

DA Reference 8/2016 – Construction of a new blast wall at Bayswater Power Station (MSC)		
Outcome	Commitment	Status
N/a	No Statement of commitments was provided due to the minor nature of the development.	n/a
DA Reference 74/2018 – Construction of office and car park ancillary to security at Bayswater Power Station (MSC)		
Outcome	Commitment	Status
Drainage	The demountable site office will connect to the existing stormwater network on the site once constructed.	Complete
	The increase in impermeable area will be minimal.	Complete
	No further investigations of the drainage control/ management on the site are required.	Complete
Land remediation	No land remediation is proposed or required.	n/a
Landscaping	No land remediation is proposed.	n/a
Access	Access arrangements will not be altered.	n/a
Servicing	There will be no changes or additions to the sites servicing infrastructure.	n/a
Bushfire	The proposed development is not a category which requires a bushfire safety authority under section 100B of the Rural Fires Act 1997 and therefore it is not considered necessary to prepare any further report or justification, at this time.	n/a
Construction Staging	No staging is proposed to occur from this development.	n/a

Waste management:	The proposed activity will generate some general waste as part of the vegetation removal and construction works: <ul style="list-style-type: none"> • An existing bus shelter will be removed to allow the installation of the demountable site office. • Construction waste may include off cuts or other general refuse. Where possible, materials will be salvaged for recycling and reuse. • The remaining waste will be transported to a recognised waste facility. 	Complete
	Given the scale of the activity, waste disposal will be minimal and there is sufficient capacity in the road network to cater for the limited number of waste disposal vehicles required to remove waste and necessary vegetation. The construction contractor should discuss the potential for recycling waste where appropriate with a waste management centre.	Complete
	All disposed material will be done so in accordance to Council's regulations and recommendations to a relevant waste management facility. The construction contractor will prepare a waste management plan prior to the commencement of works. Specific details will be provided at the Construction Certificate stage of the development.	Complete
Advertising Signage	No signage is proposed or required for this development, other than relevant safety signage.	n/a
DA Reference 8.2018.273.1 – Feed water pipeline, water reticulation system and relocation of water pipeline (SC)		
Outcome	Commitment	Status
Ecology Construction Operation	As this proposal is within an already modified environment, it is unlikely to result in significant adverse impacts on the quality of habitats in the broader locality through spread of weeds, fragmentation of habitat and the disruption of fauna movement corridors. Indirect impacts from construction activities could also include dust and vehicle exhaust emissions generated from construction vehicles and the potential for vehicle strike. There is the potential for vehicle strike during operation of the proposal and lighting could affect the behaviour of fauna using nearby areas. No other impacts are considered likely.	Complete
Contamination and hazardous materials Construction	Potential hydrocarbon spills from machinery and light vehicles may occur during construction: <ul style="list-style-type: none"> • An emergency spill management procedure should be outlined in the construction management plan. Spills kits would be located at accessible locations during the construction phase and all construction staff would be trained in their use. • Vehicle refuelling if required would occur only in a designated bunded area within the Bayswater property. • All hazardous materials would be stored in bunded containers 	Complete

<p>Operation</p>	<p>Potential brine water leaks may be more likely to occur during the initial connection and testing of the proposed BCP Feedpipe and water leaks and failures may occur during ongoing operation:</p> <ul style="list-style-type: none"> • In the event a large leak is detected, the BCP plant is to shut down including all BCP feed pumps until repair and/or replacement can be completed. • An emergency management procedure would be developed detailing emergency shut down procedures. Spills kits would be located at accessible locations and all AGL Macquarie staff would be trained in their use. • Safe work method statements, material safety data sheets and the emergency management procedure would be accessible at all times throughout the facility. All workers would be trained in their implementation. 	<p>Included in the incident and emergency management plans/procedures.</p>
<p>Traffic and Access Construction</p> <p>Operation</p>	<ul style="list-style-type: none"> • A traffic control plan, if necessary, would be outlined within the construction management plan and approved for use by AGL Macquarie. • Worker parking would be contained within the proposal site wherever possible. <p>Once operational, the proposed alignment of the BPC Feedpipe will not have any ongoing impacts to site or public traffic therefore no mitigation measures are required.</p>	<p>Complete</p> <p>n/a</p>
<p>Water quality and flooding Construction</p>	<ul style="list-style-type: none"> • An erosion and sediment control plan for grading, open trenching and temporary stockpile areas would be included in the construction management plan and be prepared and implemented in accordance with the requirements of Soils and Construction – Managing Urban Stormwater Volume 1 ‘the Blue Book’ (Landcom, 2004) and Volume 2 (DECC, 2008). The plan would include as a minimum: – - Erosion and sediment controls would be installed before any construction starts and inspected regularly, particularly after a rainfall event. Maintenance work would be undertaken as needed. - Clean water would be diverted around disturbed areas. - All stockpiles would be located away from drainage lines. Appropriate erosion and sediment controls would be established and maintained for stockpiles. • A fully equipped emergency spill kit would be kept on-site at all times. • All fuels, chemicals, and liquids would be stored at in bunded areas. • Refuelling of plant and equipment if required is to occur in designed refuelling areas within the Bayswater property. • Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) would be undertaken on a regular basis to identify potential spills or the effects of sediment-laden runoff. If visual inspection identifies concerns, water quality 	<p>Complete</p>

<p>Operation</p>	<p>monitoring should be considered. Data would be assessed against the Australian Water Quality Guidelines for Fresh and Marine Waters (ANZECC 2000).</p> <ul style="list-style-type: none"> • Vehicles and plant would be properly maintained and regularly inspected for fluid leaks. • If groundwater is encountered during earthworks, it would be managed in accordance with the NSW State Groundwater Policy Framework (DLWC 1997) and NSW Aquifer Interference Policy (NOW, 2012) as relevant. • It is recommended that the pipeline be periodically visually inspected as minor leaks may otherwise go undetected. Once operational, the new BCP feedpipe would be visually on a regular basis. Large leaks would result in a reduction or loss of feed to the BCP Plant and would trigger an alarm. In the event of a large leak or failure the BCP Plant and feed pumps are to be shut down in accordance with emergency response plans. • The new BCP feedpipe corridor would require ongoing vegetation management to ensure overgrowth does not hinder the identification of minor leaks via visual inspection. 	<p>Ongoing</p>
<p>Topography, geology and soils Construction</p> <p>Operation</p>	<p>The area of ground disturbance would be kept to a minimum along the proposed alignment:</p> <ul style="list-style-type: none"> • An erosion and sediment control plan would be prepared as outlined in Section 4.5.4. • Disturbed areas would be revegetation in accordance with requirements of the Soils and Construction – Managing Urban Stormwater Volume 1 ‘the Blue Book (Landcom, 2004) and Volume 2 (DECC, 2008). • Revegetation species have been provided within Section 4.5.1 of the report. <p>Once operational, no mitigation measures are required.</p>	<p>Complete</p> <p>n/a</p>
<p>Air quality Construction</p>	<ul style="list-style-type: none"> • During periods of high winds, dust generating activities would be reevaluated and ceased if significant dust is produced. • All construction vehicles would obey speed limits on unsealed roads/surfaces to minimise dust generation. • Plant and machinery would be turned off when not in use and would be fitted with emission control devices complying with Australian Standards. • Construction plant and equipment would be maintained in a good working condition in order to limit impacts from emissions. • During transportation, loads would be covered to avoid loss of material. 	<p>Complete</p>

Operation	Once operational, no mitigation measures are required.	n/a
Visual amenity	<ul style="list-style-type: none"> The construction site would be tidied and all rubbish removed at the end of each day. Site restoration would be commenced as soon as possible after completion of the works. All temporary structures and equipment are to be removed at the completion of works 	Complete
Noise and vibration Construction	<ul style="list-style-type: none"> Construction equipment and machinery would be maintained regularly to ensure efficient operation. A staff and sub-contractor induction would be undertaken to outline work site responsibilities with regard to noise. Staff would be trained to use equipment in such a way so as to minimise noise. Appropriate personal protective equipment, including ear plugs, would be used by all staff working on site. Once operational there will be no noise impacts therefore no mitigation measures are required. 	Complete
Operation		n/a
Heritage Aboriginal Heritage Non Aboriginal Heritage	<ul style="list-style-type: none"> All staff and contractors would be made aware of their responsibilities under the National Parks and Wildlife Act 1974 (NPW Act) and Heritage Act 1977 (Heritage Act) with respect to heritage in NSW. If Aboriginal or non-Aboriginal objects are uncovered during ground works, all works would cease, the area would be cordoned off and secured, and Council and OEH would be contacted for advice on a course of action. Works would not recommence until formal approval to proceed has been received. In the unlikely event that suspected human remains are found, all work must cease, the site secured and the NSW Police notified. If the remains are found to be archaeological, Council and OEH would be contacted to assist in determining appropriate management. Works would not recommence until formal approval to proceed has been received. 	Complete
Waste	<ul style="list-style-type: none"> Waste produced would be managed in accordance with the waste management hierarchy, within which waste avoidance is a priority, followed by reuse and recycling/reprocessing, with disposal as a last resort. A daily site clean-up would be undertaken. Excess excavated material would be reused appropriately for fill or disposed of at an appropriate facility. Excess material requiring waste disposal would first be assessed against the <i>Waste Classification Guidelines</i> (DECCW, 2009) and 	Complete

	<p>disposed of appropriately with supporting waste classification documentation, if required.</p> <ul style="list-style-type: none"> • Garbage receptacles would be provided and recycling of materials encouraged. There would be no disposal or re-use of construction waste on to other land. • Waste would not be burnt on-site. • Liquid waste would be contained in appropriate sealed containers. • Site inductions would ensure staff are aware of waste disposal protocols and attendance would be recorded by the site supervisor 	
Socio-economic	The proposal would not generate significant adverse socio-economic impacts and the purpose of the works is to comply with the ongoing maintenance schedule for Bayswater to ensure efficient and reliable production of electricity for the remainder of the stations life. No mitigation measures are required.	Complete
Energy Use and greenhouse gases	<p>During construction:</p> <ul style="list-style-type: none"> • fuel use would be reduced whenever possible. This could include: – Turning vehicles, machinery and equipment off when not in use. • All vehicles, machinery and equipment would be adequately maintained. <p>Once operational no mitigation measures pertaining to the proposed alignment are required to minimise greenhouse gas emissions or the use of energy.</p>	Complete
DA Reference 8.2018.23.1 – Low pressure pump station stabilisation (SC) / DA Reference 8.2018.23.2 as modified		
Outcome	Commitment	Status
General	The contractor shall prepare a HSEMP for the project for AGLM endorsement prior to mobilising to site. The HSEMP will outline the environmental controls to be implemented for the proposal consistent with those described in this SEE. It shall include a specific sub plan for soil and water management, prepared in accordance with Managing Urban Stormwater – Soils and Construction (Landcom, 2004). The contractor shall not commence works onsite until the AGLM has witnessed all required controls are in place.	Complete
Geotechnical stability	A proof anchor should be installed and tested to assist with the verification of the expected capacity of the anchor system in accordance with GHD 2017a.	Complete
Soils and contamination	In the event that any evidence of contamination is observed during remediation activities, works should cease and a contamination investigation undertaken.	Complete

	Construction plant and machinery must be maintained in good working order or removed from site until repaired.	Complete
	Sediment controls (e.g. silt fences, straw bales wrapped in geotextile etc.) would be installed in accordance with <i>Managing Urban Stormwater: Soils and Construction 2004</i> .	Complete
	Remediation activities will be scheduled during dry weather.	Complete
	Temporary stockpiling of excavated materials would be located away from watercourses and the dripline of trees. Excavated material will be collected for onsite or offsite disposal.	Complete
	Rehabilitation and stabilisation of disturbed areas will be undertaken immediately following completion of remediation activities.	Complete
Surface water, groundwater and aquatic ecology	Implement the measures defined for soils and contamination, which would reduce the potential for any run-off into the Hunter River	Complete
	Storage of construction materials onsite must be kept to a minimum, with hazardous material storage and refuelling on site forbidden so as to prevent leaching, leaking or other transfer of material into adjacent groundwater or waterways	Complete
	Development and implementation of an incident emergency spill plan as part of the HSEMP, incorporating the activities outlined in this SEE, mitigation measures for significant weather events, personnel responsibilities and emergency contact details.	Complete
	Water (if required) for coring of the concrete deck will be contained and collected for offsite disposal.	Complete
	A floating boom shall be used around the work area to capture any pollutants.	Complete
	Chemicals and materials used onsite shall be suitable for aquatic use.	Complete

	<p>Grouting works will be performed to RMS QA specification B114 and under full time supervision of a site supervisor. This must include the following as a minimum:</p> <ul style="list-style-type: none"> • Any onsite mixing of grout materials will be performed in a designated bunded area to contain materials, grout and water. • Drill holes for the rock bolts of diameters to suit the bolts proposed. • Record the details of drilling every borehole. • Water test every drill hole to determine the likelihood of grout loss. • If water loss occurs, waterproof grout the hole in accordance with the following grouting procedures: <ul style="list-style-type: none"> - Record full details of all water tests. - Grout will be transferred from the grout reservoir to the borehole via a sealed trammie pipe inserted into the base of the borehole. - Grout volumes will be monitored to ensure 'grout loss' does not occur. - If 'grout loss' is noted, grouting is to halt, anchor will be removed and the grout left to cure sealing the hole. - A borehole may then be redrilled through the grouted section and grouting works resumed - All excess grout will be removed and disposed of off-site. - Reinstate the terrain to the pre-existing condition to the satisfaction of the supervisor. 	Complete
	Water used for construction shall be clean, free from contaminants and suitable for discharge to the river (pH close to river, low turbidity, non-saline).	Complete
	The HSEMP shall include monitoring requirements throughout the works, as well as monitoring of water quality (surface and groundwater) adjacent to the works. If pollutants are observed above relevant guideline levels, then the works must stop and corrective actions implemented. An incident response plan will be included in the HSEMP.	Complete
Ecology	Native vegetation should only be removed where considered absolutely necessary for completion of the works. Where possible, trimming of native vegetation should be conducted as a less- invasive alternative.	Complete
Waste	All waste material shall be removed from the construction area and disposed off onsite (as directed by AGLM) or offsite at appropriately licenced facilities	Complete
Air quality	Dust suppression via water sprays should be utilised in the event of visible dust emissions.	Complete

	Plant and machinery will be turned off when not in use.	Complete
	Water will be used with drilling equipment to control dust (if applicable).	Complete
DA Reference 54-86 – Construction of Hunter Valley Gas Turbines (MSC)		
Outcome	Commitment	Status
N/a	No Statement of commitments was provided due to the age of the development.	Most standard requirements are covered in the site Environment Protection Licence and site Environmental Management Plans.
DA Reference 20_98 – Development of Ravensworth Coal Unloader Facility (SC)		
Outcome	Commitment	Status
Erosion Control Measures	<ul style="list-style-type: none"> • The area of disturbance will be minimised. • Where appropriate, soils from the route of the siding will be stripped and stockpiled for use in revegetation. • Prestripped soil and cut material stockpiles will be monitored and controlled to ensure no sediment laden runoff reaches Foy Brook. • The rail siding edges and other disturbed areas will be revegetated as soon as possible after construction, using prestripped soils where suitable and hydromulching or a similar technique. A blend of native and exotic grass species will be used in revegetation as approved by the Department of Land and Water Conservation. • Silt cloth, cut off ditches and water management structures will be used during construction to prevent sediment laden runoff from entering Foy Brook. • The access road will be surfaced at the start of construction with suitable drainage control to minimise erosion. 	Complete Ongoing management and maintenance included in site environmental management plans and operational management plans/procedures.

Surface Water	<ul style="list-style-type: none"> • Surface waters, such as the Foy Brook watercourse (Bowmans Creek), will be protected from adverse impact arising from contaminated surface runoff by the separation of drainage from clean and potentially contaminated areas. • Potentially contaminated waters will not be released off-site. • Runoff from areas which may carry coal spillage such as the dump hopper and conveyor transfer stations will be contained in sumps. Collected water from the dump station sump will be pumped to the primary sedimentation pond for initial sediment control, and will then overflow into the secondary sedimentation pond. Both ponds will be regularly cleaned by a bobcat or similar equipment. Water retained in the sedimentation ponds will be re-used for washdown and dust suppression. • Discharge from the secondary sedimentation ponds will only occur during events in excess of the design criteria (1 hour duration. 1 in 10 year storm), when the amount of rainwater runoff will ensure that no additional sediment will reach the natural drainage system. • Effluent arising from domestic amenities water use will be treated on site and disposed of via irrigation of landscaped areas. 	<p>Ongoing management and maintenance included in site environmental management plans and operational management plans/procedures.</p> <p>There is minimal use of the facility as the main coal unloading facility is at Antiene, Ravensworth is used as a backup.</p>
Groundwater	<ul style="list-style-type: none"> • Excavations for the dump station and short section of conveyor tunnel will be filled in promptly. The project will not affect the existing groundwater regime. 	Complete
Flora and Fauna	<ul style="list-style-type: none"> • Revegetation of the project site in the vicinity of the proposed dump hopper with extensive plantings of tube stock trees and shrubs will have a positive impact on the existing degraded state of the abandoned coal dump site. 	Complete
Air Quality	<ul style="list-style-type: none"> • In addition, water sprays fitted at the hopper and transfer stations will suppress dust. • The three conveyors proposed for the coal transfer system will be covered where necessary, and fully enclosed at the Old New England Highway crossing. • There will be no open storage of coal on site. 	<p>Ongoing management and maintenance included in site environmental management plans and operational management plans/procedures.</p> <p>There is minimal use of the facility as the main coal unloading facility is at Antiene, Ravensworth is used as a backup.</p>
Visual Impact	<ul style="list-style-type: none"> • The combination of landscape mounds and tree plantings in front of the hopper enclosure, as well as existing roadside trees, highway embankments, and the proposed cut section of rail siding at its western end, will ensure minimal, if any, impact from the locomotive headlights on highway traffic. 	Complete

Transport	<ul style="list-style-type: none"> Road traffic arising during the operational stage will be limited to the workforce and deliveries needed to maintain operations. 	Ongoing
Auditing, inspection and monitoring	<ul style="list-style-type: none"> Regular environmental auditing and inspection will be undertaken at and around the site to record any environmental changes that may occur. Auditing to ensure compliance with all development and pollution approval conditions. Regular inspection of all aspects of unloader operations to identify potential issues of environmental concerns, such as coal spillage and maintenance requirements for sediment control structures. Implementation of a limited environmental monitoring programme including: <ul style="list-style-type: none"> dust fallout monitoring upwind and downwind of the unloader facility depending on the seasonal wind regime (4 times per year); sampling and inspection of the potential site runoff discharge confluence with Foy Brook. Samples to be collected 4 times per year and to be analysed for Total Dissolved Solids, Non Filtrable residues and Oil and Grease; Annual noise audit of stationary and mobile plant and equipment including receptor impact determination. 	<p>Conducted as part of the AGLM Environmental Management System.</p> <p>There is minimal use of the facility as the main coal unloading facility is at Antiene, Ravensworth is used as a backup.</p> <p>Noise audit no longer required as there are no longer residence at Ravensworth Village. All the surrounding land is now mine owned.</p>
DA Reference 114_2016 – Change of use from storage shed to operations centre (MSC)		
Outcome	Commitment	Status
N/a	No Statement of commitments was provided due to the minor nature of the development.	n/a
DA Reference 223_2004 – Construction of Rail Sidings (SC)		
Outcome	Commitment	Status
Visual Aspects	<ul style="list-style-type: none"> Macquarie Generation propose to establish tree clump screens consistent with existing established vegetation to modify the view from the highway. Macquarie Generation propose to modify the existing AUSTRROADS type B (plus) entry to a type C entry (RTA Specification) to Improve access to the site. Lighting of the entry will also be provided. 	N/a only minor works occurred under this consent as Macquarie Generation made the decision to build the Antiene Rail Unloader Facility.
Hydrological Impact	<ul style="list-style-type: none"> Runoff from the proposed rail sidings area will be treated in local sedimentation pits. The sedimentation pits will be cleaned by bobcat as required. 	N/a only minor works occurred under this consent as Macquarie Generation made the decision to build the Antiene Rail Unloader Facility.

	<ul style="list-style-type: none"> • Rainwater contained within the fuel storage bund area will be passed through the oil/water separator referred to in the previous paragraph on an as needed basis with the treated water also directed to the 'dirty' water dam. • Oily wastewater from the oil/water separator shall be contained on-site for removal by a licensed disposal contractor. • The domestic wastewater from the amenities building will be treated by a package treatment plant adjacent to the office and amenities building with the treated effluent disposed of by low profile Irrigation over landscaped areas. • All clean site runoff bypassing the treatment facilities referred to previously will pass through holding ponds and underflow weirs prior to discharging from the site. 	
Landuse	<ul style="list-style-type: none"> • Access will be maintained to the Newdell Junction box for rail employees, 	N/a only minor works occurred under this consent as Macquarie Generation made the decision to build the Antiene Rail Unloader Facility.
Flora and Fauna Impacts (Construction)	<ul style="list-style-type: none"> • Sediment traps should be used during construction to reduce the impact of sedimentation to Bowmans Creek and the Hunter River. • Stock Dam 1 (possibly on RTA land) will be protected from any adverse Impact associated with the proposal modifications. 	N/a only minor works occurred under this consent as Macquarie Generation made the decision to build the Antiene Rail Unloader Facility.
Flora and Fauna Impacts (Operation)	<ul style="list-style-type: none"> • Mitigation measures that should be used during the operation of the proposed development Include bunding of the fueling facilities and sediment traps down stream of unsealed tracks and hardstands. 	N/a only minor works occurred under this consent as Macquarie Generation made the decision to build the Antiene Rail Unloader Facility.
Heritage	<ul style="list-style-type: none"> • The proposed works program could potentially impact on these archaeological materials, although their presence or absence would need to be determined through excavation and sieving of the recovered sediments to adequately assess this potential Impact. • An archaeological subsurface testing program Is required prior to the commencement of construction works to: <ul style="list-style-type: none"> ○ Investigate the spatial and stratigraphic extent of archaeological materials at sites MG#1 and MG#2; ○ Investigate the presence or absence of buried archaeological materials within areas of high archaeological sensitivity, and Identify if further Investigation and/or impact mitigation works are required; and 	N/a only minor works occurred under this consent as Macquarie Generation made the decision to build the Antiene Rail Unloader Facility.

	<ul style="list-style-type: none"> ○ Investigate the presence or absence of buried archaeological materials within areas of moderate archaeological sensitivity, and Identify if further investigation and/or impact mitigation works are required. 	
Visual Impact	<ul style="list-style-type: none"> • Macquarie Generation propose to plant random native tree clumps along the length of the proposed rail spurs to soften the lineal Impact 	N/a only minor works occurred under this consent as Macquarie Generation made the decision to build the Antiene Rail Unloader Facility.
Hazards	<ul style="list-style-type: none"> • Emergency Response Plan and a Hazard and Operability Study be conducted and that train drivers and other personnel involved with the fueling of trams be Inducted into the site operations. 	N/a only minor works occurred under this consent as Macquarie Generation made the decision to build the Antiene Rail Unloader Facility.
DA Reference 401_2000 – Coal/rail unloader augmentation (SC)		
Outcome	Commitment	Status
Surface Water	<ul style="list-style-type: none"> • Potentially contaminated waters will not be released off-site. • Maximise re-use of water generated and ensure nil discharge of contaminated stormwater from the site for storms up to 1 in 10 year events with 1 hour duration. • The "dirty" stormwater and washdown from the sprays fitted at the transfer stations and the dump station will be collected in sumps at the base of these facilities. • The sumps will be frequently cleaned by a bobcat or similar small plant. • At each transfer station sump, the collected water will be allowed to evaporate. The collected water in the dump station sump will be pumped to the settling ponds indicated on Figure 6 for treatment and storage prior to reuse. • Roof stormwater and other "dirty" stormwater will be collected and transferred to the settling ponds. • "Clean" stormwater will be either diverted and discharged downstream of the site, or harvested for use in the non-potable water system. • Runoff from areas which may carry coal spillage such as the dump hopper and conveyor transfer stations will be contained in sumps. • Collected water from the dump station sump will be pumped to the primary sedimentation pond for initial sediment control, and will then overflow into the secondary sedimentation pond. • Water retained in the sedimentation ponds will be re-used for washdown and dust suppression. 	<p>Conducted as part of the AGLM Environmental Management System.</p> <p>There is minimal use of the facility as the main coal unloading facility is at Antiene, Ravensworth is used as a backup.</p>

	<ul style="list-style-type: none"> Discharge from the secondary sedimentation ponds will only occur during events in excess of the design criteria (1 hour duration, 1 in 10 year storm) 	
Effluent Disposal	<ul style="list-style-type: none"> Amenities effluent will be treated and used to irrigate landscaped areas. Effluent arising from domestic amenities water use will be treated on site and disposed of via irrigation of landscaped areas. 	<p>Conducted as part of the AGLM Environmental Management System.</p> <p>There is minimal use of the facility as the main coal unloading facility is at Antiene, Ravensworth is used as a backup.</p>
Effluent Treatment	<ul style="list-style-type: none"> A Biocycle package sewage treatment plant will be provided in a suitable location to treat amenities wastewater. Treated effluent from the Biocycle plant will be stored and used for irrigation of grassed/vegetated landscaped areas. 	<p>Conducted as part of the AGLM Environmental Management System.</p> <p>There is minimal use of the facility as the main coal unloading facility is at Antiene, Ravensworth is used as a backup.</p>
Air Pollution Control	<ul style="list-style-type: none"> Water sprays will be fitted at the dump hopper and transfer stations to suppress dust generation. An extractive ventilation system will be fitted to allow the basement area to be properly ventilated prior to personnel access to this area. Water sprays will be fitted at the hopper. The hopper will be designed to restrict air flowing inwards, and baffles will close to retain dust emissions within the enclosure. The three conveyors to be constructed will be covered where necessary, and fully enclosed at the Old New England Highway crossing. Built-in baffles in the dump hopper enclosure are designed to contain airborne dust as the bottom dumping coal wagons release their loads. In addition, water sprays fitted at the hopper and transfer stations will suppress dust. There will be no open storage of coal on site. Noise levels generated by the coal unloader will meet the EPA criteria. Dust emissions will be required to comply with EPA approval conditions and operating licence requirements. Dust emissions will be limited as there will be no 	<p>Conducted as part of the AGLM Environmental Management System.</p> <p>There is minimal use of the facility as the main coal unloading facility is at Antiene, Ravensworth is used as a backup.</p>

	open storage of coal, and the hopper and conveyors will be covered and fitted with suppression sprays at transfer points.	
Noise Impact	<ul style="list-style-type: none"> Noise emanating from the coal unloader would not exceed EPA planning level criteria at the nearest rural residences during normal operations. The proposed coal unloader would still meet the maximum planning noise criteria at this locality. The train movements at Nundah Bank due to this proposal will not produce L^{max} levels greater than those existing at the site. 	N/a – no longer residence at the Ravensworth Village.
Landscaping	<ul style="list-style-type: none"> Landscaping of the project area in the vicinity of the proposed dump hopper will have a positive impact on the existing degraded condition of the site. Create landscape mounds between the hopper and the New England Highway. Revegetation of the site will include the planting of 2,500 tube stock trees and shrubs. Revegetation of the project site in the vicinity of the proposed dump hopper with extensive plantings of tube stock trees and shrubs. 	Complete
Visual Impact	<ul style="list-style-type: none"> Views of the hopper enclosure will be limited to east bound traffic for a very short stretch of highway. "Ravensworth Farm" and "Ravensworth Homestead", approximately 2 km north and northeast respectively, may have distant views of the coal unloader. Properties along Hebden Road as it leads from the Ravensworth Rail Crossing may have views of the coal unloader and spur line. Will be visible as a suitably coloured and clad building approximately 8 m high and 29 m long, with the Main Northern Railway behind. It will be at least partly shielded by the landscape mounds proposed for the project site and the extensive tube stock plantings. The proposed conveyor gantry crossing the Old New England Highway will be the most conspicuous aspect of the development from that road. 	Complete
Rail Transportation	<ul style="list-style-type: none"> Would increase rail movements by a maximum of six trains (three return trips) a day. Generate an approximate 17 percent increase in rail traffic in the Singleton Heights area. At most the six additional train movements would represent a 17 per cent increase in rail traffic in the Singleton Heights area. 	Ongoing
Road Transport	<ul style="list-style-type: none"> A new intersection with the New England Highway will be designed and constructed to comply with RTA requirements - AUSTRROADS Type C right turn lane treatment. 	Complete

Monitoring	<ul style="list-style-type: none"> • A regular environmental monitoring programme is proposed for water and dust sampling and an annual noise audit, along with visual inspections for coal spillage and maintenance of sediment control structures. • Auditing to ensure compliance with all development and pollution approval conditions. • Regular inspection. • Implementation of a limited environmental monitoring programme including: <ul style="list-style-type: none"> - Dust fallout monitoring upwind and downwind of the unloader facility depending on the seasonal wind regime (4 times per year); - Sampling and inspection of the potential site runoff discharge confluence with Foy Brook. Samples to be collected 4 times per year and to be analysed for Total Dissolved Solids, Non Filtrable residues and Oil and Grease; - Annual noise audit of stationary and mobile plant and equipment including receptor impact determination. 	Ongoing
Fuel	No fuel storage will be provided on site as part of this development	Complete
Water Supply	Potable water will be stored in a 20,000 L tank for use	Ongoing
Approvals	<ul style="list-style-type: none"> • The application for development consent for the proposed Macquarie Generation Rail Project will be lodged with Singleton Shire Council. • Development consent from Singleton Shire Council for the construction and operation of the coal unloader dump hopper, rail spur, conveyor system, ancillary facilities and access road. • Approval from the EPA under the Pollution Control Act (Clean Air, Clean Waters and Noise Control Acts) to construct and operate the proposed coal unloader. • RTA approval for the design of an AUSTRROADS Type C intersection of the internal access road with the New England Highway. 	Complete
Erosion Control	<ul style="list-style-type: none"> • Prestripped soil and cut material stockpiles will be monitored and controlled to ensure no sediment laden runoff reaches Foy Brook. • The rail siding edges and other disturbed areas will be revegetated as soon as possible after construction. • Silt cloth, cut off ditches and water management structures will be used during construction to prevent sediment laden runoff from entering Foy Brook, • The access road will be surfaced at the start of construction with suitable drainage control to minimise erosion. 	Complete

Heritage	It will not be impacted by the works required for the proposed development.	Complete
DA Reference 460_2001 – Ravensworth rail unloader upgrade (SC)		
Outcome	Commitment	Status
Project	<ul style="list-style-type: none"> • Installation of an additional longer dead end rail • The unloader would then be able to operate at a capacity of 3.7 Mtpa • To operate the rail unloader to a capacity of 3.7 Mtpa or an average of approximately 14,000 tonnes per day • Construction of new spur is anticipated to take approximately 4 months. 	Complete
Rail Transportation	<ul style="list-style-type: none"> • The number of trains unloading at the facility would not increase and would remain at an average of 3 trains per day • Peak daily arrivals of up to 20,000 tonnes or up to an average five trains per day. • The average weekly unloading tonnage will increase from 40,000 t/week to 74,000 t/week. • The average number of unloading days per week will be 5. • On average three train loads per day would be adequate to service the unloader at the augmented unloader capacity. • Would increase rail movements by a maximum of six trains (three return trips) a day. • Generate an approximate 17 per cent increase in rail traffic in the Singleton Heights area. • At most the six additional train movements would represent a 17 per cent increase in rail traffic in the Singleton Heights area • On average 3 trains per day will unload. This average could increase to an average of 5 trains per day should small loads or increased rail distance impact on the coal delivery rate. • The average number of trains being unloaded per day will remain at 3. Due to small loads on increased rail distance this average could increase to 5 train unloadings per day. • At most the average four additional train movements would represent a 7 per cent increase in rail traffic in the Singleton Heights area. 	Complete
Air Pollution Control	<ul style="list-style-type: none"> • Existing pollution control equipment will ensure the acceptable environmental operation of the unloader. 	Ongoing

	<ul style="list-style-type: none"> • Water sprays are fitted at the dump hopper and transfer stations to suppress dust generation. • Similarly, dust emissions will be required to comply with EPA approval conditions and operating licence requirements. • No residences are expected to experience increases in annual average dust deposition levels as a result of this development. 	
Surface Water	<ul style="list-style-type: none"> • Potentially contaminated waters will not be released off-site. • Water retained in the sedimentation ponds is re-used for washdown and dust suppression. • No additional sediment will be carried over into the natural drainage system. • The proposed augmentation will not result in an increase in the design "dirty" catchment area therefore there will be no additional impact to that identified in the original unloader EIS. 	Ongoing
Effluent Disposal	Amenities effluent is treated and used to irrigate landscaped areas.	Ongoing
Noise impact	<ul style="list-style-type: none"> • Noise emanating from the existing and augmented coal unloader will not exceed EPA planning level criteria at the nearest rural residences during normal operations. • The noise impact at the Nundah Bank in Singleton Heights will not increase. • Noise contours shown suggest that the established noise goal of 35 dB(A) will not be exceeded at any receiver under any atmospheric condition likely to occur in the area. • Noise contours shown suggest that the established noise goal of 35 dB(A) will not be exceeded at any receiver under any atmospheric condition likely to occur in the area. • These results show an imperceptible increase in noise levels due to the additional trains. • Construction noise levels are expected to be in the same order as existing average background noise levels at the nearest residences. • Noise levels generated by the coal unloader augmentation will meet the EPA criteria. • Noise impact from the coal unloader operational increase will be minimal. 	Ongoing
Visual impact	<ul style="list-style-type: none"> • The visual impact of the existing unloader is low and will not change with the installation of the additional rail spur. • Excess spoil if generated will be utilised in visual bunding. • The proposed additional rail spur will not modify the existing visual aspects of the rail unloader operation. 	Complete

	<ul style="list-style-type: none"> Visual impact of the new rail spur is minimal. 	
Road Transport	As the number of employees working at the facility will remain the same, there will be no additional road traffic impact from that currently experienced.	Complete
Monitoring	<ul style="list-style-type: none"> Ongoing monitoring of the operation of the facility will ensure air, water, noise and waste disposal impacts are controlled and minimal. The environmental compliance programme includes: <ul style="list-style-type: none"> - Regular inspection of all aspects of unloader operations to identify potential issues of environmental concerns, such as coal spillage and maintenance requirements for sediment control structures; and - Implementation of a limited environmental monitoring programme including: <ol style="list-style-type: none"> Dust fallout monitoring upwind and downwind of the unloader facility depending on the seasonal wind regime (4 times per year); Sampling and inspection of the potential site runoff discharge confluence with Foy Brook. Samples are collected 4 times per year and to be analysed for Total Dissolved Solids, Non Filtrable residues and Oil and Grease; Annual noise audit of stationary and mobile plant and equipment including receptor impact determination. 	<p>Conducted as part of the AGLM Environmental Management System.</p> <p>There is minimal use of the facility as the main coal unloading facility is at Antiene, Ravensworth is used as a backup.</p>
Vibration	Blasting will not be required.	Complete
Construction	<ul style="list-style-type: none"> No fill will be required for the project No fill will be required for the project. 	Complete
Auditing	Environmental audits will be undertaken every two years to confirm continued compliance and identified areas for potential environmental improvement.	Conducted as part of the AGLM Environmental Management System.
Landscaping	<ul style="list-style-type: none"> Create landscape mounds between the hopper and the New England Highway. Revegetation of the site will include the planting of 2,500 tube stock trees and shrubs. Revegetation of the project site in the vicinity of the proposed dump hopper with extensive plantings of tube stock trees and shrubs. Revegetation of the site in the vicinity of the dump hopper with extensive plantings of tube stock trees and shrubs will have a positive impact on the previously existing degraded state of the abandoned coal dump site. 	Complete

Air Pollution Impact	It is not anticipated that the augmentation will result in an increase in air emissions above that currently experienced in the area.	Complete
Effluent treatment	The existing system is capable of adequately treating additional wastewater arising from the facility workforce.	Complete
Social impact	The operational workforce is not expected to increase from that currently servicing the facility, i.e 9 people.	Complete
Erosion control	The use of erosion control measures during the construction of the additional rail spur will minimise the impact of the development on soils and surface waters.	Complete
Heritage	No aboriginal sites will be impacted by the construction of the new rail spur.	Complete