWMS) (Appendix H of the MPE Stage 2 RtS). Pre- construction works include the following:	Pre-construction	Υ	Y	Y	Y
	• works within Works period A (pre-construction activities), including:					
	 establishment of site access points 					
	 importation of fill for site preparation activities 					
	 installation of site fencing 					
	 remediation and UXO, EO or EOW management where required. 					
	 survey; acquisitions; or building/ road dilapidation surveys; fencing; investigative drilling, excavation or salvage 					
	 clearing any native vegetation within the Amended construction area , with the exception of the southern and eastern swales located outside of the MPE site 					
	establishment of site compounds and construction facilities					
	installation of environmental mitigation measures					
	• utilities adjustment and relocation that do not present a significant risk to the environment, as determined by the Environmental Representative					
	 other activities determined by the Environmental Representative to have minimal environmental impact 					
	 all works as described in Works period A in Section 4 of the EIS and Appendix I of the RtS. 					

No.	Mitigation measures	Implementation	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>	
0B	The Construction Environmental Management Plan (CEMP), or equivalent, for the Amended Proposal would be based on the PCEMP (Appendix G of the EIS), and include the following preliminary management plans:	Construction	Construction	Y	Y	Y	Y
	Preliminary Construction Traffic Management Plan (PCTMP) (Appendix K of the EIS)						
	• Air Quality Management Plan (AQMP) (Appendix M of the EIS)						
	 Erosion and Sediment Control Plans (ESCPs) and Bulk Earthworks Plans (Appendix P of the EIS). 						
	As a minimum, the CEMP would include the following sub-plans:						
	Construction Traffic Management Plan (CTMP)						
	Construction Noise and Vibration Management Plan (CNVMP), prepared in accordance with the <i>Interim Construction Noise Guideline</i>						
	Construction Air Quality Management Plan						
	Flora and Fauna Management Plan						
	A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan						
	Contamination Management Plan						
	Flood Emergency Response and Evacuation Plan						
	• UXO, EO, and EOW -Management Plan						
	Asbestos Management Plan						
	Heritage (Indigenous and Non-Indigenous) Management Plan/s						
	Bushfire Management Strategy						
	Community Information and Awareness Strategy.						

No.	Mitigation measures	Implementation	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure	
0C	The Operational Environmental Management Plan (OEMP), or equivalent, for the Amended Proposal would be based on the following preliminary management plans:	Operation	Υ	Y	₩ <u>Υ</u>	<u>Y</u>	
	Preliminary Operational Traffic Management Plan (POTMP) (Appendix K of the EIS)						
	• Air Quality Management Plan (Appendix M of the EIS)						
	• Stormwater Drainage Design Drawings (Appendix P of the EIS) As a minimum the OEMP would include the following sub-plans:						
	Operational Traffic Management Plan (OTMP)						
	Operational Noise and Vibration Management plan (ONVMP)						
	Air Quality Management Plan						
	Flora and Fauna Management Plan						
	Flooding and Emergency Response Plan						
	• Emergency Response Plan in accordance with the requirements of Clause 153C of the POEO Act and the POEO (General) Regulation (Cl. 98B)						
	Operational Hazard and Risk Management Plan						
	Bushfire Management Strategy						
	Community Information and Awareness Strategy.						
0D	The construction and/or operation of the Amended Proposal may be delivered in a number of stages. If construction and/or operation is to be delivered in stages a Staging Report would be provided to the Secretary prior to commencement of the initial stage of construction and updated prior to the commencement of each stage as that stage is identified.	Construction and Operation	Y	Y	Y	Ŷ	

No.	Mitigation measures	Implementation	Applicability							
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure				
1.	Traffic and Transport									
1A	A Construction Traffic Management Plan (CTMP) would be prepared, based on the PCTMP prepared as part of the EIS (refer to Appendix K of the EIS). The CTMP would detail the management controls to be implemented to avoid, minimise and mitigate impacts of construction of the Amended Proposal to traffic performance on the surrounding road network, pedestrian and cyclist access, and the amenity of the surrounding environment and would include the following key initiatives:	Construction	Y	Y	Y	Ŷ				
	 Review of speed restrictions along Moorebank Avenue and additional signposting of speed limitations to reinforce reduced speed limits during construction of the Amended Proposal 									
	• Restriction of haulage routes through signage and education to ensure, where possible, that construction vehicles do not travel through nearby residential areas to access the Amended construction area, in particular Moorebank (Anzac Road) or the Wattle Grove residential areas									
	 Inform local residents (in conjunction with the Community Information and Awareness Strategy) of the proposed construction activities and road access restrictions that the construction traffic must adhere to and establish communication protocols for community feedback on issues relating to construction vehicle driver behaviour and construction related matters 									
	 Installation of specific warning signs on approach to, and at entrances to, the construction site to warn existing road users of entering and exiting construction traffic 									
	• Establishing pedestrian exclusion zones and walking routes/crossing points which integrate within the existing pedestrian network									
	• Distribution of day warning notices to advise local road users of scheduled construction activities and associated traffic movements.									
	 Installation of appropriate traffic controls and warning signs for areas identified where potential safety risk issues exist 									
	The promotion of car-pooling for construction staff and other shared transport initiatives during the construction phase									

No.	Mitigation measures	Implementation	Applicability	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>		
	 Management and coordination of the transportation of materials to maximise vehicle loads and therefore minimise vehicle movements 							
	 Monitoring of traffic on Moorebank Avenue during peak periods to ensure that queuing at intersections does not impact on other road users 							
	• Reducing, where reasonable and feasible, the volumes of construction vehicles travelling during peak periods, especially if the increase in traffic generated by construction activities impedes on the operation of Moorebank Avenue							
1B	A road Safety Audit on Cambridge Avenue to be undertaken prior to the commencement of the construction of the Amended Proposal to identify the traffic safety risks and determine appropriate mitigations.	Construction	<u>N</u>	N	Y	Y		
1C	Moorebank Avenue would be upgraded for approximately <u>1.4</u> <u>1.5</u> kilometres from approximately <u>95</u> <u>35</u> metres south of the northern boundary of the MPE site to approximately <u>120</u> <u>185</u> metres south of the southern MPE site boundary. The following intersections would also be upgraded as part of the Amended Proposal:	Construction and Operation	Y	Y	N	N		
	Moorebank Avenue / MPE Stage 2							
	Moorebank Avenue / MPE Stage 1 northern access							
	Moorebank Avenue / MPE Stage 1 central access							
	Moorebank Avenue / MPE Stage 1 southern emergency access.							
	The funding of these upgrades would be clarified through discussions with SIMTA, Roads and Maritime and Transport for NSW.							

No.	Mitigation measures	Implementation	Applicability			
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>
1D	It is intended that the POTMP would be further progressed and integrated into the OEMP for the Amended Proposal. Specifically, the following key aspects would be addressed in the OTMP:	Operation	Y	Y	Ν	Y
	Heavy vehicle route management					
	Safety and amenity of road users and public					
	Congestion management on Moorebank Avenue					
	Road user delay management					
	Information signage, distance information and advance warning					
	Driver code of conduct					
	Incident management					
	Traffic monitoring.					
1E	Bicycle and end of trip facilities would be provided in accordance with the <i>City</i> of <i>Sydney Section 3 – General Provisions</i> .	Operation	Y	Υ	N	<u>N</u>
1F	Consultation would be undertaken with relevant bus provider(s) regarding the potential to extend the 901 bus service (or equivalent) and additional regular service bus stops with the aim of maximising public transport accessibility to, from and within the Amended operational area.	Operation	Y	Y	Ŷ	Y
<u>1G</u>	Importation of fill to site during construction of the Amended Proposal is to not exceed a total of 22,000 m ³ of material per day. This limit is to be further reduced by an amount equivalent to any fill being imported to the MPW Stage 2 Proposal (SSD 7709) on the same day such that the combined importation of fill to the Amended Proposal site and MPW site does not exceed 22,000 m ³ on any given day.	<u>Construction</u>	N	N	N	Y

No.	Mitigation measures	Implementation	Applicability	Applicability			
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>	
2.	Noise and Vibration						
2A	A Construction Noise and Vibration Management Plan (CNVMP), or equivalent, would be prepared for the Amended Proposal in accordance with the <i>Interim Construction Noise Guideline</i> (DECC, 2009) (or equivalent), and will include the following:	Construction	Y	Y	Y	Y	
	Identification of nearby residences and other sensitive land uses						
	Description of approved hours of work						
	• Description and identification of construction activities, including work areas, equipment and duration						
	 Description of what work practices (generic and specific) will be applied to minimise noise and vibration 						
	Consider the selection of plant and processes with reduced noise emissions						
	A complaints handling process						
	Noise and vibration monitoring procedures						
	Overview of community consultation required for identified high impact works						
	Induction and training will be provided to relevant staff and sub- contractors outlining their responsibilities with regard to noise						
	 Procedure for approval of any works undertaken outside of the following hours: 						
	 Standard hours of 07:00 am to 18:00 pm Monday to Friday, and 08:00am to 13:00 pm Saturday, 						
	- Out of hours (OOH) work periods:						
	• OOH Period 1 is 6:00am – 7:00am weekdays;						
	 OOH Period 2 is 6:00pm – 10:00pm weekdays 						
	 OOH Period 3 is 7:00am – 8:00am Saturday; and 						
	• OOH Period 4 is 1:00pm – 6:00pm Saturday.						

No.	Mitigation measures	Implementation	Applicability			
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>
2B	Any works undertaken outside of the hours prescribed in mitigation measure 2A would be undertaken in consultation with relevant authorities. Works outside these hours that may be permitted would include:	Construction	Y	Y	Y	Y
	• Any works which would not result in audible noise emissions at any nearby sensitive receptors.					
	• The delivery of oversized plant and/or structures that police or other authorities determine require special arrangements to transport along public roads					
	• Emergency work to avoid the loss of lives, property and/or to prevent environmental harm					
	• Maintenance and repair of public infrastructure where disruption to essential services and/or consideration of worker safety do not allow work within standard construction hours.					
	• Public infrastructure works that shorten the length of the project and are supported by noise-sensitive receivers.					
	• Construction works where it can be demonstrated and justified that these works are required to be undertaken outside of standard construction hours.					
	• Any other work as approved through the CNVMP.					
2D	In the event of any noise or vibration related complaint or adverse comment from the community, noise and ground vibration levels (as relevant) would be investigated. Remedial action would be implemented where feasible and reasonable. The procedures for managing complaints would be provided within the Community Information and Awareness Strategy.	Construction and operation	Y	Y	Y	Y
2E	An Operational Noise Management Plan (ONMP) would be prepared which includes a framework for regular monitoring of operational noise. Monitoring would begin at the commencement of the operation of the Amended Proposal and would be conducted on an annual basis for up to 2 years (after commencement of operations of the Amended Proposal).	Operation	Y	Y	Ν	Y

No.	Mitigation measures	Implementation	Applicability						
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure			
3.	Air Quality								
3A	The Air Quality Management Plan (Ramboll, 2016), included within Appendix M of the EIS, would be further progressed and incorporated into the CEMP for the Amended Proposal. Specifically, the following key aspects would be addressed in the CEMP.	Construction	Y	Y	Y	Y			
	Procedures for controlling/managing dust:								
	Clearing, site preparation and excavation								
	 Deploy water carts periodically during construction to ensure exposure areas and topsoils/subsoil are kept moist. 								
	 Work practices would be modified to manage/control dust by limiting clearing, stripping and spoil handling during periods of adverse weather (hot, dry and windy conditions) and when dust is seen leaving the site. 								
	 The extent of clearing of vegetation and topsoil would be limited to the designated footprint required for construction and appropriate staging of any clearing. 								
	Demolition of existing structures								
	Where possible, materials and structures would be dampened using water sprays prior to demolition. During adverse weather (hot, dry and windy conditions), consideration would be given to modify demolition activities when dust is seen leaving the site. Special consideration, including boundary monitoring would need to be given to the demolition of buildings containing asbestos in accordance with relevant guidelines and legislation.								
	 Haulage and heavy plant and equipment movements 								
	 Water carts would be operated on all unsealed internal roadways and travel routes. 								
	 All vehicles on-site would be confined to a designated route with a speed limit of 30km/hr enforced. 								
	 Trips and trip distances should be controlled and reduced where possible, for example by coordinating delivery and removal of materials to avoid unnecessary trips. 								

Mitigation measures	Implementation	Applicability				
	stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure	
 Dirt track-out should be managed using shaker grids and / or wheel cleaning. Dirt that has been tracked onto public roads would be cleaned as soon as practicable. 						
 All trucks delivering fill or leaving the site with spoil material would have their load covered. 						
Wind erosion						
 Wind erosion from exposed ground would be limited by avoiding unnecessary vegetation and topsoil clearing and limiting to the minimum footprint required. 						
 Wind erosion from temporary stockpiles would be limited by minimising the number of work faces on stockpiles and through temporary stabilisation (compaction of surface, water sprays, seeding, veneering). 						
Roles, responsibilities and reporting requirements:						
 During construction, environmental management would be the responsibility of the construction contractor. The Construction Manager (CM) would be responsible for the day to day construction activities of the Proposal site, including the implementation of dust controls. 						
Construction dust monitoring:						
 Visual checks would be made daily and reported on an environmental inspection report. The visual checks would: 						
 Inspect and report on excessive dust being generated at source (wheel generated dust, scrapers/graders, dozers, excavators, wind erosion). 						
 Inspect and report on water cart activity and effectiveness. 						
 Inspect and report on dust leaving the site. 						
 Non-conformance (dust leaving the site) would be reported immediately to the CM or management. 						
Contingency measures for dust control where standard measures are deemed ineffective.						

No.	Mitigation measures	Implementation	Applicability			
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure
3B	The Air Quality Management Plan (Ramboll, 2016), included within Appendix M of the EIS would be further progressed and integrated into the OEMP for the Amended Proposal. In accordance with the Air Quality Management Plan the following key aspects would be addressed in the OEMP:	Operation	Y	Y	Ν	Y
	Implementation and communication of anti-idling policy for trucks					
	Complaints line for the community to report on excessive idling and smoky vehicles					
	 Procedures to reject excessively smoky trucks visiting the site based on visual inspection. 					
3C	During construction and operation, real-time boundary monitoring would be used to measure site emissions and alert site personnel when dust triggers are breached. This monitoring would determine if the best practice measures are effective and/or if additional reactive controls are needed on any particular day.	Construction and operation	Y	Y	Y	Y
4.	Biodiversity					
4A	A Construction Flora and Fauna Management Plan (CFFMP) would be prepared as part of the CEMP for the Amended Proposal. Native vegetation clearing for southern and eastern swales located outside of the MPE site would not occur until the Flora and Fauna Management Plan is approved. This would include the following:	Construction	Y	Y	Y	Y
	Clear identification of vegetation exclusion zones					
	 Site induction procedure, including briefings regarding the local threatened flora and local fauna of the site and protocols to be undertaken if they are encountered 					
	 A pre-start up check for sheltering native fauna of all infrastructure, plant and equipment and/or during relocation of stored construction materials 					
	Application of speed limits in areas adjacent to native vegetation					

No.	Mitigation measures	Implementation	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>	
4B	The threatened plant populations identified within the Boot lands (to the south) would be protected by a minimum 10 metre buffer between the edge of the area of occupied habitat and the Amended construction area.	Construction	Y	Y	Y	<u>Y</u>	
4C	Potential bat roosting locations in buildings to be demolished would be checked, as far as is practicable, by a qualified ecologist or wildlife carer for presence of bats prior to demolition. Any bats found would be relocated.	Construction	Y	Y	Ν	<u>Y</u>	
4D	A two-stage approach would be undertaken to clearing:	Construction	Υ	Y	Y	<u>Y</u>	
	• Remove non-hollow bearing trees at least 48 hours before habitat trees are removed.						
	 Hollow bearing trees are to be knocked with an excavator bucket or other machinery to encourage fauna to evacuate the tree immediately prior to felling. 						
	• Felled trees must be left for a short period of time on the ground to give any fauna trapped in the trees an opportunity to escape before further processing of the trees.						
	• Felled hollow bearing trees must be inspected by an ecologist as soon as possible (not longer than 2 hours after felling).						
4E	Directional lighting will be used where lighting is required in construction areas to avoid impact on fauna.	Construction	Y	Υ	Y	Y	
4F	Should any animal be injured, the relevant local wildlife rescue agency (e.g. WIRES) and/or veterinary surgery would be contacted as soon as practical.	Pre- construction,	Y	Υ	Y	Y	
	Until the animal can be cared for by a suitably qualified animal handler, if possible minimise stress to the animal and reduce the risk of further injury by:	construction and operation					
	Handling fauna with care and as little as possible.						
	• Covering larger animals with a towel or blanket and placing in a large cardboard box.						
	• Placing small animals in a cotton bag, tied at the top.						
	• Keeping the animal in a quiet, warm, ventilated and dark location.						

No.	Mitigation measures	Implementation	Applicability							
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>				
4G	A Flora and Fauna Management Plan would be prepared as part of the OEMP for the Amended Proposal. This FFMP would focus on minimising impacts on biodiversity values on the adjacent Boot land.	Operation	Y	Y	Ν	Y				
	The FFMP would include measures relating to the monitoring, management and where necessary, eradication of weeds, disposal of green waste, and vehicle/ plant weed wash down protocols if required. Measures included in the FFMP relating to weed management would be prepared in accordance with the requirements of the Noxious Weeds Act 1993.									
4H	Potential indirect impacts to threatened flora species located within the Boot land (known as the Wattle Grove Offset Area) will be managed in accordance with the Biobanking Agreement.	Operation	Ν	N	Ν	Ν				
5.	Stormwater and Flooding									
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:	Construction	Y	Y	Y	Ϋ́				
	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 									

No.	Mitigation measures	Implementation	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>	
	Wheel wash or rumble grid systems installed at exit points to minimise dirt on roads.						
5B	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:	Construction	Y	Y	Y	Y	
	• 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.						
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.	Construction	Y	Y	Y	Y	
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:	Detailed design and Construction	Y	Y	Y	Y	
	Gross pollutant traps (GPTs) at Section 6.2.1						
	 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. 						
5E	A water quality monitoring program for the operational phase of the Amended Proposal would be prepared as part of the OEMP for the Amended Proposal and would detail:	Operation	Y	Y	Ν	Y	
	The frequency and duration of sampling						
	Background water quality conditions						
	Sampling methodology						
	Reporting requirements						

No.	Mitigation measures	Implementation	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure	
	Water quality monitoring would be undertaken for both Anzac Creek and the Georges River and would include the following parameters:						
	Total suspended solids						
	Total phosphorous						
	Total nitrogen						
	Oils and grease.						
5F	A Flood Emergency Response Plan (FERP) would be developed for the operational <u>phase</u> of the Amended Proposal. The FERP would take into consideration, site flooding and broader flood emergency response plans for the Georges River and Anzac Creek floodplains and Moorebank area. The FERP would also include the identification of an area of safe refuge within the Amended Proposal site that would allow people to wait until hazardous flows have receded and safe evacuation is possible.	Operation	Y	Y	Y	Y	
5G	Separated oily wastes would be captured and stored so that they do not enter the stormwater system.	Operation	Y	Y	Ν	Ν	
5H	Measures associated with the OSDs to be developed during the detailed design phase would include:	Pre-construction	N	Ν	Ν	Y	
	 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. 						

No.	Mitigation measures	Implementation	Applicability				
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	 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. 						
6.	Geology, Soils and Land Contamination						
6A	Excavated material would be reused on site where possible. Any excavated material that requires disposal would be subject to waste classification under the <i>Waste Classification Guidelines 2014</i> (NSW EPA, 2014) and would be disposed of at an appropriately licensed facility.	Construction	Y	Y	Y	Y	
6B	Stockpile sites established during construction are to be managed in accordance with stockpile management principles set out in Appendix G of the MPE Stage 2 RtS. The construction contractor would progress the Bulk Earthworks strategy (to be included within the CEMP) which would outline the volumes of imported and exported material, any buffer areas, temporary soil stockpiling areas and fencing of excavations, as required.	Pre- construction and construction	Y	Y	Y	Y	
	Mitigation measures within the Stockpile Management Protocol include:						
	 In order to accept fill material onto site, material characterisation reports/certification showing that the material being supplied is VENM/ENM must be provided. 						
	 Each truck entering the MPE Stage 2 Proposal site will be visually checked and documented to confirm that only approved materials that are consistent with the environmental approvals are allowed to enter the site. 						
	 Only fully tarped loads are to be accepted by the gatekeeper. 						
	 Environmental Assurance of imported fill material will be conducted to confirm that the materials comply with the NSW EPA Waste Classification Guidelines and the Earthworks Specification for the MPE site. The frequency of assurance testing will be as nominated by the Environmental assuror/auditor. 						

No.	Mitigation measures	Implementation	Applicability	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>		
	 All trucks accessing the site for the purpose of clean general fill importation would enter and exit via the existing main MPE Stage 2 site access located in the North-west of the MPE site from Moorebank Avenue. 							
	 Ingress and egress to the stockpiling areas would be arranged so that the reversing of trucks within the site is minimised 							
	 Stockpiles would not exceed ten-metres in height from the final site levels, with battered walls at gradients of 1V:3H 							
	 For any stockpile heights greater than 4 m, benching would be implemented. 							
	 Where reasonable and feasible, and to minimise the potential for erosion and sedimentation of stockpile(s), stockpile profiles would typically be at angle of repose (the steepest angle at which a sloping surface formed of loose material is stable) with a slight concave slope to limit the loss of sediments off the slope, or through the profile and the formation of a toe drain. 							
	• The top surface of the stockpile(s) would be slightly sloped to avoid ponding and increase run off.							
	• Topsoil stockpiles would be vegetated to minimise erosion.							
	 stockpiles would be protected from upslope stormwater surface flow through the use of catch drains, berms, or similar feature(s) to divert water around the stockpile(s). 							
	 A sediment control device, such as a sediment fence, berm, or similar, would be positioned downslope of the stockpile to minimise sediment migration. 							
	 Any water seepage from stockpiles would be directed by toe drains at the base of the stockpiles toward the sediment basins or check dams and away from the emplacement or extraction working face. 							
	 Newly formed stockpiles would be compacted (sealed off) using a smooth drum roller at the end of each working day to minimise water infiltration. 							
	 Haul roads would be located alongside the stockpile to the work/tipping area. As per best practice, the catchment area of haul roads for surface water runoff would be approximately 25-30 m lengths, facilitated by the 							

No.	Mitigation measures	Implementation	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure	
	provision of spine drains which would convey water from the haul road to to to to drains at the base of the stockpile, and then to sediment basins.						
	 Temporary sediment basins would be established in accordance with the ESCP prepared for the site. 						
	 Stockpiling of clean fill material is to be carried out during Works Period A (pre-construction) and Works Period D (bulk earthworks). 						
	 Any imported clean general fill material that would be subject to stockpiling within the Proposal site for more than a 10-day period without being worked on, would be subject to stabilisation works, to minimise the potential for erosion. 						
	 Where the material being stockpiled is less coarse or has a significant component of fines then surface and slope stabilisation would be undertaken. Methods for slope stabilisation may include one or a combination of the following: 						
	 Application of a polymer to bind material together 						
	 Application of hydro-seed or hydromulch 						
	 Covering batters with mulch to provide ground cover. 						
	 Covering batters with geofabric 						
	 Use of a simple sprinkler system for temporary stockpiles, including use of radiating sprinkler nozzles to maintain fine spray over exposes surfaces. 						
	 Other options identified by the Contractor. 						
	 Topsoil stockpiles would be seeded with a grass/legume or nitrogen fixing species (such as acacia) to assist in erosion control and reduce loss of beneficial soil micro-organisms. 						

No.	Mitigation measures	Implementation	Applicability	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>		
6C	A Contamination Management Plan (CMP) (or equivalent) would be prepared and included within the CEMP for the Amended Proposal. The CMP would be prepared in consideration of the outcomes of the Environmental Management Plan (GHD, 2016) and Site Audit Statement and Site Audit Report (JBS&G, 2016) and would contain procedures on the following:	Construction	Y	Y	Y	Y		
	 Handling, stockpiling and assessing potentially contaminated materials encountered during the development works. 							
	A management tracking system for excavated potentially contaminated materials to ensure the proper management material movements at the Amended construction area, particularly during excavation							
	Assessment, classification and disposal of waste in accordance with relevant legislation							
	• A contingency plan for unexpected contaminated materials (unexpected finds protocol), such as materials that are odorous, stained or containing anthropogenic materials, that may be encountered during construction.							
6D	A site-wide UXO, EO, and EOW Management Plan (or equivalent) would be developed for the Amended construction area. This plan would be included within the CEMP and address the unexpected discovery of UXO, EO or EOW during construction.	Construction	Y	Y	Y	Y		
6E	An Emergency Response Plan would be prepared and implemented. The plan would meet the requirements of Clause 153C of the POEO Act and the POEO (General) Regulation (Cl. 98B) and specify the procedure to be followed in the event of a spill, including the notification requirements and use of absorbent material to contain the spill. A spill kit would be provided on the Amended operational area at all times.	Operation	Y	Y	Y	Y		

No.	Mitigation measures	Implementation	Applicability			
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>
6F	 In order to accept fill material onto site, the following will be undertaken: Material characterisation reports/certification showing that the material being supplied is VENM/ENM must be provided. Each truck entry will be visually checked and documented to confirm that only approved materials that are consistent with the environmental approvals are allowed to enter the site. Only fully tarped loads are to be accepted by the gatekeeper. Environmental assurance of imported fill material will be conducted to confirm that the materials comply with the NSW EPA Waste Classification Guidelines and the Earthworks Specification for the MPW site. The frequency of assurance testing will be as nominated by the Environmental assuror/auditor. 	Pre- construction and construction	Ν	N	N	Ŷ
<u>6G</u>	<u>The CEMP would include an Earthworks Specification, which would</u> <u>include details on earthworks material criteria, handling and placement</u> <u>requirements, embankment and cutting formation (including foundation,</u> <u>batter and benching requirements), unsuitable material and bridging layer</u> <u>requirements, conformance testing methods and acceptance criteria (e.g.</u> <u>for material acceptance and compaction control).</u>	<u>Construction</u>	N	N	N	Y
<u>6H</u>	During detailed design, should it be identified that there is the potential for groundwater to be intercepted or affected consultation would be undertaken with NSW DPI.	<u>Detail design</u>	Y	Y	Y	Y
<u>61</u>	During detailed design, should it be identified that there is the potential for groundwater to be intercepted, a Trigger Action Response Plan would be developed.	<u>Detail design</u>	Y	Y	Y	Y
7.	Hazard and risk					
7A	Hazards associated with operation of the Amended Proposal would be identified through a Hazard and Operability Study (HAZOP), which would be undertaken as part of the detailed design.	Detail design	Υ	Y	Y	Y

No.	Mitigation measures	Implementation	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure	
7B	The following measures would be included in the CEMP (or equivalent) to minimise hazards and risks:	Construction	Y	Υ	Y	Y	
	• Construction works, including the storage, handling and use of hazardous construction materials would be undertaken in accordance with the provisions of the <i>Work Health and Safety Act 2011</i> and <i>Work Health and Safety Regulation 2011</i> .						
	All demolition activities would be undertaken in accordance with Australian Standard AS2601-1991 – Demolition of Structures						
	 Safe operational access and egress for emergency service personnel and workers will be provided at all times, and specified in the CEMP. 						
	Regular maintenance and inspection of all environmental and safety protection controls would be undertaken.						
7C	An Asbestos Management Plan would be prepared for the Amended Proposal in accordance with the <i>Code of Practice: How to Manage and Control of</i> <i>Asbestos in the Workplace</i> (WorkCover NSW, 2011). The plan would include, but not be limited to:	Construction	Y	Y	Ŷ	Y	
	Identification of potential (suspected or confirmed) asbestos areas						
	an outline of how asbestos risks would be controlled						
	the identification of each person with responsibilities and details of their responsibilities under this plan						
	• Reference the asbestos register and risk assessment, which would also be prepared prior to construction being undertaken.						

No.	Mitigation measures	Implementation	Applicability			
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure
7D	All asbestos removal works, including the demolition of the eight structures identified as containing asbestos (refer to Figure 14-1 of the EIS) will be undertaken in accordance with the Environmental Management Plan (GHD, 2016) and the following:	Construction	Y	Y	Ν	Y
	• The Code of Practice for the Safe Removal of Asbestos (NOHSC, 2005)					
	 Code of Practice: How to Safely Remove Asbestos (WorkCover NSW, 2011)¹ 					
	Asbestos removal would be carried out by an appropriately licensed asbestos removalist. The licensing requirements for asbestos removal are specified in the <i>Code of Practice How to Safely Remove Asbestos</i> (WorkCover NSW, 2011).					
7E	Dangerous goods entering or leaving the Stage 2 site must be notified in advance in accordance with the International Maritime Organisation (IMO) and regulations pertaining to the International Convention for the Safety of Life at Sea (SOLAS).	Operation	Y	Y	Ν	N
7F	Handling of dangerous goods including unpacking from containers and storage within warehouses on the Amended operational area would be undertaken in accordance with the <i>Storage and Handling of Dangerous Goods Code of Practice</i> (WorkCover NSW, 2005).	Operation	Y	Y	Ν	N
7G	Staff involved in the transport and handling of dangerous goods within the Amended Proposal site would receive training regarding the contents of the dangerous goods provisions and their roles and responsibilities. All training would be recorded and maintained in accordance with the appropriate competent authority (SafeWork NSW).	Operation	Y	Y	Ν	Y
7H	Design, installation and maintenance of gas reticulation infrastructure would be undertaken in accordance with <i>Australian Standard AS 2944-1 (2007): Plastic</i> <i>pipes and fittings for gas reticulation – Polyamide pipes and Australian</i> <i>Standard AS 2944-2 (2007): plastic pipes and fittings for gas reticulation –</i> <i>Polyamide fittings.</i>	Operation	Y	Y	Y	Y

¹ Excavation or disturbance of those areas of the Amended construction area where potential for asbestos to be present within the soil is discussed and mitigated in Chapter 13 (Soils, Geology and Contamination).

No.	Mitigation measures	Implementation	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>	
71	Storage of flammable/combustible liquids within the Amended operational area would be carried out in accordance with Australian Standard AS 1940: The Storage and Handling of Flammable and Combustible Liquids. Secondary containment measures would be implemented in a location away from waterways and drainage paths/infrastructure.	Operation	Y	Y	Ν	N	
7J	An Operational Hazard and Risk Management Plan would be developed for the Amended operational area and be implemented as part of the OEMP for the Amended Proposal. This plan would be reviewed regularly and updated should goods entering the site change. As a minimum, the plan would adopt the requirements of the Code of Practice for Storage and Handling of Dangerous Goods (WorkCover NSW, 2005).	Operation	Y	Y	Ϋ́	Ϋ́	
7K	Appropriate testing, alarm systems and work, health and safety (WHS) precautions would be implemented for the safety of personnel and infrastructure.	Operation	Y	Y	Ν	Y	
7L	No hazardous or regulated wastes would be disposed of on site.	Operation	Υ	Y	Ν	<u>Y</u>	
7 <i>M</i>	Should it be identified at a future stage that a tenant or tenants require dangerous goods storage within the Proposal site, a screening test would be undertaken in accordance with SEPP 33.	Operation	Y	Y	N	Ν	
8.	Visual Amenity, urban design and landscape						
8A	The following mitigation measures would be implemented, where reasonable and feasible, to minimise the visual impacts of the Amended Proposal:	Construction	Y	Y	Y	Y	
	Existing vegetation around the perimeter of construction sites would be retained						
	 The early implementation of landscape planting would be considered in order to provide visual screening during the construction of the Amended Proposal 						
	 Elements within construction sites would be located to minimise visual impacts, e.g. setting back large equipment from site boundaries 						
	 Construction lighting, on both ancillary facilities and plant and equipment, would be designed and located to minimise the effects of light spill on surrounding sensitive receivers, including residential areas and the proposed conservation area 						

No.	Mitigation measures	Implementation	Applicability			
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure
	 Design of site hoardings would consider the use of artwork or project information 					
	Regular maintenance would be undertaken of site hoardings and perimeter areas including the prompt removal of graffiti					
	Re-vegetation/landscaping would be undertaken progressively					
	• Where required for construction works, cut-off and directed lighting would be used and lighting location considered to ensure glare and light spill are minimised.					
8B	The following mitigation measures would be implemented, where reasonable and feasible, for the landscaping of the Amended Proposal:	Operation	Y	Y	Y	<u>Y</u>
	 Use of native shrubs and ground covers to form a screening barrier when mature. 					
	A landscaping corridor of screening vegetation to provide informal street character along Moorebank Avenue.					
	 Use of local species as understory planting to support and enhance local habitat values 					
	• Use of seeds collected within the local area for planting to reinforce the genetic integrity of the region, where possible.					
8C	Light for the Amended Proposal would be designed to minimise any direct light spill and would comply with the requirements of <i>Australian Standard AS4282-1997- Control of the Obtrusive Effects of Outdoor Lighting</i> .	Detailed design and operation	Y	Y	Y	Y

No.	Mitigation measures	Implementation	Applicability			
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>
9.	Indigenous Heritage					
9A	An exclusion zone would be provided around previously identified MPE Isolated Artefacts 2, 3 and 4 (refer to Figure 16-2) to avoid potential disturbance of these artefacts during construction of the Amended Proposal.	Construction	Y	Ν	Ν	Y
9B	Management of Aboriginal heritage would be included in the CEMP for the Amended Proposal. Information within the CEMP would include:	Construction	Υ	Y	Υ	Y
	 A summary of the findings of the Aboriginal Heritage Impact Assessment Report (provided at Appendix S of the EIS) 					
	Guidance on unexpected archaeological and cultural finds (including human remains).					
9C	All relevant personnel and contractors involved in the design and construction of the Amended Proposal would be advised of the relevant heritage considerations, legislative requirements and recommendations in the Aboriginal Heritage Impact Assessment Report (provided at Appendix S of the EIS).	Detailed design and Construction	Y	Y	Y	Y
10.	Non-Indigenous Heritage					
10A	A Heritage Management Plan in adherence to NSW Heritage Council guidelines would prepared as part of the CEMP for the Amended Proposal.	Construction	Υ	Y	Ν	Y
10B	Archaeological monitoring and recording would be conducted at PADs V and W, which have the potential to contain archaeological remains of local significance. Monitoring and recording would be undertaken by a suitably qualified archaeologist, who would assess the likely significance of any archaeological deposits encountered, and provide advice regarding appropriate further action. If highly significant remains were identified during monitoring, it would be appropriate to conduct further monitoring for additional sites of former structures or test excavations.	Construction	Y	Ν	Y	Ϋ́
10C	A Heritage Interpretation Strategy should be prepared in consultation with the <i>Heritage Council of NSW</i> prior to the commencement of construction, outlining appropriate interpretive measure for the Amended construction area in the context of the MPE site as a whole.	Construction	Y	Y	Ŷ	Ŷ

No.	Mitigation measures	Implementation stage	Applicability			
			Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>
10D	If unexpected finds are located during works an archaeological consultant would be engaged to assess the significance of the finds and the NSW Heritage Council notified.	Construction	Y	Y	Y	<u>Y</u>
11.	Greenhouse Gas					
11A	Energy efficiency design aspects would be investigated, where practicable as part of the detailed design process in order to reduce energy and fuel consumption.	Detailed design	Y	Y	Ν	Y
11B	Project planning would be undertaken to ensure that the site vehicle movements and construction activities are efficient, to avoid double handling of materials and unnecessary fuel use where possible.	Construction	Y	Y	Y	Y
11C	Fuel efficiency of the construction plant/equipment will be assessed prior to selection, and where practical, equipment with the highest fuel efficiency and which uses lower GHG intensive fuel (e.g. biodiesel) will be used.	Construction	Y	Y	Y	Y
11D	Consideration will be given to material substitution where reasonable and feasible to reduce embodied energy of construction materials.	Detailed design and Construction	Y	Y	Y	Y
11E	Where possible locally sourced materials will be used to reduce GHG emissions associated with transport during construction.	Construction	Y	Y	Υ	Y
11F	Waste would be diverted from landfill, including diversion of spoil, construction and demolition waste, and commercial and industrial waste, where reasonable and feasible. The management of waste would be considered as part of the preparation of the CEMP for the Amended Proposal, detailing the appropriate procedures for waste management.	Construction	Y	Y	Y	Ŷ
11G	Fuel efficiency of the operation plant/equipment will be assessed prior to selection, and where practical, equipment with the highest fuel efficiency and which uses lower GHG intensive fuel (e.g. biodiesel) will be used during operation.	Operation	Y	Y	Ν	Ŷ
11H	Implement adaptation measures to address medium and high rated risks detailed in the climate change risk assessment presented in the Greenhouse Gas (GHG) and Climate Change Risk Assessment (Appendix V of the EIS).	Detailed design Operation	Y	Y	Ν	Y

No.	Mitigation measures	Implementation	Applicability													
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>										
12.	Waste															
12A	Measures to mitigate the effect of the construction waste streams would be incorporated into the Amended Proposal's CEMP, including the following information:	Construction	Y	Y	Υ	Y										
	Avoidance and reuse of material will have priority over recycling															
	Recycling will have priority over disposal															
	Earth excavated from the site will be used for fill material and landscaping where feasible															
	• If possible concrete components will be crushed and reused onsite, with the remainder sent to a recycling facility															
	 Waste generation will be minimised by ordering the correct quantity of materials 															
	Selection of materials which maximise recycled content, while having low embodied water and energy use															
	Selection of materials which maximise durability and lifespan.															
	The following procedures and protocols will be considered within the CEMP regarding waste management:															
	Characterisation of construction waste streams															
	Management of any identified hazardous waste streams															
	 Procedures to manage construction waste streams, including handling, storage, classification, quantification, identification and tracking 															
	Mitigation measures for avoidance and minimisation of waste materials															
	Procedures and targets for reuse and recycling of waste materials.															
	 Inclusion of the waste management strategies included in the Concept Plan Statement of Commitments for construction waste management. 															

No.	Mitigation measures	stage Warehousing Freight Moorebank										
			Warehousing		Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>						
12B	Measures to mitigate the effect of the operational waste streams would be incorporated into the Amended Proposal's OEMP, including the following information:	Operation	Y	Y	Ν	N						
	Addressing waste management requirements and goals in staff inductions											
	 Providing staff access to documentation outlining the facility's waste management requirements 											
	Appropriate areas shall be provided for the storage of waste and recyclable material including:											
	 Locating recycling bins in kitchen areas beside general waste bins to prevent contamination of recycling 											
	 Positioning paper recycling bins close to printer / photocopying equipment 											
	 Establishing bays or containers for recyclable waste generated through de-stuffing 											
	 Minimising general waste bins at desks but providing adequate container and paper recycling to encourage sorting of recyclables 											
	 Ensuring warehouse tenants are providing adequate bin storage for the expected quantity of waste 											
	 Standard signage on how to use the waste management system and what materials are acceptable in the recycling will be posted in all waste collection and storage areas 											
	• Waste management planning incorporating principles of the waste hierarchy											
	All domestic waste shall be collected regularly and disposed of at licensed facilities											
	 By ensuring bins are placed in the correct location and access ways are clear waste collection vehicles will be able to service the development efficiently and effectively 											
	 An education programme and on-going monitoring will to be implemented for training personnel to properly sort and transport waste into the right components and destinations 											

No.	Mitigation measures	Implementation	Applicability	Applicability				
		stage	Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> infrastructure		
	Sewage waste will be discharged to Sydney Water sewerage infrastructure in accordance with Sydney Water requirements							
	Trade waste will be discharged to the sewer through a trade waste agreement with Sydney Water							
	Inclusion of the waste management strategies included in the Concept Plan Statement of Commitments for operational waste management.							
13.	Bushfire							
13A	A bushfire management strategy, or equivalent, will be prepared as part of the CEMP for the Amended Proposal. The strategy will include:	Construction	Y	Y	Y	Y		
	Emergency response plans and procedures							
	 Restrictions on activities (namely hot works) that cannot be undertaken on total fire ban days within areas of high Bushfire Hazard Rating, unless otherwise advised by the NSW Rural Fire Service. 							
	• All construction site offices and temporary buildings will be located outside buffer areas to ensure minimum setbacks of 10 m.							
	All construction site offices will be accessible via access roads suitable for firefighting appliances similar to NSW Rural Fire Service category 1 tankers.							
13B	A bushfire management strategy, or equivalent, would be prepared as part of the OEMP for the Amended Proposal. In particular, the strategy would ensure management of landscaped areas within the Stage 2 site would be undertaken to maintain minimum dry fuel loads.	Operation	Y	Y	Y	Y		
14.	Property and infrastructure							
14A	As relevant, further assessment of services demand, infrastructure requirements and augmentation works, in consultation with relevant infrastructure and service providers would be undertaken.	Detailed design	Y	Y	Y	Y		

No.	stare	Implementation	Applicability			
		Warehousing	Freight village	Moorebank Avenue Upgrade	<u>Site</u> <u>infrastructure</u>	
15.	Socio-economic					
15A	A community information and awareness strategy would be included in the CEMP and would outline measures to maintain communication with the community and all relevant stakeholders throughout the construction process the Amended Proposal.	Construction	Y	Y	Y	Ŷ
	Additionally, written notification would be provided to potentially affected and adjoining land owners prior to commencement of site operations.					
15B	The Operational Environmental Management Plan (OEMP) would include measures to engage with stakeholders and to manage and respond to feedback received during the operation of the Amended Proposal.	Operation	Y	Y	Ν	Y