Attachment 1D

Statement of Commitments dated 5 March 2019

	Factor	Management and Mitigation Measures
Air Quality		
1.	Dust Generation	Dust suppression measures such as the use of water carts and sprays will be utilised during construction activities. Dust generating activities will be minimised during adverse (windy) weather conditions to reduce dust generation, where practical.
2.	Diesel fume management	Control measures to be utilised where possible to reduce emissions from diesel engines for vehicles and plant include: • Minimise excess use by scheduling operations to maximise efficiency; • Engines switched off when not in use; • Maintained and serviced according to manufacturer's specifications; • Fleet optimisation applied to reduce vehicle kilometres travelled. Any new mine fleet purchased will have adequate pollution reduction devices fitted.
3.	Dust at mine owned residences	Continue to ensure that Tenancy Agreements include option to terminate without penalty due to air quality concerns.
Noise Vibration and Blasting		
4.	Operational Noise	Noise model predictions will be considered at the daily production meetings to plan evening and night time operations.
5.	Operational Noise	Trained site personnel will undertake attended noise monitoring during the night period, with priority given to receptor areas for which elevated noise predictions were predicted (if any) as per the approved Noise Management Plan (NMP).
6.	Operational Noise	In response to exceedances of a measured or predicted trigger level, operations will be modified to ensure noise emissions meet consent criteria. Modifications may include operating: • Within the pit, and/or, • In areas that provide a high degree of topographical shielding, and/or, • Progressively shutting down equipment, starting with plant operating in the most exposed areas.
7.	Operational Noise	Follow-up attended monitoring will be undertaken to determine the effectiveness of modifications implemented.
8.	Operational Noise	Monitoring and any operating modifications actions will be documented in the Rix's Creek Night Time Noise Monitoring Summary Sheet. A copy of this will be held at site.
9.	Operational Noise	Appropriate overburden emplacement levels/heights will be determined to allow shielded emplacement to occur deeper in the pit during adverse meteorological conditions.
10.	Operational Noise	Haul route alignments within the pit will be designed to maximise the available topographical shielding provided by the pit shell.
11.	Operational Noise	Emplacement areas will be developed to maximise noise shielding and will be further described in the Rehabilitation Management Plan (RMP).
12.	Operational Noise	The mine fleet replacement forecast program will phase-in attenuated plant as follows: • Year 3 – half of the fleet; and • Year 6 – remainder of the fleet; generally in accordance with the timeframes in Section 2 of the EIS Environmental Noise Assessment, as approved in the NMP.
13.	Operational Noise	A 4.5 metre high earth bund will be established to the south of the Southern Coal Haul Road, towards the ROM pad end of the road and adjacent to the infrastructure area.
14.	Operational Noise	The existing earth bund located to the east of the ROM coal pad will be maintained.
15.	Operational Noise	Cladding will be installed on the south and east facades of the CHPP within 12 months of determination of SSD6300.
16.	Operational Noise	Specific night operating configurations will be implemented prior to or during noise enhancing meteorological conditions (temperature inversions).
17.	Vibration and Blasting	The internal Explosive Management Plan will be updated to include established methodology for calculating blast limits for blasting in close proximity to the Rix's Creek Coke Ovens as well as blast monitoring.
Ecology		
18.	Potential impacts to biodiversity	Vegetation and habitat will be removed in a staged manner with the inspection of habitat trees carried out before and during felling operations.
19.	Potential for native fauna habitat displacement during clearing	Significant ecological features associated with standing and dead timber will be assessed and monitored in accordance with the Biodiversity Management Plan (BMP). A qualified and experienced person will conduct pre-clearance surveys to ensure displaced wildlife is removed or relocated at the time of clearing.

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20.	Potential for native fauna habitat displacement during clearing	In accordance with the BMP: • Inspection of hollows will be undertaken by a qualified person prior to and immediately after tree felling; and • Felled trees supporting hollows will be stockpiled for later use in rehabilitation activities.
21.	Potential for wildlife-vehicle collisions	In accordance with the BMP, speed limits will be considered in areas with a confirmed elevated risk of collisions with wildlife.
Soil, Land Capability and Land Use		
22.	Geotechnical Stability Management	The internal 'Ground or Strata Instability Principal Mining Hazard Management Plan' as required by the *Work Health and Safety (Mines and Petroleum sites) Regulation 2014* will continue to be implemented.
23.	Geotechnical Stability Management	Prior to Mining activities reaching the extent of the 2026 conceptual mine plan (whether that occurs before or after 2026), 3D mathematical computer modelling of the rest of Project (2027 – 2037) mining stability will be undertaken to reassess the potential stability impact of ongoing mining.
24.	Soils Management	An internal soil stripping and management plan will be maintained and utilised.
25.	Post Mining Land Use consultation	Targeted community consultation will be undertaken on mine rehabilitation and closure planning and responses to issues documented within the RMP.
Hydrology and Water Quality		
26.	Surface Water Runoff	Within five days of a rainfall event greater than 50mm, sediment dams (in disturbed areas) will be dewatered to provide free storage capacity of at least the settling zone volume.
27.	Surface Water Runoff	Sediment dams may be dewatered to receiving waters after a rainfall event greater than 50mm where TSS concentrations and EC are less than the nominated water quality objectives set in the approved Water Management Plan (WMP) and any EPL.
28.	Surface Water Runoff	Where TSS exceeds the water quality objective, water in dams in accordance with the WMP will be: • Flocculated to reduce TSS; and/or • Pumped to another water storage with available capacity; and/or • Pumped into the mine water management system.
29.	Surface Water Runoff	New surface water diversion drains, outlets, contour drains, catch drains and other waterways will be designed to convey peak runoff discharge rates as per conditions of consent.
30.	Surface Water Runoff	Consistent with the WMP, the following measures will be implemented to manage flooding: • Protect the open cut and the Pit 2 tailings dam (tailings emplacement #3) from inflows due to the 1% AEP Upper Limit flood in Rix's Creek. • Incorporate review of flood protection measures into the design systems of the mine, specifically for Pit 3 along Rix's Creek. The purpose is to ensure containment berms are of adequate height and integrity to withstand the 1% AEP Upper Limit flood in Rix's Creek; • Review the integrity and height of existing berms along the perimeter of Pit 3, upstream of the culvert crossing to Pit 2 tailings dam; and • Ensure that the minimum 35 m floodway width at the culvert crossing to Pit 2 tailings dam is maintained.
31.	Water Quality	Consistent with the WMP, a water management system will be implemented and include: • Diversion of clean runoff from undisturbed catchments away from disturbed areas, wherever possible, using surface drains; • Treatment of dirty (sediment-laden) runoff from overburden emplacements using sediment dams prior to discharge from the site; and • Collection of mine-water runoff from mining areas (including coal stockpiles) within Mine water dams for recycling on site.
32.	Off Site Water	Where access to any off-site water is required, the following options are available: • Negotiate water sharing agreements with neighbouring mines to access sources of excess water; and/or • Utilise held unregulated river allocations; and/or • Purchase additional units on the open market; and/or • Approach other Water Allocation Licence holders for a term transfer. If additional water is required, where the above options do not suit, the mine will establish a pump and pipeline on the Hunter River to access the 258 unit general security allocation it currently owns (subject to separate approval).

	Factor	Management and Mitigation Measures
33.	Sediment and Erosion	Progressive installation of surface drainage and catchment dams will be carried out to direct surface runoff to sediment dams before the water is released from site in accordance with commitments 26 and 27.
34.	Final void water	Undertake an assessment of opportunities for the beneficial reuse of void water as part of the Closure Plan requirements in consultation with DRG.
Groundwater		
35.	Groundwater	Site Specific Trigger Values will be developed through statistical analysis of monitoring data. These trigger values will determine whether mining related impacts on groundwater are occurring, and if so, the appropriate management response.
36.	Groundwater	An annual review of monitoring data will be undertaken by a hydrogeologist in order to assess the impacts of the Project on the groundwater environment, and to compare observed impacts with those predicted from groundwater impact modelling.
37.	Groundwater	Groundwater modelling will be conducted consistent with any conditions of consent.
Aboriginal and Historic Heritage		
38.	Aboriginal Heritage	An Aboriginal Cultural Heritage Management Plan (ACHMP) will be prepared consistent with any conditions of consent and include details of an archaeological excavation program for artefact scatter sites AHIMS #37-6-0235, Rix's Creek AS15 and Rix's Creek AS16.
39.	Historic Heritage	The Historic Heritage Management Plan (HHMP) consistent with any conditions of consent and include: • Consideration of opportunities to minimise impacts on the Coke Ovens; • A research program and evaluation of options available to minimise the impact of tree roots on the integrity of the Coke Ovens. • Research to determine the potential for salvage and recording of some or all components of the Coke Ovens; and • Potential ways to establish public access to the Coke Ovens, following mine closure.
Traffic and Transport		
40.	Operational Rail Traffic Impacts	Forecast tonnages will be provided to ARTC for rail transport planning purposes in accordance with Bloomfield's contract reporting requirements.
41.	Traffic impacts generated during construction of the cut and cover tunnel	A Construction Traffic Management Plan (TMP) will be put in place during construction of the cut and cover tunnel. The TMP will be prepared in consultation with Roads and Maritime Services (RMS) and in accordance with the *RMS Traffic Control at Worksites Manual* and *AS1742.3 Manual of Uniform Traffic Control Devices* (2002). The TMP will include: • Relevant Road Occupancy Licences will be obtained prior to works in the road corridor; • Dilapidation surveys of the New England Highway in proximity to the construction site will be undertaken. These will note the existing condition of the road to allow post construction surveys to identify impacts (if any) that have occurred to the New England Highway as a result of construction works and therefore identify required remediation works; • An audit of the condition of construction vehicle routes will be undertaken prior to the commencement of work, to ensure that construction traffic does not result in a degradation of the road surface to the detriment of all road users; • An 80km/hr speed zone will be implemented for the duration of works along the construction zone to protect the safety of workers and road users. The proposed bi-directional side-track will be designed for 80km/hr speeds and will serve to minimise the impacts of the works on passing traffic, which will use the existing carriageway until the side-track is built, and remain on the side-track until works on the existing carriageway are complete; • Slower 40km/hr speed zones will be implemented for short periods for tasks such as installing safety barriers and carrying out traffic switches. It may be necessary for traffic to operate in one lane while traffic switches are being carried out. On these occasions, traffic will be controlled via portable traffic lights or traffic controllers at either end of the work site; and • Where practicable, works having impact to traffic on the New England Highway will be undertaken outside peak times.
42.	Social	A dedicated enquiry and complaints hotline will be operated by the Mine for the duration of the Project. Complaints will be managed in accordance with the EMS and recorded in a complaints register.

	Factor	Management and Mitigation Measures
43.	Social	Sponsorship and funding through the Bloomfield Foundation (and other programs) will continue for the life of the Project.
44.	Social	Offers of face to face consultation with immediate neighbours and stakeholders will continue for the life of the Project.
45.	Social	The Community Consultative Committee (CCC) will continue in accordance with the "*Community Consultative Committee Guideline: State Significant Projects January 2019"* or conditions of consent.
46.	Social	Contributions to local infrastructure will be provided through a Voluntary Planning Agreement with Singleton Council with contributions being applied to the Singleton Community and Economic Development Fund for use by Council across the Singleton LGA.
47.	Social	Should there be a requirement to employ staff over and above the dedicated Bloomfield workforce, preference will be shown to members of the local community where feasible.
Landscape Character and Visual Amenity		
48.	Visual Impact	Progressive rehabilitation of modified and unmodified landforms on the site will continue to be implemented over the life of the Project and be undertaken in accordance with the existing Mining Operations: planting of grasses, shrubs and tree species on all newly formed landforms as appropriate to the proposed future land use.
49.	Visual Impact	Localised vegetation screens using appropriate tree and understory Landscape Management Plan. Rehabilitation will include extensive ey species to achieve quick growing and stable screening will be established in accordance with the Rehabilitation Management Plan (RMP). Vegetation screening will be provided along areas of visual impact of the New England Highway within the Mining Lease including along the western side of the New England Highway to screen views of Pit 3 where required. Where new screen planting is proposed, it will be placed on bunds to obstruct views of disturbed areas where reasonable and feasible.
50.	Visual Impact	A Visual and Landscape Management Plan (or within RMP) will be prepared to address: • Design and location of new lighting to avoid direct line of sight from areas surrounding the site where practicable; • Location of operational mobile lighting to minimise light spill where reasonable and feasible; • Retention of existing tree cover and safeguarding to the fullest extent where reasonable and feasible, particularly in the vicinity of the tunnel construction and when undertaking works in close proximity to the screening vegetation; and • Landscaping works, including progressive shrub and tree planting to screen infrastructure, maintained to optimise visual screening.
51.	Visual Impact	Progressive rehabilitation and tree planting will be carried out in accordance with the RMP.
Hazards and Risks		
52.	Dangerous Goods	The storage of dangerous goods will be managed is accordance with relevant Australian standards and manufacturer's instructions.
53.	Bushfire	A monitoring program will be conducted to monitor fuel load during the fire season.
54.	Bushfire	Fuel reduction activities will be undertaken to limit the speed and spread of potential unscheduled fires. This will include thinning or removal of undergrowth.
55.	Bushfire	Hazard reduction burning will not be undertaken during periods of declared total fire bans.
56.	Bushfire	Fire trail and access roads to, from and within the mine-owned land will continue to be maintained to a level suitable to provide access for Rural Fire Service tankers.
57.	Bushfire	The responsibilities for fire management will continue to be those outlined in the internal Fire and Explosion Principal Mining Hazard Management Plan.
58.	Bushfire	In the instance of a bushfire event, the existing Emergency Response Procedures for the Mine will be implemented. Bushfire commitments will be included in a Bushfire Management Plan.
59.	Contamination	Spillages will be reported in accordance with the Pollution Incident Response Management Plan (PIRMP) as required under the EPL.
60.	Spontaneous Combustion	The Spontaneous Combustion Management Plan (or within Air Quality Management Plan) will be updated to reflect the operation of the Project and the commitments below.
61.	Spontaneous Combustion	Regular visual inspections of stockpiles will be conducted for the presence of spontaneous combustion (including Inspections will involve observing stockpiles for any visible signs of smoke or heat production).

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62.	Spontaneous Combustion	Future revisions of the MOP (RMP) will be undertaken as required providing an opportunity to review spontaneous combustion procedures if necessary.
63.	Mine Subsidence	Regular visual inspections of the area subject to historical underground mining will be undertaken.
64.	Mine Subsidence	In the event of subsidence being identified, the area will be delineated and appropriate measures undertaken to make the area safe.
Greenhouse Gas		
65.	Greenhouse Gas	A Greenhouse Gas and Energy Efficiency Management Plan will be implemented for the Project (or within the AQMP).
Waste Management		
66.	Waste Management	Current industry standards and legislative requirements for both construction of the cut and cover tunnel and mining will be met.
Rehabilitation		
67.	Infrastructure Areas	During the decommissioning phase should contaminated, carbonaceous or material unsuitable for rehabilitation be identified, it will be stripped and buried either in the final stages of capping of the tailings storage facility or disposed of and covered in the floor of the final void in accordance with the RMP. The “coalaceous” material will be considered for reprocessing before the CHPP is decommissioned.
68.	Infrastructure Areas	A light vehicle access road will be maintained to enable inspections of the site following closure of the Mine as per the RMP.
69.	Infrastructure Areas	The final use of cut and cover tunnels under the New England Highway will be decommissioned unless otherwise agreed with Road and Maritime Services.
70.	Water Management Areas	Water run-off from the rehabilitated landform will be directed into ephemeral channels that flow into the existing drainage pattern around the mine as per the RMP. Temporary sediment controls may be integrated with vegetation and permanent engineering strategies to achieve stability in relevant areas as per the RMP.
71.	Water Management Areas	Where appropriate the water storage dams will be incorporated into the landscape with a view to supplying watering points for livestock. This will be further enhanced by the incorporation at a landscape level of large woody debris and or localised rock stockpiles. The drainage pattern of the final landform will be designed to integrate with the surrounding catchments and will be revegetated to achieve long term stability and erosion control. This will be as detailed in the RMP.
72.	Tailings Emplacement Area	Pit 1 tailings emplacement (tailings emplacement #4) is the only active tailings emplacement planned during the life of the Project. Even though co disposal will be the preferred disposal technique, this area will be maintained for the purpose of backup for tailings management. The tailings emplacement areas will be left for an appropriate period following last disposal for drying prior to rehabilitation. The tailings emplacement areas will be capped and revegetated with a species mix aligned to the land use. This will be as detailed in the RMP.
73.	Overburden Emplacement Areas	Overburden emplacement areas will be detailed in the RMP and be designed so that: • Overburden emplacement capacity is aligned to the final landform design where possible; • The visual impacts of the existing area adjacent to the New England Highway are reduced; • Hazards that the site may pose to unauthorised people who access the area are considered (safety considerations are included); • Runoff water quality is similar to undisturbed lands and will not degrade receiving streams; • The rehabilitated overburden emplacement area will be revegetated with species aligned to the post mining landform and land uses; and • The rehabilitated overburden emplacement area landform will be compatible with the surrounding countryside.
74.	Rehabilitated Lands	The mined lands will be rehabilitated back to pasture and areas of trees over grass consistent with the RMP.
75.	Final Void	The low wall slopes of the final void landform will be designed with an overall slope of around 18 degrees. Design alternatives for the final void will be evaluated and prepared as part of the closure planning process.

	Factor	Management and Mitigation Measures
76.	Unmined Land	The buffer lands will be managed to enhance land use values during and after the life of the Project (whilst owned by Bloomfield). The management of these lands will include: • Corridor management in context of grazing and biodiversity; • Fencing and access control; • Weed and vertebrate pest species control; • Track construction and maintenance; • Strategic grazing and stock control; and • Bushfire management.
77.	Growing Media Development	Sodic soils to be used as a growing media will be treated with ameliorants with these materials being incorporated into the topsoil profile. Sodic subsoils where exposed, will be managed with appropriate erosion and sediment control structures in place (contour banks, sediment retention ponds, rock armouring etc.). Topsoil will be used as a first priority, but where topsoil is not available in sufficient volumes, biosolids and biosolids/mulch mix may be used to improve soil structure.
78.	Ecosystem and Land use Establishment	Land use disturbance will be minimised by clearing the smallest practical area of land at any one time and leaving it exposed for the shortest possible time. Felled vegetation may be used for: • timber for fencing; and/or • incorporating ground cover, understorey species and saplings into stripped topsoil; and/or • Re-spreading large woody debris onto re-contoured land; and/or • Installation of stag trees as potential habitat and refuge for avian and arboreal fauna.
79.	Ecosystem and Land use Establishment	All noxious weeds will be managed and controlled as per the requirements of relevant legislation. A feral animal management and control program will be conducted annually across the Mine. All work will be implemented with the Local Land Services and adjoining land users where practical.
80.	Ecosystem and Land use Sustainability	Maintenance works will be implemented for pasture growth including: • Soil sampling for the purpose of defining fertiliser and seeding regimes; • Application of defined fertiliser – in terms of rates and mix; and • Over sowing of pasture with legumes.
81.	Monitoring Program	Rehabilitated areas will be inspected and monitored annually to identify any areas requiring maintenance or further treatment. Remedial works will then be scheduled to address these areas as set out in the Rehabilitation Strategy.
82.	Monitoring Program	Where appropriate, the rehabilitation procedures will be amended to improve the standard of rehabilitation. Parameters that will be assessed as part of the monitoring program will include: • Landform; • Drainage; • Surface preparation; • Vegetation establishment and development; • Carrying capacity and stocking rates via pasture productivity assessment; • Weeds and feral animals; • Nutrient cycling; • Soils/surface condition; • Land and soil capability; and • Erosion and stability.