

Appendix 4: Mitigation Measures Table

Matter	Mitigation Measure	Reference
Traffic, Transport and Accessibility	Construction traffic management • Implementation of the finalised Construction Traffic Management Plan • Application of vehicle management principles. • Site induction for all workers and subcontracts engaged on-site. • Provision of temporary on-site parking for key contractors and staff. • Encourage carpooling to reduce reliance on private vehicles and minimise parking demands. • Should parking be not available, it is the incumbent contractor's responsibility to prepare relevant plans and documentation to ensure contractor parking demand and associated management measures are documented, implemented, continually monitored and managed. Green Travel Plan • Ongoing implementation of the measures in the finalised Green Travel Plan.	Section 6.7 Appendix 14
Sustainability	• Provision of a Building User Guide that enables building users to optimise the building's environmental performance. • A sub-contractor will be engaged to maintain the facility in accordance with the operations and maintenance manuals during the 12-month defects liability period. • A PV solar system of at least 3,675 kW is proposed. ○ The proposed 3,675 kW PV solar system will offset approximately 5,097 MWh/year of energy usage. ○ The estimated greenhouse gas CO2 emission saving is approximately 3,415,141 kgCO2/annum. • Low VOC paints, carpet and sealant will be used for the offices in accordance with the Green Star requirements. • AC and lighting control provided to offices. • Provision of bicycle parking spaces. • 5% of total parking spaces are dedicated for electrical cars with charging stations proposed. • High-performance glazing in all air-conditioned areas to satisfy Section J requirements.	Section 6.13 Appendix 24

Matter	Mitigation Measure	Reference
	• Adequate ventilation will be supplied in accordance with AS1668. • Daylight-controlled LED lighting for the warehouse instead of metal halide, resulting in a considerable energy reduction and reduced maintenance. • Motion sensors to all LED lights within the warehouses and offices. • Solar hot water or heat pump system. • Power sub-metering to enable continued review of power consumption for the offices and warehouse. • The development will strive to achieve 10% cement replacement with SCMs. • Encourage the use of materials with a favourable life cycle assessment. The following factors will be evaluated and considered based on feasibility: ○ Fate of material ○ Recycling / re-use ○ Embodied energy ○ Biodiversity ○ Human health ○ Environmental toxicity ○ Environmental responsibility • Low flow fixtures and fitting including taps and shower heads. • Selection of endemic and low maintenance landscaping species. • 200kL Rainwater tanks have been proposed for rainwater harvesting and reuse for landscape irrigation and flushing of toilets. • In line with Goodman Waste Management strategy, 90% of the C&D waste will be diverted from landfill. • Goodman will provide appropriate waste collection areas to encourage waste segregation at source, efficient collection by waste contractors and efficient waste management by tenants.	
Biodiversity	Light Impacts • Design all external lighting in accordance with AS/NZS 4282:2019 and IDA/ADSA Dark Sky Principles – fully shielded, downcast, and with 0° upward light output • Position lighting poles and fittings inward facing toward the development footprint and away from the C2 zone	Section 6.9 Appendix 8b

Matter	Mitigation Measure	Reference
	• Use warm-spectrum LEDs (<3000 K) and limit blue-rich or high-CCT light sources • Apply adaptive lighting controls (motion sensors, dimmers, or time switches) to reduce illumination during low-activity periods (10 pm–5 am) • Avoid spotlighting, floodlighting, or high-mounted lighting near the conservation interface; where necessary, use baffled, directional fittings • Develop a Lighting Management Plan integrated into the Operational Environmental Management Plan (OEMP), including lux contour mapping, maintenance schedule, and compliance verification. • Educate site staff and contractors on the ecological importance of low-light conditions and protocols for vehicle headlights and temporary lighting. Noise Impacts • Installation of noise wall • Limit all high-noise construction activities (e.g., bulk earthworks, rock breaking, heavy vehicle use) to standard daytime hours (7 am–6 pm weekdays; 8 am–1 pm Saturdays) • Avoid abrupt or impulsive noise events near the riparian corridor (e.g., air-brake use, metal impacts) • Use non-tonal reversing alarms (e.g., “broadband squawkers”) on site vehicles • Turning off machinery when not in use • Maximising the offset distance between noisy plant items and sensitive receivers • Avoiding using noisy plant simultaneously and / or close together, adjacent to sensitive receivers • Using dampened tips on rock breakers • Using noise source controls, such as the use of residential class mufflers, to reduce noise from all plant and equipment including bulldozers, cranes, graders, excavators and trucks • Restrict night works to essential activities only; otherwise, maintain operations below 40 dBA at the habitat boundary • Turning off machinery when not in use • Maximising the offset distance between noisy plant items and sensitive receivers • Orienting equipment away from sensitive receivers • Carrying out loading and unloading away from sensitive receivers	

Matter	Mitigation Measure	Reference
	- Closing all warehouse roller shutter doors during the night period - Include fauna-related acoustic controls in the Construction Noise and Vibration Management Plan (CNVMP) and Operational Environmental Management Plan (OEMP)	
Air Quality	Dust mitigation - Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager. - Display the head or regional office contact information . - Develop and implement a Construction Air Quality Management Plan (CAQMP) which includes: - A TARP (Trigger Action Response Plan) - Details of the proposed monitoring program - Measures to control dust and, if required, other emissions (such as odour and combustion gases) <i>Site management</i> - Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner and record the measures taken. - Make complaints logs available to the local authority when requested. - Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the logbook. <i>Monitoring</i> - Undertake real-time monitoring and daily on-site and off-site inspections, where receptors are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. - Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked. - Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. <i>Preparing and maintaining the site</i>	Section 6.11 Appendix 17

Matter	Mitigation Measure	Reference
	- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. - Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site. - Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period. - Avoid site runoff of water or mud. - Keep site fencing, barriers and scaffolding clean using wet methods. - Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below. - Cover, seed, or fence stockpiles to prevent wind whipping where possible and when stored for extended periods. <i>Operating vehicle/machinery and sustainable travel</i> - Ensure all vehicles switch off engines when stationary - no idling vehicles. - Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable. - Impose and signpost a maximum speed-limit of 20 km/h on surfaced and 10 km/h on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker). - Ensure all vehicles switch off engines when stationary - no idling vehicles. - Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable. - Impose and signpost a maximum speed-limit of 20 km/h on surfaced and 10 km/h on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker). <i>Operations</i>	

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	• <i>Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.</i> • <i>Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.</i> • <i>Use enclosed chutes and conveyors, and covered skips.</i> • <i>Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and using fine water sprays on such equipment wherever appropriate.</i> • <i>Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.</i> Waste management • Avoid bonfires and burning of waste materials. Earthworks • Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable. • Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable. • Only remove the cover in small areas during work and not all at once. • During windy weather, large, unprotected areas will be kept moist (not wet) by sprinkling with water to keep dust under control. In the event water is not available in sufficient quantities, soil binders and/or dust retardants will be used or the surface will be left in a cloddy state that resists removal by wind. • Limiting the area of lands exposed to erosive forces through phasing works, provision of a protective ground cover including (mulches, vegetation, organic binders or dust retardants) keeping the ground surface damp (not wet), leaving the surface in a rough cloddy condition to increase roughness and slow surface wind speed.	

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	- If unexpected odorous materials are uncovered, works in the affected area will cease immediately. The exposed material will be covered to minimise emissions, and removed offsite immediately. If there is another occurrence, the same procedure should be followed in addition to engaging and a qualified environmental specialist to assess the source and extent of the odorous material. Appropriate controls—such as temporary capping, rapid removal, or modification of the excavation sequence—will be implemented before excavation resumes. Trackout - Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use. - Avoid dry sweeping of large areas. - Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport. - Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable. - Record all inspections of haul routes and any subsequent action in a site log book. - Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned. - Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable). - Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permit. - Access gates to be located at least 10 m from receptors where possible. Air quality and meteorological monitoring program - Conduct real-time continuous PM10 monitoring and monthly DDG sampling at locations representative of nearest sensitive receptors & prevailing wind directions. - Continuous meteorological data will be recorded from an on-site station including wind speed and wind direction as a minimum.	

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	- Undertake regular on-site inspections to check compliance with dust controls and maintain a log of results. Recommended Trigger Action Response Plan (TARP) - Implement the TARP provided in Table 24 of the Air Quality Impact Assessment at Appendix 17. Air quality management - Minimising vehicle idling times around the Site using best management practices, including: - Requiring vehicle engines to be turned off when loading/unloading; when drivers are on a break, or waiting to get administrative clearances, etc. - Installation of appropriate signage at relevant locations encouraging drivers to switch off engines when not in use. - Mobile heavy lift equipment and other vehicles operated on site are maintained and operated as per manufacturer specifications or best practice requirements. - Any spillages are cleaned up in a timely manner. - Sealed access roads and hardstand areas are maintained and the surface kept free of significant dust-generating materials.	
Noise and Vibration	Operational Mitigation - Construction of permanent noise barriers in accordance with the Noise Impact Assessment (NIA) Construction Noise Mitigation - Minimising the coinciding use of multiple noisy plant items; - Equipment which is used intermittently is to be shut down when not in use; - Equipment with directional noise emissions would be oriented away from sensitive receivers as much as practicable; - Regular compliance checks on the noise emissions of all plant and machinery used for the proposal would indicate whether noise emissions from plant items were higher than predicted. This also identifies defective silencing equipment on the items of plant;	Section 6.8 Appendix 15

Matter	Mitigation Measure	Reference
	- Non-tonal reversing alarms should be used on all items of plants and heavy vehicles used for construction; and - Goodman would undertake pre-construction community consultation with receivers R01, R03, R04, R05, R06 and R09 in order clearly and transparently explain the proposed works and the potential for construction noise impacts. Regular on-going updates would be provided throughout the works in order to understand and address as far as practicable any noise related concerns of the receivers.	
Ground Conditions	- Sediment basin design and construction in accordance with relevant guidelines (e.g. Blue Book), sized for the 5-day 85th percentile rainfall event and based on "Type D" soils, to maintain acceptable sediment concentrations in runoff. - Installation of sediment fences around the site perimeter to prevent untreated runoff from leaving the site. - Installation of sediment fences along existing drainage channels to minimise sediment migration into waterways and sediment basins. - Provision of a single stabilised site access point at the entry to the works area to minimise sediment tracking onto surrounding properties and roads. - Minimisation of the extent of disturbed areas at any one time during construction. - Progressive stabilisation of disturbed and completed earthworks areas following trimming. - Regular inspection and monitoring of erosion and sediment control measures, and implementation of remedial actions to maintain effectiveness.	Section 6.4 Appendix 10 Appendix 11
Water	Implementation of the stormwater management network as detailed in the Civil Report and Civil Plans prepared by Costin Roe.	Section 6.4 Appendix 10 Appendix 11
Flooding	Evacuation can be undertaken from the site as the internal roads are only inundated by low hazard flood waters and are trafficable in all storm events up to and including the PMF. If inhabitants are unable to evacuate, occupants of the site can remain within their respective buildings until such a time when evacuation is possible, as the proposed development is above the mainstream PMF extents	Section 6.5 Appendix 23

Matter	Mitigation Measure	Reference
Hazards and Risks	- The DGs shall be stored and handled in a manner which complies with the applicable storage standards. - The documentation required by the Work Health and Safety (WHS) Regulation shall be prepared to demonstrate the risks have been assessed and minimised So Far As Is Reasonably Practicable (SFAIRP) as required by the WHS Regulations. - Where flammable gases or liquids are stored, a hazardous area classification in accordance with AS/NZS 60079.10.1 shall be prepared to ensure that an ignition source does not enter a hazardous atmosphere as required by the WHS Regulations. - Should the quantities of DGs proposed to be stored exceed those described here, the storage shall be reassessed against SEPP-RH.	Section 6.16 Appendix 18
Contamination	- Implementation of the Site Management Plan detailed in the Remediation Action Plan prepared by JBS&G - Ongoing implementation of the finalised Long Term Environmental Management Plan for on-site containment cells	Section 6.6 Appendix 13a Appendix 13b Appendix 13c
Waste	Management of waste is to be undertaken in accordance with the Waste Management Plan prepared by SLR Consulting.	Section 6.12 Appendix 28
Aboriginal Cultural Heritage	- If changes are made to the proposal that may result in impacts to OEAS which have not been assessed by the ACHAR, further investigation in the form of test excavation will occur - Unexpected Aboriginal objects remains protected by the National Parks Wildlife 1974. If any such objects, or potential objects are uncovered in the course of the activity, all work in the vicinity will cease immediately. A qualified archaeologist will be contacted to assess the findings and Heritage NSW and Deerubbin LALC will be notified - If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity will cease, the site will be secured, and the NSW Police and Heritage NSW will be notified.	Section 6.17.1 Appendix 12a Appendix 12b
Bushfire Risk	The proposed APZ is to be maintained in accordance with Planning for Bush Fire Protection 2019 (PBP 2019) and the NSW RFS document Standards for Asset Protection Zones.	Section 6.10 Appendix 19

Matter	Mitigation Measure	Reference
	- All proposed roads must comply with section 5.3.2 of PBP 2019 as appropriate. - Firefighting water supply and hydrant coverage are to be provided in accordance with AS 2419, the NCC, fire engineering requirements, civil/services documentation and the relevant provisions of PBP 2019. - The proposed warehouses are to comply with the National Construction Code, AS 3959-2018 Construction of buildings in bushfire-prone areas and/or the NASH Standard, and Section 7.5 of PBP 2019 to the extent shown in Figure 7 in the Bushfire Hazard Assessment.	
Social and Economic Impact	Stakeholder communication - Goodman should continue to use the established OEIE communication framework to provide timely, accurate and accessible information to stakeholders. - Communications should explain the Project scope, planning pathway, construction activities, operational characteristics, likely timing and mechanisms for raising enquiries or complaints. - Notifications should be issued as per the OEIE Community Consultation and Complaints Handling Strategy ahead of potentially disruptive activities, including major earthworks, haulage changes, out-of-hours activities where relevant and changes to access or traffic conditions. Complaints and enquiries management - Implementation of the updated Community Consultation and Complaints Handling Strategy prepared by SLR Consulting - Complaints should be recorded, investigated and responded to in a timely manner. - Where complaints relate to dust, noise, traffic or lighting, responses should be linked to relevant monitoring data or site inspections where available. Construction traffic and haulage - Preparation and implementation of a Construction Traffic Management Plan (CTMP), designated haulage routes, traffic controls, stakeholder notifications and coordination of vehicle movements where practicable. - Given the scale of the fill importation program, traffic and haulage communication should be prioritised as a key stakeholder management issue.	Appendix 20a Appendix 20b

Matter	Mitigation Measure	Reference
	Dust and air quality - Dust and air quality should be managed in accordance with the Air Quality Impact Assessment and future Construction Air Quality Management Plan. - Measures should include dust suppression, stabilisation of exposed areas, wheel wash or track out controls, real-time monitoring, trigger levels and adaptive management responses. - Dust-related communications should be clear and transparent, particularly where visible dust, property impacts or health concerns arise. Noise, lighting and amenity - Construction and operational noise, lighting and amenity impacts should be managed through the relevant technical mitigation measures. - Stakeholders should be informed about construction hours, operational controls, lighting design and complaint pathways. Cumulative industrial development - Transparent communication regarding project scope and timing. - Integration with existing OEE engagement processes and cumulative impact assessment within the EIS framework.	
Fire Safety	- Perimeter access with pathways and access points generally in accordance with FRNSW Fire Safety Guideline 'Access for fire brigade vehicles and firefighters' - Automatic Fail-Safe in accordance with Part D3 of the NCC i.e. D3D24 - Hydrants with infrastructure generally designed and installed in accordance with AS 2419.1:2021 and subject to the Performance Solution - Where hydrants are located beneath awnings or similar obstructions to achieve compliant coverage, fallback hydrants are likely to be required as a separate design measure. - Associated wayfinding information, including block plans and directional signage where required, should be provided to clearly identify the preferred hydrant locations and support effective fire brigade intervention. - The following facilities are to be designed and installed in accordance with relevant Australian Standards and subject to the Performance Solution:	Appendix 27a Appendix 27b

Matter	Mitigation Measure	Reference
	○ Fire hose reels with infrastructure in accordance with AS 2444:2001) ○ Sprinklers with fast response heads in accordance with AS 2118.1:2017 ○ Portable fire extinguishers in accordance with AS 2444:2001 ○ Smoke detection and occupant warning (monitored system) in accordance with AS 1670.1:2018 ○ Mechanical air handling (smoke exhaust) in accordance with AS 1668.1:2015 ○ Emergency lighting and exit signage in accordance with AS/NZS 2293.1:2018 • Emergency Management and Procedures, to be developed and confirmed through the Performance Solution.	