



## APPENDIX C CONSOLIDATED MITIGATION MEASURES FOR SSD-46516461 AND SSD-10448(MOD 3)

The following **Appendix C** outlines the recommended mitigation measures in response to potential impacts identified in Section 7 of this EIS. The structure of mitigation measures is based on the DPIE's hierarchy of approaches for managing impacts identified in the *Draft Environmental Impact Assessment Guidance Series* released by DPE in June 2017, as:

- **Performance based measure** – identify performance criteria that must be complied with to achieve an appropriate environmental outcome but do not specify how the outcome is to be achieved.
- **Prescriptive measure** – require action to be taken or specify something that must not be done.
- **Management based measure** – identify one or more management objectives that must be achieved through the implementation of a management plan.

Following the implementation of appropriate mitigation measures as recommended, it is determined that the proposal will not result in any significant adverse impacts on the surrounding environment.

A consolidated set of mitigation measures required for each of the environmental and social impacts identified in Section 7 of the EIS and Section 7 of the Amended Development Report are outlined in **Table 1** below. The mitigation measures directly respond to each impact and are based upon the range of technical and specialist consultant reports appended to the EAR. The type of mitigation measure as noted within the table below are as follows:

- 'Pe' – performance based mitigation measure. or
- 'Pr' – prescriptive based mitigation measure, or
- 'Ma' – management based mitigation measure.



Table 1 MOD 9 Mitigation Measures

Issue	Potential Impacts	Mitigation Measures	Type of Measure (Pe/Pr/Ma)
Acoustic	<p>Acoustic impacts to nearby sensitive receivers resulting from the updated vehicle parking locations, travel paths and operations.</p> <p>The proposal will result in a minor exceedance to the NML5 night-time criteria, the acoustic impacts remain within the acceptable limits identified in NPfI.</p>	<p><b>Warehouse 9 Development - SSD-46516461</b></p> <p>Potential feasible and reasonable mitigation measures have been considered during the various design phases of the proposal, including several that were considered through the original Concept Approval and others that have been (or can be) conditioned as part of an approval. These measures include are typical noise management measures, consistent with the established measures under SSD-10448:</p> <ul style="list-style-type: none"> <li>▪ Optimising site layout to minimise noise emissions from the site.</li> <li>▪ Use broadband and/or ambient sensing alarms on trucks and forklifts where they are required to reverse during the night-time.</li> <li>▪ Appropriate design of site layout to minimise the need for trucks to stop or brake outside of loading docks with line of sight to residential receivers.</li> <li>▪ Production of an operational noise management plan.</li> <li>▪ Noise monitoring of the post construction operational period.</li> </ul> <p>Other operational opportunities could involve:</p> <ul style="list-style-type: none"> <li>▪ Reducing peak 15-minute heavy vehicle movements across</li> </ul>	Pe

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		<p>the development by staggering delivery/pickup times.</p> <ul style="list-style-type: none"> <li>▪ Reducing peak 15-minute light vehicle movements across the development by staggering shift change times for employees.</li> <li>▪ Minimising the concurrent use of forklift and other mobile plant outside the warehouses (i.e. in hardstand area) and/or limiting their use to the less sensitive daytime and evening periods.</li> <li>▪ The use of quieter mobile plant options, such as electric forklifts instead of gas-powered forklifts.</li> <li>▪ Locating fixed mechanical plant away from the most-affected sensitive receivers, such as ground-level locations instead of rooftop locations, and/or shielded behind the warehouse/office structures.</li> <li>▪ Best management practice – such as switching vehicles and plant off when not in use, no yelling/swearing/loud music onsite, education of staff and drivers regarding noise impacts, regular maintenance of plant and equipment to minimise noise emissions, use of silent or non-tonal reverse alarms instead of tonal alarms, minimising use of reverse alarms by providing forward manoeuvring where practicable.</li> </ul> <p>Indicative noise barrier locations have been identified as a possible mitigation measure and several noise barriers have been modelled in the western area of the site to help minimise noise levels to the west and south of the development. The barriers</p>	

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		<p>have been modelled along the western edge of the Lot 1, parts of the northern and western edges of Lot 8, and parts of the western and southern edges of Lot 9. The barriers were modelled with a height of 2 m. Increasing the barrier height up to 5 m did not have significant additional acoustic benefit compared to 2m.</p> <p>The barrier locations would be confirmed as designs are finalised during detailed design.</p> <p><b>SSD-10448 MOD3</b></p> <p>The recommended acoustic mitigation measures as part of MOD 3 are consistent with those established under approved concept development (SSD-10448).</p> <p>Ensure development does not exceed appropriate noise limits with consideration of the NPfl requirements and the update site layout.</p> <p>Continued restriction of strong, low frequency content for the warehouse plants' tonal characteristics.</p>	
Water and Energy Usage	<p>Proposed warehouse may result in impacts to the water and energy usage of the development.</p> <p>The Warehouse 9 development and MOD 3 development is to be delivered in accordance with the ESD principles committed to as part of SSD-10448. No additional adverse impacts are</p>	<p><b>Warehouse 9 Development - SSD-46516461</b></p> <p>The development will establish the appropriate ecologically sustainable design elements to mitigate any adverse impacts to water and energy usage. Such elements include rainwater harvesting, natural ventilation, efficient HVAC performance etc.</p>	Ma



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	<p>anticipated.</p>	<p><b>SSD-10448 MOD3</b></p> <p>No additional mitigation measures are required beyond those established under SSD-10448 approval. Consistent with original approval, the modified proposal will maintain the appropriate ecologically sustainable design elements to mitigate any adverse impacts to water and energy usage. Such elements include rainwater harvesting, natural ventilation, efficient HVAC performance etc.</p>	
Air Quality	<p>Dust, air quality and odour impacts generated by the SSD-14408 MOD 3 and Warehouse 9 construction.</p> <p>The development construction and operations will see negligible change from the approved estate concept approval with consideration of the nearest sensitive receivers.</p>	<p><b>Warehouse 9 Development - SSD-46516461 and SSD-10448 MOD3</b></p> <p>The Warehouse 9 development mitigation measures will be consistent with the measures established under the approved, estate wide concept approval (SSD-10448). No additional mitigation measures are required for the AIE as to be modified by MOD 3 beyond those established under SSD-10448 approval.</p> <p>The proposal will be supported by:</p> <ul style="list-style-type: none"> <li>▪ standard air quality control measures</li> </ul>	Pe

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		<ul style="list-style-type: none"> <li>standard dust minimisation measures</li> <li>standard odour mitigation measures for construction</li> </ul>	
Visual Impact Assessment	<p>Visual impacts onto the nearby residential receivers and viewpoints.</p> <p>The proposed warehouse 9 construction will not result in any change in visual impact ratings from the established, estate wide concept proposal.</p>	<p><b>Warehouse 9 Development - SSD-46516461 and SSD-10448 MOD3</b></p> <p>The Warehouse 9 development mitigation measures will be consistent with the measures established under the approved, estate wide concept approval (SSD-10448). No additional mitigation measures are required for the AIE as to be modified by MOD 3 beyond those established under SSD-10448 approval.</p> <p>The proposal will be supported by the appropriate landscape screening in accordance with the updated landscape plans.</p>	Ma
Stormwater and Drainage	Potential impacts to water quantity and quality due to the SSD-10448 MOD 3 and Warehouse 9 construction.	<p><b>Warehouse 9 Development - SSD-46516461</b></p> <p>Provision of estate detention basin including 'filterra' proprietary bio-retention system and warehouse 1 &amp; 3 rainwater tanks and Gross Pollutant Traps (GPTs) as approved under the initial SSD-10448 and MOD2. These will comply with the Technical Guidance for achieving Wianamatta-South Creek stormwater management targets.</p> <p>These interim waterway health measures would be provided prior to issuance of occupancy certificate, unless otherwise agreed with DPE, noting the development may be integrated into the regional</p>	Pr

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		<p>stormwater system as required in Condition B6.</p> <p>It is considered that the above amended approach to stormwater management and waterway health is acceptable to DPE and EHG and will meet the appropriate technical guidance on this matter.</p> <p><b>SSD-10448 MOD3</b></p> <p>No additional mitigation measures are required beyond those established under SSD-10448 approval. Consistent with original approval, the proposal includes the appropriate water management measures (e.g. WSUD systems, stormwater management systems, erosion and sediment controls)</p>	
Traffic, Transport and Parking	<p>An assessment of the modified (SSD-10448) MOD 3) GFA, parking, access arrangements and traffic impacts.</p> <p>Impacts to the surrounding traffic levels as well as to the swept path and access arrangements across the site.</p> <p>The Warehouse 9 operations will see a reduced level of parking demand compared to the rates identified in the concept proposal (to be modified by MOD 3).</p>	<p><b>Warehouse 9 Development - SSD-46516461</b></p> <p>A Sustainable Travel Framework has been prepared to encourage the use of alternative transport and the reduce the reliance of vehicles.</p> <p><b>SSD-10448 MOD3</b></p> <p>No mitigation measures are required beyond those established under the approved, estate wide concept approval (SSD-10448).</p> <p>No mitigation measures are required for the intended access arrangements.</p>	Pr

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Salinity	Impact of the warehouse 9 development on the existing salinity processes and salinity damage	<p><b>Warehouse 9 Development - SSD-46516461</b></p> <p>Management measures to be established during the construction phases including the following:</p> <p><b>Earthworks:</b> vegetation cover maintenance, surface grading, erosion control and sediment control measures</p> <p><b>Soil importation:</b> high quality material is to be imported onto the site. No highly saline or contaminated soils are to be imported.</p> <p><b>Gardens and Landscaped Areas:</b> specific plant species are to be used in accordance with the soil salinity. Water logging is also to be minimised through the appropriate plant species and landscaping design.</p> <p><b>Roads, Footpaths and Hardstand Areas:</b> these surfaces are to be graded to prevent ponding and infiltration. Minimisation of infiltration should be achieved across the road, footpath and hardstand connections, services are to be below hardstand surfaces where possible, and a damp-proof course or membrane can be provided below slabs.</p> <p><b>Surface Water, Stormwater and Drainage:</b> the temporary water retaining structures and drainage infrastructure should reduce disturbance of natural drainage patterns, minimize infiltration and water logging.</p> <p><b>Durability of Concrete Structures and Steel Structures in Contact</b></p>	Ma



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		with the Ground: both concrete and steel structures are to be designed in accordance with the relevant Australian Standards.	
Flood Impacts	The site is affected by 100-year overland flows. Potential impacts to flood flows and runoff into the existing water management infrastructure.	<b>Warehouse 9 Development - SSD-46516461</b>  Mitigation measures established under the approved Stage 1 and Concept Approval (SSD-10448) will manage the potential flooding impacts generated by the Warehouse 9 job. No additional management measures are required for the Warehouse 9 scheme	Pr
Groundwater	Health and environmental impacts generated by the existing groundwater during groundwater dewatering and construction works.	<b>Warehouse 9 Development - SSD-46516461</b>  Conduct works in accordance with the established Groundwater Management Plan including management measures, groundwater quality guidelines and the appropriate treatment or reuse.	Ma
Contamination	Health and environmental impacts generated by contaminants, dam sediments, water pollution, groundwater with moderate EC and ACM. These potential impacts are to be mitigated and addressed during the proposed construction works.	<b>Warehouse 9 Development - SSD-46516461</b>  Remediation and validation works and procedures to be undertaken in accordance with the remediation action plan established for the site.	Pr
Bushfire	The modification has been assessed and deemed to comply with the requirements of Planning for Bushfire Protection 2019 and is considered generally consistent with the previous bushfire report, prepared by Australian Bushfire Protection	<b>SSD-10448 MOD3</b>  <ul style="list-style-type: none"> <li>At the commencement of building works and in perpetuity, an Asset Protection Zone shall be established and maintained as per Figure 7. The APZ shall be established and maintained as</li> </ul>	Pr



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	Planners Pty Ltd, dated 17 October 2019.	<p>an inner protection area as outlined within Planning for Bushfire Protection 2019 and the NSW RFS document 'Standards for Asset Protection Zones'.</p> <ul style="list-style-type: none"><li>▪ Fire hydrants are provided in accordance with Building Code of Australia E1.3, AS2419.1:2005.</li><li>▪ Buildings are constructed in accordance Australian Standard AS 3959-2009 Construction of buildings in bushfire-prone areas (AS 3959-2018) to the extent identified in Figure 8.</li><li>▪ Landscaping to the site is required to comply with the Aspect Industrial Estate, Mamre Rd, Kemps Creek Landscape Masterplan MOD3, prepared by Site Image, dated June 2022.</li></ul>	