

Appendix B

Updated Consolidated Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed below. These measures have been derived from the assessment in Sections 7.0 through 24.0 of the EIS, those detailed in appended consultants' reports, and updated assessment and consultant reports appended to the Submissions Report.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
Construction Management			
CM-1	Construction Management	Construction	For each stage of the development, a stage-specific Construction Management Plan (CMP) will be prepared in accordance with the Preliminary CMP.
Traffic, Transport and Accessibility			
TTA-1	Traffic impacts associated with Huntlee Stage 2 Phase 1 cumulative development up to 5,000 dwellings and 20ha of mixed use/commercial GFA	Operation	<ul style="list-style-type: none"> Upgrade the Wine Country Drive / Bridge Street / Tollbar Avenue roundabout (A-1) with new traffic signals prior to 5,000 residential dwellings and 20ha GFA of mixed use / commercial development across both Stage 1 and 2. Upgrade HEx Branxton Interchange (A-11) prior to 5,000 residential dwellings and 20ha GFA of mixed use / commercial development across Stage 1 and 2, including: <ul style="list-style-type: none"> A new continuous left turn slip lane/ramp from HEx Link Road to the northbound on-ramp Additional right turn lane from HEx Link Road to the southbound on-ramp Widening of the roundabout circulating lanes to accommodate double right turn lanes from HEx Link Road to the southbound on-ramp Additional exit lane (short lane) on the southbound on-ramp
TTA-2	Traffic impacts from remaining Concept Areas up to 7,500 dwellings and 28.7ha of mixed use/commercial GFA	Operation	<p>Undertake new traffic assessments of for future detailed DAs including:</p> <ul style="list-style-type: none"> Undertaking new counts after development achieved 5,000 residential dwellings and 20ha GFA of mixed use / commercial target. Reviewing background traffic growth. Reviewing the development uptake rate particularly for commercial / mixed use GFA.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
TTA-3	Construction traffic impacts	Construction	Prepare and implement a Traffic Management Plan (TMP) as part of each stage-specific Construction Environmental Management Plan (CEMP) that is consistent with the recommended mitigation measures set out in Section 7.1 of the TIA (Appendix M).
TTA-4	Promoting sustainable transport	Operation	<ul style="list-style-type: none"> • Implement the Green Transport Plan. • Engage with the Huntlee community as it continues to grow and implement and continuously refine an active transport plan as part of the overall Huntlee community strategy, building on the core strategies outlined in this report. • Engage with local bus companies to expand the number and type of services available to residents, such as a connection to Cessnock and express services to Maitland and Singleton. • Engage with Singleton/Cessnock Councils and other interested parties to push for additional passenger rail services to Branxton Station and investigate a potential direct link to Branxton Train Station. • Ensure sufficient bicycle parking is provided at key public areas within the Town Centre (Huntlee Stage 1 area) to accommodate the additional demand from Stage 2 residential areas.
Biodiversity			
B-1	Impacts to <i>Pterostylis chaetophora</i> and <i>Persoonia pauciflora</i>	Construction	Prior to clearing for construction, the Developer will work with NSW Save Our Species representatives to coordinate the salvage of <i>Pterostylis chaetophora</i> and <i>Persoonia pauciflora</i> propagative material or individuals from plants located within the development lands under the supervision of Huntlee representatives.
B-2	Impacts to <i>Pterostylis chaetophora</i>	Construction	Prior to clearing of any land in the 12 months following each <i>Pterostylis chaetophora</i> flowering season, a targeted seasonal survey across this land will be completed to assist salvage and translocation efforts. The results and locations would be shared with NSW DCCEEW officers and access, if required, facilitated for salvage. This mitigation measure does not preclude any development or clearing of land where <i>Pterostylis chaetophora</i> is found.
B-3	Revegetation of Central Hunter Riparian Forest	Construction	Prepare a Vegetation Management Plan for the rehabilitation of existing CHRF patches and CHRF revegetation, and implement the Vegetation Management Plan by a suitably qualified restoration contractor.
Contamination			
SW-1	Minimally Disturbed Areas	Construction	<ul style="list-style-type: none"> • Removal of all waste, car wrecks, and general refuse prior to commencement of earthworks of civil construction. • Inspect of soil materials within soil stockpiles or mounds, with appropriate sampling and assessment of the materials for reuse or offsite disposal in accordance with the relevant NSW EPA guidelines, should the material vary from the immediate area. • Implement of an unexpected finds protocol, to stop works and allow for assessment for any suspected contaminated materials (e.g. odours / staining) or potential asbestos containing materials within waste piles not previously assessed.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
SW-2	Heavily Disturbed Areas	Construction	<ul style="list-style-type: none"> Remove and reuse/recycle the metal rails / fittings and timber sleepers (if appropriate). Assess ballast materials where removal or reuse is proposed, in accordance with sampling and testing requirements of the recovered railway ballast order (2014). Assess fill embankment materials for contamination prior to earthworks, in accordance with NSW EPA guidelines Implement an unexpected finds protocol, to stop works and allow for assessment for any suspected contaminated materials (e.g. odours / staining).
SW-3	Former Ayrfield No. 3 Colliery and Quarry	Construction	<ul style="list-style-type: none"> As part of the Village 3 detailed DA application, prepare a RAP with a robust remediation methodology that includes the following remedial actions: <ul style="list-style-type: none"> Undertake remedial works within areas exhibiting contamination concentrations in the excess of 250% of the adopted Site Criteria. Excavate and consolidate contaminant exceedances and fill within an engineered design containment cell. Validate sampling of the excavated footprint of hotspots. Develop an Unexpected Finds Protocol. Undertake housekeeping including removal of all anthropogenic materials for offsite disposal.
Aboriginal Cultural Heritage			
ACH-1	Demolition and Construction Waste Reduction	Construction	<p>The Proponent will continue to consult with the RAPs in regard to the Project in accordance with the <i>Aboriginal cultural heritage consultation requirements for proponents 2010</i>. Consultation will include, but is not limited to:</p> <ul style="list-style-type: none"> Finalisation of ACHA Long-term storage of any cultural material Unexpected finds <p>Project updates will be sent to all RAPs every 6 months at a minimum to ensure the consultation associated with this ACHA remains active.</p>
ACH-2	Aboriginal Heritage	Construction	<ul style="list-style-type: none"> The current Huntlee Aboriginal Cultural Heritage Management Plan (ACHMP;2019) encompasses the Subject Area and AHIMS ID#37-6-2029, #37-6-2030, #37-6-2031 and #37-6-2032. The management plan will need to be updated as per the results of this ACHA to ensure the adequate management of the AHIMS sites. A Care and Control Agreement will be required with the Registered Aboriginal Parties to determine the keeping place of Aboriginal sites identified within the Subject Area.
ACH-3	Aboriginal Heritage	Construction	<p>The current Huntlee ACHMP 2019 should be updated to be in line with current standards and guidelines with regards to the management of Aboriginal cultural heritage. This should include the incorporation of a section in the ACHMP which outlines the nature, extent and status of Aboriginal sites and any approved management requirements which would help to ensure the effective and appropriate management of Aboriginal cultural heritage within the project area.</p>

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
ACH-4	General	Construction	All workers and contractors associated with the residential subdivision and future development of the Subject Area will be inducted, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and the conditions of the ACHMP (2019) prior to, during and after construction works.
ACH-5	General	Construction	Site cards and registrations on the AHIMS will be undertaken for the 23 newly identified sites. Aboriginal Site Impact Recording Forms (ASIRF) will need to be submitted when required.
ACH-6	General	Construction	Site cards for ONR1 (AHIMS ID#37-6-1702) will require an update to its coordinates.
ACH-7	General	Construction	<p>In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:</p> <ul style="list-style-type: none"> • The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm. • The NSW Police must be contacted immediately. • No further action is to be undertaken until the NSW Police provide written notification. • If the skeletal remains are identified as Aboriginal, the Proponent or their agent must contact: <ul style="list-style-type: none"> - the Heritage NSW's Enviroline on 131 555 and representatives of the RAPs. - No works are to continue until Heritage NSW provides written notification.
ACH-8	General	Construction	The Proponent will not publicise the location of Aboriginal cultural heritage sites or other cultural information without prior consent from the Aboriginal community. This includes the public distribution of any mapping, AHIMS data and/or cultural information contained within this report.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
Environmental Heritage			
EH-1	Village 2 Central and South	Construction	Prior to works progressing in this locality, further investigation is required at the potential location of Bentham Farm (AAS 5) to ascertain if archaeological material is present. If during that process items are identified meeting the definition of a “relic” under the NSW Heritage Act 1977 a permit must be lodged and approved prior to works re-commencing in that location.
EH-2	Village 3 and the Ayrfield Colliery	Construction	<ul style="list-style-type: none"> • The Heritage Assessment concludes that elements of the Former Ayrfield No. 3 (Rothbury) Colliery are of State heritage significance. Therefore, part of the area containing these elements should be designated as a Heritage Conservation Area for listing on the State Heritage Register through the process outlined in Section 7.5.1 (see Huntlee heritage assessment report). This area and items within it will be finalised based on outcomes of the Conservation Management Plan and Heritage Interpretation Plan developed as part of the detailed DA for Village 3. • As part of the detailed DA for Village 3, a Conservation Management Plan (CMP) must be developed for the Former Ayrfield No. 3 (Rothbury) Colliery, this will ensure the proposed project will progress in a timely manner and the heritage values of the site are maintained. • As part of the detailed DA for Village 3, a Heritage Interpretation Plan must be developed to inform the proposed development of open space and recreation facilities at the Former Ayrfield No. 3 (Rothbury) Colliery site. • A heritage specialist(s) should be engaged to work with the design team. Informing the detailed design of the proposed heritage park and adjacent open landscaped areas, the intent is to ensure the heritage values of the former colliery and its key heritage elements are appropriately conserved and interpreted in the design of the proposed heritage park. • Prior to ground disturbance works commencing, a Metal Detector Survey using a VLF (Very Low Frequency) metal detector should be used to determine the nature of archaeological material present in AAS2-4. • Prior to demolition of AAS 3 (Mine Office) and before removal of floor levels and voids, brick piers, slabs or garden paths, a thorough archaeological assessment should be conducted by a qualified archaeologist. That process will incorporate photographic archival recording and if warranted, an excavation be conducted in accordance with requirements under the <i>NSW Heritage Act 1977</i> to determine the nature, type and extent of archaeological material present. Note: Addendum on the status of the Mine Office.
EH-3	General	Construction	<ul style="list-style-type: none"> • Those heritage items identified as exceptional or high heritage value (Appendix A Table E of the Heritage Assessment) must be subject to archival photography to NSW Heritage standard prior to removal. • The marble slab identified in <i>Redundant equipment and items</i> (pg.12). Prior to works progressing in this locality, further investigation as detailed in that section is required to determine if the slab has significance. • In the event any heritage finds are identified, works must cease temporarily in that location, and the ‘Unexpected Finds Procedure’ described in Appendix C enacted. • A heritage induction should be instigated for all contractors and sub-contractors explaining the significance of the place and statutory obligations for cultural heritage under the <i>Heritage Act 1977</i>. • All locations where built heritage items or archaeological potential is identified in, or adjacent to works, that area should be temporarily demarcated using bollards and flagging tape until construction work is completed.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
EH-4	General	Construction	Immediate measures should be taken to provide temporary protection to key elements of the Ayrfield No. 3 (Rothbury) Colliery site from damage. Structures of exceptional and high significance should be protected from vandalism and unauthorised entry as applicable including the Chimney Stack, Mine Office, Electrician's Workshop, Lamp Store and Explosives-magazine. This will ensure structures of heritage significance are protected from damage/ destruction.
EH-5	General	Construction	No structures or elements should be demolished or removed from the Ayrfield No. 3 (Rothbury) Colliery site, including the Mine Office and Houses 1 to 4, without development approval. A separate development application should be submitted for any works proposed to be undertaken that would impact on any structures or elements related to the Ayrfield No. 3 (Rothbury) Colliery site other than for the provision of temporary protection. This will protect structures and elements that are of heritage significance from damage/ destruction.
Bushfire and Safety			
BS-1	Asset Protection Zone	Construction	An APZ will be established in accordance with the Bushfire Threat Assessment.
BS-2	Bushfire Attack Level	Operation	All future residential development will comply with the relevant site and development-specific BAL.
BS-3	Ongoing Fuel Management	Operation	Undertake an ongoing fuel management and maintenance regime that complies with the NSW RFS 'Asset protection zone standards' and <i>Appendix 4 - Asset Protection Zone Requirements of PBP (2019)</i> .
Stormwater Management			
SM-1	Soil Erosion	Construction	Exposed soils will be ameliorated via application of gypsum at a nominal rate of 2 kg/m ² . The nominal gypsum application rate of 2 kg/m ² will be validated following preliminary excavations and dosing.
SM-2	Soil Erosion	Construction	Additional treatment and/or protection of erosion prone soils, preventive erosion and sedimentation control measures will be nominated during the design stage and implemented throughout construction to the development. Control measures will be suitable for the prevailing site conditions, and in accordance with the guidelines set out within the 'Blue Book' <i>Managing Urban Stormwater: Soils and Construction</i> (Landcom, 2004)
SM-3	Acid Sulphate Soils	Construction	Limited laboratory testing for ASS will be conducted during geotechnical investigations at the civil design stage to verify conditions, particularly in lower lying site areas or drainage lines where local Acid Sulphate Soils could occur.
SM-4	Soil Salinity	Construction	Monitor for visual signs of soil salinity during construction.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
SM-5	Stormwater Basin Infrastructure – Embankment Foundation Treatment	Construction	<p>Undertake the following general foundation preparation for proposed embankments:</p> <ul style="list-style-type: none"> • Removal of topsoil, colluvium, and weak / compressible soils. • Static proof-rolling of the exposed foundation area under the embankment with a heavy (minimum 10 tonne) roller. Soft or weak areas detected during the proof rolling shall be excavated and replaced with compacted fill comprising low permeability clay meeting the requirements of Zone 1 material. • Protection of the prepared foundation to prevent excessive wetting or drying prior to placement of embankment fill material. Trafficking of the exposed foundation should be limited (or avoided where possible) to prevent permanent deformation. • Embankment clay core to have a minimum 500 mm key into the underlying natural profile. • Inspection by an experienced geotechnical consultant shall be conducted to confirm foundation suitability.
SM-6	Stormwater Basin Infrastructure – Piping	Construction	Install seepage collars along stormwater pipes traversing the proposed basin embankments.
SM-7	Stormwater Basin Infrastructure – Surface Erosion Control	Construction	Topsoil will be spread over the exposed surfaces of the embankment to a depth of at least 150mm and sown with pasture grass.
SM-8	Stormwater Basin Infrastructure – Surface Erosion Control	Construction	Apply gypsum treatment for any surface area of exposed clay material within the basin walls and impoundment area, and any clay core. Subject to inspection, this may not be necessary where turf is placed within the impoundment area.
SM-9	Stormwater Basin Infrastructure – Surface Erosion Control	Construction	All trees and shrubs will be restricted to a preferred minimum distance of 1.5 times the height of the tree away from the embankment of any basin. A reduced distance of 5m from the toe of the embankment could be considered if the tree roots are not allowed to establish within the clay core of the embankment.
SM-10	Stormwater Basin Infrastructure – Erosion of Batter Faces	Construction	Install upstream batters graded at 5H:1V or flatter, with diversion drains or bunds to divert any surface flows towards the specified inlet discharge points.
SM-11	Mine Acid Drainage	Construction	Apply lime to existing coarse CWR materials prior to reuse during the removal and reworking operation within Village 3 (being the relevant area).
Geotechnical			
G-1	Soil Reactivity	Construction	<ul style="list-style-type: none"> • Suitably control any reactive site soils during construction. • Remove of vegetation, uncontrolled filling (and reworking if suitable) and deleterious materials, where necessary.
G-2	Slope Stability	Construction	Implement the recommended slope stability controls outlined in Table 7-7 of the Geotechnical Report.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
Mine Subsidence			
MS-1	Subsidence restrictions for certain areas only (Village 3)	Construction	<ul style="list-style-type: none"> Road pavements constructed of flexible Asphalt Concrete (AC). Stormwater pipes laid on minimum longitudinal grades 0.5% steeper than current Council minimum requirements to offset minor ground tilts i.e. 1% + 0.5% = 1.5% minimum grade. Concrete kerbs to have crack control joints at 3m centres and full isolation joints at 6m centres to ensure only minimum length of kerb would need to be replaced in a subsidence event. Sewer pressure pipes to be bedded in sand and be constructed from fully welded HDPE or similar. Water pressure pipes (potable and recycled water) to be bedded in sand backfill and constructed from maximum 6m lengths of UPVC and rubber ring joints to minimise the impact of ground strains.
MS-2	Further Investigation	Operation	<p>Significant investigation will be required at an appropriate stage of approval and development within the affected areas of Stage 2 (Village 3, the extension of the Town Centre, and the Old North Road site). Further investigation will include:</p> <ul style="list-style-type: none"> Detailed site mapping in parallel with survey to locate and identify all mine features (shafts, tunnels, subsidence features etc) and improve accuracy of the mine overlay plans. Boreholes at the site to assess the findings of this desktop assessment. In particular the conduct of multiple series of boreholes across the seam strike are recommended to: <ul style="list-style-type: none"> Assess depth of cover zones defined on Drawings in Appendix J; Check seam thickness; Check for evidence of voids and/or pillar crushing/seam closure; Numerical modelling to provide subsidence design estimates across the areas of Stage 2 affected by mining.
Noise and Vibration			
NV-1	Project planning	Construction	<ul style="list-style-type: none"> Where possible, consider the application of alternative, low-impact construction techniques to rock breaking. Power tools using mains power rather than by using generators. Use the minimum sized equipment necessary to complete the work, this is particularly relevant to compacting and hydraulic hammering / rock breaking.
NV-2	Scheduling	Construction	<ul style="list-style-type: none"> Carry out community consultation and provide advanced warning of potential disruptions to sensitive receivers. Deliveries are to occur during Standard Construction Hours only.
NV-3	Site layout	Construction	<ul style="list-style-type: none"> Site entry and exit points will be located as far as possible from sensitive receivers, taking into account the importance of safe access. Compounds, refuelling areas and work areas will be designed to promote one-way traffic so that vehicle reversing movements are minimised. Work compounds, parking areas, equipment and material stockpile sites will be positioned away from noise-sensitive locations Trucks will be carefully scheduled and not queue up outside residential properties.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
NV-4	Training	Construction	<ul style="list-style-type: none"> • Training will be provided to all project personnel, including relevant sub-contractors on noise requirements through inductions, toolboxes and targeted awareness training. • All relevant staff and sub-contractors will be informed of areas and work practises where potential noise impacts have been identified. • Horn signals between drivers are not permitted.
NV-5	Contractor management	Construction	<ul style="list-style-type: none"> • Delivery vehicles should be fitted with straps rather than chains for unloading, wherever possible. • Truck drivers should avoid compression braking as far as practicable and should use main roads where feasible.
NV-6	Noise source mitigation and controlling the transmission of noise	Construction	<ul style="list-style-type: none"> • Switch off generators/items of plant when not in use. • Avoid dropping materials from a height. • Shut down or throttle down machinery when not in operation. • Avoid simultaneous operation of noisy plant within discernible range of a sensitive receiver • Ensure equipment is operated in the correct manner including replacement of engine covers, repair of defective silencing equipment, tightening of rattling components, repair of leakages in compressed air lines and shutting down equipment not in use. • Siting noisy equipment behind structures that act as barriers, or at the greatest distance from the noise-sensitive area; or orienting the equipment so that noise emissions are directed away from any sensitive areas, to achieve the maximum attenuation of noise • Plant will be fitted with noise control devices, where practicable, including acoustic lining of engine bays and air intake / discharge silencers • Ensure that all doors/Hatch Roberts Dayes are shut during operation of plant and equipment. • Check Hatch Roberts Dayes/enclosures regularly to ensure that seals are in good working order and doors close properly against seals. • Use residential-grade mufflers on plant. • Use dampened bits on impulsive tools such as jackhammers to avoid 'ringing' noise. • An acoustic shroud (skirt) can be installed on hydraulic rock breakers and concrete saws. • Ensure truck movements are kept to a minimum, i.e. that trucks are fully loaded on each trip. • Mobile plant and trucks operating on site for a significant portion of the project will have reversing alarm noise emissions minimised, where possible, recognising the need to maintain occupational safety standards. This may potentially be achieved through restrictions on reversing activities or installation of non-tonal reversing alarms on mobile plant and equipment. • Stationary noise sources should be enclosed or shielded where feasible and reasonable whilst ensuring that the occupational health and safety of workers is maintained. Appendix D of AS 2436:2010 lists materials suitable for shielding.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
NV-7	Community consultation	Construction	<ul style="list-style-type: none"> • Provide at least five and not more than 14 days' notice to affected receivers prior to starting works. • Provide signage detailing who is undertaking the works and a contact number. • Where there are complaints about noise from an identified work activity, review and implement, where feasible and reasonable, additional control measures.
NV-8	Monitoring	Construction	<ul style="list-style-type: none"> • Conduct noise monitoring in response to any complaints received to verify that levels do not substantially exceed predicted levels. • Initial noise monitoring of plant and equipment will be undertaken to ensure the noise levels are being met.
NV-9	Traffic noise and vibration – residential dwelling, design and construction in areas near to noise generating sources (Village 2 North)	Operation	<p>At dwelling design stages, consider the following noise mitigation items as part of future dwelling construction, subject to a noise assessment as part of a detailed application for Village 2 North:</p> <ul style="list-style-type: none"> • Setbacks on allotments of front facades to maximise distance from the Hunter Valley Rail Corridor and Hunter Expressway and minimise windows in facades fronting these areas • Consider locating non-noise sensitive rooms on the side of the dwelling fronting these areas • Use construction techniques focusing on sealing gaps around intrusions • Use acoustically rated glass where required, and solid core doors with effective door seals
Waste Management			
WM-1	Stakeholder Roles and Responsibilities	Construction	<ul style="list-style-type: none"> • The Construction Contractor will be responsible for implementing the Waste Management Plan; • Site staff have responsibility to ensure their own compliance to waste management roles and responsibilities; • Where possible, an Environmental Management Representative (EMR) will be appointed for the project to ensure waste management compliance.
WM-2	Monitoring and Reporting	Construction	<ul style="list-style-type: none"> • Compare projected waste quantities with actual waste quantities produced; • Conduct waste audits of current projects (where feasible); • Note waste generated and disposal methods; • Look at past waste disposal receipts; • Record this information to help in waste estimations for future waste management plans.
WM-3	Reuse and Recycling	Construction	<ul style="list-style-type: none"> • Facilitate, where practical, reuse and recycling by 'deconstruction'. Any unwanted reusable materials can be taken to a second-hand building centre, reducing waste disposal costs; • Avoid individually wrapped materials where possible, with preference given for materials that can be delivered in returnable packaging such as timber pallets. • Construction and demolition materials removed from site will need to be managed in accordance with the provisions of current legislation and may include segregation by material type classification in accordance with NSW EPA <i>Waste Classification Guidelines, Part 1: Classifying Waste</i> and disposal at facilities appropriately licensed to receive the particular materials.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
WM-4	Management of Hazardous Waste Materials	Construction	<ul style="list-style-type: none"> Contaminated material stockpiled on site will be minimised as far as possible and should be stored on HDPE liner, in a bunded location which is protected from inclement weather; Sediment fences should be installed around the base of stockpiles and the stockpiles should be covered. Where excavated material requires validations, samples should be taken for NATA laboratory testing as per the requirements of the contamination assessment prior to restoration works, backfilling exercises and disposal; Any trucks carrying contaminated materials should be securely and completely covered immediately after loading the materials (to prevent windblown emissions and spillage) and must be licensed by the NSW Environmental Protection Authority (EPA); <ul style="list-style-type: none"> Decontamination of all equipment prior to demobilisation from the site is important so that contaminated materials are not spread off-site.
WM-5	Management of Excavation Waste	Construction	<ul style="list-style-type: none"> Wherever practical, excavation material will be reused as part of the development; Excavation material that is not natural (virgin) material will be transported to an approved landfill site or off-site recycling depot; A waste classification assessment of the fill material should be undertaken prior to it being acceptable for waste disposal purposes; <p>Transportation routes for excavation material removed from site will be identified and used.</p>
WM-6	Demolition Waste Volumes and Management	Construction	A demolition contractor will be engaged during and be responsible for ensuring all demolition activities are planned and undertaken in accordance with relevant waste minimisation policies and DA requirements.
WM-7	Construction Waste Volumes and Management	Construction	Waste generated during the construction stage of the development will be managed by the principal contractor and sub-contractors, with materials being reused and recycled wherever possible. Where neither reuse nor recycling are possible, waste will be disposed of as general waste at a licensed landfill site.
WM-8	Training/Site Inductions	Operation	<ul style="list-style-type: none"> All staff employed during demolition and construction stages must undertake site-specific induction training regarding the procedures of waste management; Employees of the head contractor will undertake a specific induction outlining their duties and how they are to enforce the waste management procedures; Induction training will include the following procedures at a minimum: <ul style="list-style-type: none"> Legal obligations; Emergency response procedures on site; Waste storage locations and separation of waste; Litter management in transit and on site; The implications of poor waste management practices; Correct use of general-purpose spill kits; Responsibility and reporting (including identification of personnel responsible for waste management and individual responsibilities).

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
WM-9	Materials Selection and Ordering	Operation	<ul style="list-style-type: none"> • Selection of all materials will be undertaken by architectural designers; • Prefabrication of materials off-site where possible; • Materials requirements are to be accurately calculated to minimise waste from over-ordering; • Materials ordering process is to aim at minimisation of materials packaging; • Material Safety Data Sheets (MSDS) are to accompany all materials delivered to site, where required, to ensure that safe handling and storage procedures are implemented.
WM-10	Waste Avoidance Opportunities	Operation	<ul style="list-style-type: none"> • Limiting unnecessary excavation; • Selection of construction materials taking into consideration to their long lifespan and potential for reuse; • Ordering materials to size and ordering pre-cut and prefabricated materials; • Reuse of formwork; • Planned work staging; • Reducing packaging waste on-site by returning packaging to suppliers where possible, purchasing in bulk and requesting cardboard or metal drums rather than plastics; • Requesting metal straps rather than shrink wrap and using returnable packaging such as pallets and reels; • Reduction of PVC use; • Use of building materials with consideration to their longevity, adaptation, disassembly, reuse and recycling potential.
WM-11	Site Procedures	Operation	<ul style="list-style-type: none"> • Excavated materials will be used onsite where practical; • Green waste will be mulched and reused in landscaping either onsite or offsite; • Metal will be recycled offsite; all other metals will be recycled where economically viable; • All used crates will be stored for reuse unless damaged; • All glass that can be economically recycling will be; • All solid waste timber, concrete, rock and other materials that cannot be reused or recycled will be taken to an appropriate facility for treatment to recover further resources or for disposal to landfill in an approved manner; • All asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with WorkCover Authority and EPA requirements; • Provision for the collection of batteries, fluorescent tubes, smoke detectors and other recyclable resources will be provided on site; • Beverage container recycling will be provided on-site for employee use; • All waste and recycling will be disposed of via council approved systems.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
Social Impact			
SI-1	Community and infrastructure needs	Construction and Operation	<ul style="list-style-type: none"> Recommendations identified in the Community Infrastructure Needs Analysis will be implemented to ensure timely delivery of social infrastructure and services based on community demand. A Community Development Strategy will be prepared to outline a calendar of events and activations which will encourage new residents to meet each other and form new connections.
SI-2	Construction noise and vibration	Construction	<ul style="list-style-type: none"> Affected community members will be notified prior to periods of expected disruption from construction-related noise. This will allow them time to make alternative preparations or arrangements. Noise and vibration monitoring to be carried out at regular intervals during construction, in response to complaints, and when significant new plant and equipment arrive on site – as per Construction Noise and Vibration Assessment (Appendix Y).
SI-3	Consultation	Operation	<ul style="list-style-type: none"> Consult with Cessnock and Singleton Councils about affordable housing needs in the region, and if Huntlee can contribute to supply. Consult with affected community members, local and regional bus companies, emergency services, property owners and occupiers, and local Council in relation to expected road network impacts. Huntlee will continue to implement their 'Community Plan' and engage their in-house Community Manager to facilitate opportunities for social connection and network building. During Stage 1, this included grants to establish new community groups, a local resident Tool Share Shed, and Meet Your Neighbour events.
SI-4	Economy	Construction	<ul style="list-style-type: none"> Prioritise local procurement of construction workers, contractors, and other services during construction to support the local economy.
SI-5	Heritage	Construction	<ul style="list-style-type: none"> Continue to consult with RAPs and provide them with project updates every 6 months as per ACHA report recommendations (Appendix P). Creation of site cards and registration of 23 newly identified sites on AHIMS to be carried out, as per ACHA report recommendations. Unexpected finds procedure to be employed during construction, as per ACHA report recommendations. Huntlee will prepare a Conservation Management Plan and designate a Heritage Conservation Area for elements of the Former Ayrfield No. 3 (Rothbury) Colliery, as per Historic Heritage Assessment (Appendix Q).
SI-6	Staging	Construction	<ul style="list-style-type: none"> Staging of social infrastructure will be reviewed so that it is delivered in a way which keeps pace with population growth on site.
SI-7	Traffic, transport and accessibility	Construction and Operation	<ul style="list-style-type: none"> The Green Travel Plan (Appendix HH) will be adopted to support active transport and healthy lifestyle amongst residents in Huntlee New Town. The potential for direct connection to Branxton, as suggested in the Green Travel Plan, will be further investigated through public transport or pedestrian link to provide opportunities for social connection between existing residents in Branxton and the new community in Huntlee New Town and mitigate any social tension that may arise as the area undergoes transformative changes.

Ref No.	Impact / Issue	Stage of Project	Mitigation Measure
			<ul style="list-style-type: none">Upgrades to Wine Country Drive and Hex Link Road will be undertaken prior to the completion of 5,000 dwellings as per Traffic and Transport Impact Assessment (Appendix M).
