

Appendix D

Updated mitigation measures

D.1 Management and mitigation measures

A summary of the environmental management and mitigation measures for the mine development is provided in Table D.1 and for the pipeline development in Table D.2.

Table D.1 Summary of commitments – mine development

Aspect	Measures
Soils	<ul style="list-style-type: none">• During construction, sediment erosion practices, including sediment dams, will be constructed generally in accordance with Managing Urban Stormwater: Soils and Construction – Volume 1 4th Edition (Landcom 2004) and Managing Urban Stormwater Volume 2E: Mines and Quarries (DECC 2008).• Disturbance areas will generally be stripped to the depth nominated in Table 3.1 of the Land and Soil Capability Assessment Addendum (SSM 2020, Appendix E of the EIS), except for soil stockpiling areas and areas of minimal disturbance.• Topsoil and subsoil will be stripped, stockpiled and stored in accordance with the procedures outlined in the CEMP. This will include limiting the height of topsoil stockpiles to approximately 3 m.• During rehabilitation works, subsoil and topsoil will be re-applied to achieve the land and soil capability classes specified in Section 6.2 and illustrated in Figure 6.2 of the 2020 Amendment Report.• Work in areas mapped as having potential for naturally occurring asbestos will be carried out in accordance with Regis' naturally occurring asbestos procedure which will be incorporated into the relevant management plans.• Prior to demolition works of relevant features identified by Ground Doctor (2021), near surface soils will be assessed for potential contaminants of concern and if identified, appropriate remediation works will be undertaken.• An unexpected finds protocol in relation to contamination will be developed, which will detail relevant procedures for the management of unexpected finds (e.g. characterisation of and disposal of potential areas of concern).
Agriculture	<p>A comprehensive suite of management plans will be prepared and implemented for the mine development, which will incorporate measures to minimise impacts to agriculture. Management plans of particular relevance to agriculture will include the Water Management Plans (including an Erosion and Sediment Control Plan), Rehabilitation Management Plan (which will include measures for topsoil and subsoil management), Pest and Weed Management Plan (which may be incorporated into an overarching Biodiversity Management Plan), Bushfire Management Plan, Air Quality Management Plan, Traffic Management Plan, Noise Management Plan and a Recruitment Strategy (which may be incorporated into an overarching management plan).</p> <p>These management plans will be prepared in consultation with relevant government agencies and other stakeholders. They will include monitoring and, where appropriate, establish triggers and appropriate responses. In addition, rehabilitation criteria will be used as the basis for assessing when rehabilitation of the mine development is complete, and post-mining land uses have been successfully re-established.</p>
Water	<p><i>Water management plan</i></p> <ul style="list-style-type: none">• Water management plans (WMPs) will be developed; including the construction phase (CWMP) and the operational phase (OWMP).• The WMPs will include:<ul style="list-style-type: none">– the surface water and groundwater monitoring program, including the existing monitoring network;– monitoring program, including monitoring frequency;– physical water takes and pumping volumes between water storage structures (including the open cut mine and production bores);– site specific trigger levels for water quality parameters to assist in early identification of water quality trends (including TSF seepage migration);– a trigger action response plan;– an erosion and sediment control plan;

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Aspect	Measures
	<ul style="list-style-type: none"> – groundwater and surface water quality performance and early warning triggers based on statistical analysis of the reported ranges in baseline concentrations of identified analytes of concern (eg pH, salinity concentrations and concentrations of other analytes such as pH, As, CN (WAD and Total), S, SO₄, Se, and Al); – groundwater level performance and early warning triggers based on a combination of baseline groundwater level data for selected monitoring bores as well as comparison of observed and model predicted levels for different stages of mine development (operational and closure); – requirements for storing fuels and other potential contaminants on site to minimise the risk of spill; – a program for reviewing and updating the numerical groundwater model as more data and information become available; this program will include reporting requirements; and – mitigation and management measures, including corrective actions and responsibilities. <p>As part of the WMPs, the existing environmental monitoring network will be reviewed and adjusted to ensure adequate spatial coverage and collection of data to validate and update groundwater modelling predictions.</p>
	<p><i>Monitoring</i></p> <hr/> <ul style="list-style-type: none"> • The following surface water and groundwater monitoring will be conducted prior to operations: <ul style="list-style-type: none"> – a comprehensive surface water monitoring program across the area to collect additional data from all identified spring locations; – undertake subterranean fauna surveys in accordance with the Biodiversity Management Plan; – install additional surface water flow monitoring locations in the mine development area; – installation of additional groundwater monitoring bores in the mine development area, as outlined in Section 7.1 of the Groundwater Assessment Addendum (Appendix H of the 2020 Amendment Report). <hr/> <ul style="list-style-type: none"> • The following surface water and groundwater monitoring will be conducted during operations: <ul style="list-style-type: none"> – routine monitoring of streamflow monitoring stations, including continuous water quality monitoring sensors for pH, EC, temperature and turbidity; – bi-annual channel stability monitoring via established photo and assessment points on the Belubula River downstream of the proposed TSF (to be established immediately prior to construction) at approximately 50 m intervals; – routine monitoring of water quality for all site water storages; – routine health monitoring of PCT 951 vegetation; – routine inspections of sediment control structures as well as inspections following rainfall events of 20 mm or more in a 24-hour period; – monitoring of the stored water volume in each storage on-site, including the open cut and production bores; – monitoring of volumes of water pumped between selected storages in the water management system; and – monitoring of volumes diverted as part of the clean water diversion for the mine development. <hr/> <ul style="list-style-type: none"> • A watercourse monitoring and response strategy will be developed for the closure phase and will include: <ul style="list-style-type: none"> – monitoring and remediation of the final water diversion, to maintain responsibility for watercourse structure and integrity until riparian vegetation is established; – monitoring of streamflow, channel stability and water quality will continue for at least two years following completion of final water diversions; – monitoring data will be reviewed at annual intervals (as part of the annual review process) over this period and involve assessment against long term performance objectives that are based on baseline conditions or a justifiable departure from these, with due allowance for climatic variations; and – provisions to extend monitoring period if objectives are not substantially met within the post closure monitoring period. Monitoring and maintenance periods will continue until vegetation is established and sediment transfer and channel geomorphic features are functioning.

Table D.1 **Summary of commitments – mine development**

Aspect	Measures
Noise, vibration, and blasting	Noise and vibration will be managed during construction and operation in accordance with the relevant measures in the CEMP and OEMP respectively.
	<i>Construction</i>
	<ul style="list-style-type: none"> During the first six months of construction, works will be undertaken during standard construction hours, as per the ICNG. Outside of these hours, some works will be carried as required (such as limited construction activities, environmental management such as dust control, delivery of oversized equipment, and servicing of equipment). In these circumstances, works will be undertaken in accordance with the noise criteria for outside of recommended standard hours in the ICNG. The following general management and mitigation measures will be implemented during the construction phase of the project: <ul style="list-style-type: none"> ensure construction activities meet NMLs for standard construction hours and out of hours periods provided in Table 6.10 of the 2020 Amendment Report as far as practicable; scheduling of construction of key structures in southern portion of mine development will be staged to generally avoid concurrent construction of WMFs 4, 5 and 6 and pit amenity bund; equipment fleet with overall reduced noise output will be used, as outlined in the Amended Noise and Vibration Impact Assessment – Mine Development (MAC 2020a, Appendix K of the 2020 Amendment Report); where feasible construction activities will be avoided adjacent to residential receivers between 6 pm to 7 am; adopt alternative measures to minimise impact on the community if noise control measures do not adequately address any exceedances; implementation of management and mitigation measures noted in AS2436-2010 Guide to Noise Control on Construction, Maintenance and Demolition Sites if reasonable and feasible; construction noise levels will be monitored to validate the predicted construction noise levels, and subsequently re-evaluate the predicted construction noise levels at assessment locations if required; and affected landholders will be consulted before and during construction where exceedance of NMLs are predicted and will be notified of proposed mitigation measures that will be used to manage construction noise levels to below ICNG NMLs.
	<i>Operations</i>
	<p>The following reasonable and feasible mitigation measures will be applied:</p> <ul style="list-style-type: none"> application of noise suppression to key mobile equipment (trucks, excavators and drills) so that the noise envelope remains consistent with that presented in the amended NVIA for the 2020 Amendment Report (MAC 2020a); use of equipment with equivalent sound power levels and spectral content as outlined in the amended NVIA for the 2020 Amendment Report (MAC 2020a) and to conform to the applicable noise criteria limits; screening of the primary crusher within the ROM pad; construction of two noise barriers – the ‘pit amenity bund’ and the ‘southern amenity bund’ of the waste rock emplacement, to serve as noise and visual barriers between mining operations and receivers in Kings Plains; construction of the southern amenity bund generally in accordance with the indicative mine progression illustrated in Figures 2.3a to 2.3f of the 2020 Amendment Report; earthworks to take place on the front face of the southern amenity bund during the daytime period (7am to 6pm) only. mine scheduling to create protected dump locations for night-time dump locations in the daytime to minimise noise emissions during the more sensitive night-time period.
	<ul style="list-style-type: none"> A noise management plan will be developed as part of the OEMP, which will: <ul style="list-style-type: none"> identify noise-affected properties consistent with the noise and vibration assessment and any subsequent assessments; outline mitigation measures to achieve the noise limits established; specify measures to quantify, document and ameliorate impacts that are greater than predicted, if they occur;

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Aspect	Measures
	<ul style="list-style-type: none"> – specify protocols for routine, regular attended and unattended noise monitoring of the project; – outline the procedure to notify property owners and occupiers that could be unduly affected by noise from the mine; and – establish a protocol to handle noise complaints that includes recording, reporting and acting on complaints. – a real-time noise monitoring system will be installed to measure and report live operational noise levels.
	<i>Blasting</i>
	<ul style="list-style-type: none"> • The MIC for blasts at the mine development will be limited to 300 kg, unless completion of test blasts to validate predicted blasting emissions provided in Table 47 of the amended NVIA for the 2020 Amendment Report (MAC 2020a finds that a different MIC can be used to achieve compliance at the nearest sensitive receiver. • Blasts will be limited to the hours of 8am to 4pm, Monday to Saturday, unless otherwise agreed to in consultation with the EPA and in favourable wind conditions, or it can be demonstrated that it is necessary to proactively manage safety and environmental issues.
Air quality	Air quality will be managed during construction and operation in accordance with the relevant measures documented in the CEMP and OEMP respectively.
	<i>Particulate emissions</i>
	<ul style="list-style-type: none"> • chemical dust suppressants will be applied to high traffic routes exiting the pit to the ROM pad and to the waste rock emplacement. All other unsealed transport routes (eg pit, ramps, soil haulage) will be controlled through water suppression; • a maximum road speed limit of 60 km/hr will be posted to all internal roads; • the design of crushers, screens and associated transfer points at the processing circuit will include dust control, dust extraction and / or filter systems; • all exposed conveyors at the processing circuit will be covered; • water sprays will be utilised at the ROM pad hopper / primary crusher dump pocket; • ROM pad operations will be controlled through the use of water carts and / or water sprays; • the fine ore stockpile will have a cover; • in pit drill rigs will be fitted with dry filter capture devices; • wet suppression via water carts will be applied where required to dozer activity areas for waste rock emplacement and soil operations; and • soil stockpiles, waste rock emplacement and TSF walls will be progressively rehabilitated through hydromulching, hydroseeding, or similar.
	<i>Diesel emissions</i>
	<ul style="list-style-type: none"> • where feasible, equipment compliant with a more recent emission standard than USEPA Tier 2 will be sourced; • the use of electric powered mining equipment will be considered during detailed design; • haul roads will be routinely maintained to reduce truck tyre rolling resistance; • the distance of material haulage to ROM pad and waste rock emplacement will be optimised to reduce haulage distances wherever feasible; • all equipment will be routinely serviced to maintain manufacturers' emission specifications; • idling of diesel equipment will be minimised wherever feasible; and • low sulphur diesel fuels and lubricants will be used where feasible.
Greenhouse gas	<p>The following measures will minimise the GHG emissions from the mine development:</p> <ul style="list-style-type: none"> • adoption of energy efficient lighting technologies and hot water and air conditioning systems wherever practical; • use of alternative energy sources where feasible, such as solar power;

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Aspect	Measures
	<ul style="list-style-type: none"> undertaking periodic audits and reviews on the amounts of materials used, amount of mine waste and non-mine waste generated and disposed; and sourcing of materials locally where feasible to minimise emissions generated from upstream activities.
Biodiversity	<p><i>Terrestrial biodiversity</i></p> <p>The following measures will minimise the potential for indirect impacts on biodiversity for the mine development:</p> <ul style="list-style-type: none"> the limit of approved disturbance areas will be identified on the ground through the use of suitable visible markers and ensure that all ground disturbing activities are only undertaken within approved areas; vegetation will be carefully removed in such a way that avoids damage to surrounding vegetation; pre-clearing inspections will be undertaken to identify and, where practicable, remove nesting or roosting fauna; specific procedures for Koala pre-clearing inspections will be developed. If Koalas are found to be present, appropriate methods (such as staged clearing) will be followed to allow any Koalas to move unassisted into adjacent retained vegetation. Where Koalas do not move unassisted, animals may be captured during clearing works and relocated to the nearest patch of retained vegetation. a revegetation project will be developed and implemented as part of the Biodiversity Management Plan targeted at Koalas; the area of native vegetation and Koala habitat north of the waste rock emplacement area will be retained and protected; staged clearing of native vegetation and fauna habitat will be undertaken where possible to minimise impacts to native fauna species; suitable and sufficient vegetation will be stockpiled onsite for use during rehabilitation operations and other beneficial uses, where practicable (larger vegetation may be retained whole); a weed and pathogen monitoring program will be implemented; weed management and pest control programs will be undertaken in consultation with surrounding landholders, based on the results of the weed and pathogen monitoring program; progressive rehabilitation will be undertaken where possible; increase in tree cover will be monitored during rehabilitation works against benchmark values for the target PCTs (to be selected during development of the Biodiversity Management Plan; and A biodiversity offset strategy will be prepared in consultation with BCD and implemented, in accordance with the strategy outlined in the BDAR (EMM 2022). <p><i>Aquatic ecology</i></p> <p>An aquatic ecology offset strategy will be prepared and implemented in consultation with DPI Fisheries and in accordance with the <i>Biodiversity Offsets Policy for Major Projects Fact Sheet: Aquatic Biodiversity</i> (DPI 2014). The strategy would include a rehabilitation and remediation program focusing on downstream sections of the Belubula River, Tributary A and Tributary B within the mine development project area and may include:</p> <ul style="list-style-type: none"> undertaking aquatic habitat rehabilitation within degraded areas outside of the disturbance footprint, including remediation of eroded waterways and planting of indigenous aquatic macrophyte species; undertaking riparian habitat rehabilitation within degraded areas outside of the disturbance footprint, including remediation of eroded banks and planting of indigenous riparian plant species; removal of terrestrial and aquatic introduced and weed species from the riparian zone and within waterways; fencing of rehabilitated areas and waterways to ensure grazing by stock and native herbivores is mitigated (excluding areas where final land use will comprise pastoralism); re-snagging of areas of waterway where semi-permanent or permanent surface water pools exist, and/or in areas where high-flow would occur during flood events; and removal of existing barriers to fish passage in the project area (that do not facilitate the transport, mine development or closure stock watering requirements), including constructed soil dams, livestock dams, sediment alluviation, access tracks and blocked culverts.

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Aspect	Measures
Aboriginal heritage	<p>The following measures will manage impacts on Aboriginal Heritage for the mine development:</p> <ul style="list-style-type: none"> • an Aboriginal cultural heritage management plan (CHMP) will be prepared in consultation with the RAPs and Heritage NSW, which will detail management of Aboriginal heritage items during construction and operation of the mine development generally in accordance with the measures outlined in Table 6.32 in Section 6.10 and Appendix O of the 2020 Amendment Report. The CHMP will also outline the protocol for unanticipated finds such as artefacts and skeletal remains. • invitation for the continued participation of RAPs; in particular for the recording, collection, curation, storage and replacement of artefacts; • cultural awareness training will be provided for site personnel through the site induction process; and • Regis will consult with the Orange Local Aboriginal Land Council regarding the commission of a social and cultural mapping study with relevant traditional owners for the project area.
Historical heritage	<p>The following measures will manage impacts on historic heritage for the mine development:</p> <ul style="list-style-type: none"> • a historic heritage management plan will be prepared in consultation with DPE and Heritage NSW. The plan will describe the measures to manage and mitigate historic heritage impacts during construction and operation of the project, generally in accordance with the management measures documented in Table 6.39 in Section 6.11 and Appendix O of the 2020 Amendment Report. The management plan will also outline the protocol for unanticipated finds such as artefacts and skeletal remains; • management measures will include a subsurface testing program, archival recording and salvage for the three sites directly impacted, as described in Appendix O of the 2020 Amendment Report; • cultural awareness training will be provided for site personnel; and • a conservation management plan will be prepared for Hallwood (MGP-H23), along with archival recording. This plan will be provided to Cabonne Council. • The following measures will be carried out with regard to the Archaeological (subsurface) testing program: <ul style="list-style-type: none"> – Prior to test excavations taking place the Regis will submit an Archaeological Research Design and Excavation Methodology undertaken by a suitably qualified and experienced Excavation director which outlines the nature of the archaeological programme, proposed artefact analysis and the research questions to be answered by the archaeological programme. – The name of a suitably qualified and experienced Excavation Director will be submitted for endorsement, who is able to satisfy the Excavation Director Criteria of the Heritage council of NSW for the proposed activity and significance level. – Following the archaeological testing programme, Regis and Excavation Director will submit a report detailing the results of a testing programme to Heritage NSW, which includes a re-evaluation of the significance of the archaeological sites and determines whether a salvage excavation is warranted.
Traffic	<ul style="list-style-type: none"> • Commitments relating to traffic and transport include: <ul style="list-style-type: none"> – Construction of a new intersection off the Mid Western Highway, as described in the TTA (Appendix Q of the 2020 Amendment Report), to provide access to the mine development project area, east of the Walkom Road (east) intersection and will consist of an auxiliary left turn lane and a channelised right turn lane; – once constructed, all vehicles will access the mine site via the new access road off the Mid Western Highway; – the use of mine-operated buses during operation will be investigated. Workers will be encouraged to travel to the site via car-pooling; – truck advanced warning signage will be installed in advance of the intersection in both directions along the Mid Western Highway; – the permitted routes and time restrictions for oversize vehicles, which may include either night-time or daytime deliveries, will be determined in consultation with TfNSW and documented in the CEMP and OEMP before construction commences. TfNSW will decide on the oversize vehicle routes and travel times for the project on a case by case basis in accordance with its policy for oversize vehicle movements within key transport routes; – fog-activated warning signs will be installed on the Mid Western Highway in advance of the new access intersection, in consultation with and the approval of TfNSW;

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Aspect	Measures
	<ul style="list-style-type: none"> – raised reflective pavement markers will be installed at the new intersection; – operational restrictions limiting heavy vehicles movements which cross the road centreline when visibility is less than the safe intersection sight distance. An infrared visibility sensor may be used to measure visibility at the intersection; and – for Dungeon Road only, operational restrictions may include limiting all heavy vehicles movements to daylight hours. • A Traffic Management Plan (TMP) will be developed and implemented, including a Construction Traffic Management Plan (CTMP). Prior to commencement, the TMP is to be circulated for review and incorporate any requirements of Councils for their affected local roads and TfNSW for affected classified roads. The plan(s) will include (but not be limited to): <ul style="list-style-type: none"> – a Drivers Code of Conduct; – a commitment to the use of minibuses during construction; – an enforceable policy for staff and contractors to use Millthorpe Road (Blayney – Shadforth, a State classified road) in preference to Guyong Road where the journey is not unreasonably lengthened; – heavy vehicle transport procedures in compliance with the requirements of the National Heavy Vehicle Regulator (NHVR) and codes for transport of hazardous materials; – details of origin, destination, quantity, size and frequency of heavy vehicles movements including offsite water cart movements and Over Size Over Mass (OSOM) truck loads associated with the development and any special measures required accommodating these; – relevant permits will be obtained from the relevant consent authority(s) for OSOM; – procedures for addressing concerns raised by the community on project-related matters; – toolbox meetings to facilitate continuous improvement initiatives and incident awareness; – truckloads will be covered at all times when being transported, to minimise dust and loss of material onto roads which may form a traffic hazard; – scheduling of heavy vehicle movements to occur outside of commuter peak periods, outside of school bus pick up and drop off locations is to be avoided, to avoid local events, and to minimise convoy or platoon lengths. – procedures for heavy vehicle movements to mitigate the effects of local climatic conditions during all phases of the project (eg dust, heavy fog, wet weather, ice or snow); and – measures to ensure responsible fatigue management and discourage driving under the influence of alcohol and/or drugs, dangers of mobile phone use, importance of driving to the conditions, and adherence to posted speed limits.
Visual amenity	<ul style="list-style-type: none"> • The following project design measures will be adopted: <ul style="list-style-type: none"> – waste emplacement activities during night time will occur only in the northern portion of the waste rock emplacement prior to completion of the southern amenity bund to minimise direct lighting impacts; – a screen of existing vegetation will be maintained around the southern edge of the open cut pit, where practicable; – works on the southern face of the southern amenity bund will occur in the daytime period only (7am to 6pm); and – the conceptual micro-topographic design will be progressed and refined in the final landform design. <p>Onsite visual mitigation measures will include:</p> <ul style="list-style-type: none"> • open cut pit: <ul style="list-style-type: none"> – continue seed collection from native vegetation that is proposed to be cleared prior to commencement of clearing for use in replanting and landscape rehabilitation programmes; – implementing machinery and vehicle exclusion zones to protect remaining vegetation; – where possible, utilise appropriate barriers (eg shipping containers) which are generally consistent in colour to the surrounding vegetation/landscape and are strategically positioned where required to provide screening for residential receivers from the open cut pit; and

Table D.1 **Summary of commitments – mine development**

Aspect	Measures
	<ul style="list-style-type: none"> – plan vehicle routes on the open cut mine pit to minimise direct light to residential receivers located south of the project area where practical. • waste rock emplacement area: <ul style="list-style-type: none"> – complete rehabilitation of the southern and western faces of the waste rock emplacement area as soon as possible; – a planting strategy will be designed with the community using a combination of grasslands, woodlands and cultural planting patterns that emulate existing patterns in the landscape; and – new plantings will be maintained and where necessary replacement landscape works will be undertaken to ensure planned patterns are achieved and viable. • ROM pad: <ul style="list-style-type: none"> – the ROM pad and retention batters will be rehabilitated early in the mine life with vegetation consistent with the existing vegetation pattern and type of the surrounding landscape; – remaining and planted vegetation will be maintained and any areas with unsatisfactory levels of regrowth will be reseeded; and – where possible, utilise appropriate barriers (eg shipping containers) which are generally consistent in colour to the surrounding vegetation/landscape and are strategically positioned where required to provide screening for residential receivers from the open cut pit; and • Off-site mitigation will be carried out in consultation with land holders that will experience moderate to high visual impacts. Negotiated agreements, as described in Chapter 5 of the 2020 Amendment Report, will be progressed with identified residents.
	<i>Lighting</i>
	<ul style="list-style-type: none"> • Lighting during construction and operation will comply with AS/NZS: 4282:2019 Control of the Obtrusive Effects of Outdoor Lighting. Additional measures to lessen the impact of direct and diffuse lighting will include: <ul style="list-style-type: none"> – appropriate positioning and aiming of lights; – use of shielded fittings where appropriate; – restriction of night lighting to minimum timeframes required; – use of energy efficient lighting where appropriate; – use of asymmetric beamed flood lights where appropriate; and – use of warm coloured fixed lights where possible. • mine operations will regulate vehicle movement along the site access road as per the Driver Code of Conduct (eg headlights on low beam where possible etc).
Hazards and Risks	<i>Bushfire</i>
	<ul style="list-style-type: none"> • Mitigation measures as outlined in the Bushfire risk and hazard assessment (contained in Appendix EE of the EIS) will be implemented to manage bushfire risk, including: <ul style="list-style-type: none"> – vehicle refuelling will be confined to designated refuelling bays (where practicable); – fire extinguishers will be provided in buildings, vehicles and refuelling areas; – spill response kits will be available; – firefighting water reticulation with diesel pump backup will be provided to the surface infrastructure facility; – the Emergency Response Plan (ERP) will be reviewed after incidents of bushfire or other fires as well as annually at the end of each bushfire season (approximately April-August) and amended, if required; – A bushfire management plan will be prepared in consultation with forestry corporation of NSW (FCNSW), NSW RFS and Fire and Rescue NSW and implemented for construction, operation and decommissioning, which will govern the implementation of the above listed management measures; and – The bushfire management plan will include notification procedures for FCNSW, NSW RFS and Fire and Rescue NSW

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Aspect	Measures
	<p><i>Hazardous materials</i></p> <ul style="list-style-type: none"> explosives will be stored in a magazine facility designed to meet the separation and design requirements in AS2187.2 2006 Explosives – Storage, Transport and Use. Sodium cyanide will be stored consistent with the International Cyanide Code; and a hazardous materials management plan will be developed, which will describe the measures that will be implemented to ensure the safe handling, storage and transportation of hazardous materials used onsite.
	<p><i>Consequence assessment of TSF</i></p> <ul style="list-style-type: none"> Regis will consult with Water NSW and other relevant agencies as part of the TSF consequence assessment carried out in accordance with Dam Safety NSW guidance notes.
Social	<ul style="list-style-type: none"> Prior to commencement of construction Regis will develop a Construction Workforce Accommodation and Management Strategy (CWAS) to address the predicted impacts of the construction phase workforce on housing and short-term accommodation supply in the Blayney LGA. The strategy will be prepared in consultation with BSC, Orange360 and key accommodation providers. In addition to the CWAS, Regis will: <ul style="list-style-type: none"> focus on securing local contractors during the construction phase, to reduce the size of the NLH workforce; monitor local and regional housing market activity in the period prior to construction to inform the CWAS, and make changes to the workforce accommodation strategy as necessary to manage potential impacts; engage further with Orange360 and accommodation providers in Bathurst and Orange LGAs to confirm occupancy rates and availability in short-term accommodation options in these locations; manage workforce demands during periods of high regional accommodation demand e.g. Bathurst 1000, to free up short-term accommodation for the tourism industry sector; following commencement of operations, provide Orange360 with the long-term maintenance shutdown schedule for the mine, and where necessary ensure alignment of shutdown periods outside of periods of high accommodation demand eg Bathurst 1000; communicate with larger operating companies such as Purina and Cadia Mine to understand any expansion/reduction in services that may impact short-term accommodation availability in Blayney during the construction phase and take necessary action through the CWAS and in coordination with these companies to minimise any adverse impacts; undertake further engagement with Housing Plus and other relevant housing support services to identify suitable actions to offset potential short-term impacts on low to medium income households in the Blayney LGA; and establish joint meetings with representatives of other major projects or existing significant operations, such as Cadia Mine, in relation to any expansion work regarding management and monitoring cumulative impacts to the Blayney housing market. A Social Impact Management Plan will be developed, which will include the following: <ul style="list-style-type: none"> Stakeholder Engagement Plan; Corporate Volunteer Strategy; Local Content Plan; Indigenous Participation Plan; and Recruitment and Training Strategy.
Rehabilitation and Closure	<p><i>Rehabilitation</i></p> <ul style="list-style-type: none"> The overarching rehabilitation objective of the mine development is to restore the land as much as possible to its pre-mining land use, ultimately, an agricultural land use comprising of grazing on improved pasture, combined with some woodland areas. Within five years prior to mine closure, Regis will prepare a detailed mine closure plan with the aim of creating a land use capability compatible with the pre-mining agricultural land use (unless other beneficial uses are pre-

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Aspect	Measures
	determined and agreed). This detailed closure plan will be prepared in consideration of input from key government agencies, Blayney Shire Council, relevant stakeholders (including the nearby community) and applicable guidelines and standards at the time.

Table D.2 Summary of commitments – pipeline development

Aspect	Measures
Soils	<ul style="list-style-type: none"> • Soil erosion and sediment management will be implemented during construction activities generally in accordance with the Blue Book. • Regis will progressively undertake some sampling of soils along the pipeline corridor for erosion and agronomic constraints at a scale of approximately 1:25,000 as recommended by <i>Australian Soil and Land Survey Handbook</i> (CSIRO, 2009) and the <i>Guidelines for Surveying Soil and Land Resources</i> (CSIRO, 2008). • Sampling will be undertaken along the corridor prior to construction works commencing in each soil landscape, focusing on the Kurosols and Sodosols (Cullen Bullen, Lithgow, Capertee, Sunny Corner, Yetholme, Mookerawa, Mullion Creek, Raglan and Rocks Soil Landscapes) to refine the boundaries of reactive soils and determine erosion and agronomic amelioration requirements. • The details of the soil sampling plan will be documented in the CEMP to be prepared for the pipeline, post determination, and in consultation with DPI-Agriculture. • Soil testing for the following will be undertaken during the detailed design stage: <ul style="list-style-type: none"> – acid sulphate soils, in the areas identified as having a probability of occurrence (albeit low) and in the areas which have been submerged such as around the Macquarie River, Saltwater Creek, Evans Plains Creek and Queen Charlotte Creek; – a risk assessment will be carried out in relation to potential asbestos containing sites to identify the risk of airborne asbestos released into the air; and – naturally occurring asbestos in the area identified in the Vittoria State Forest (subject to the risk assessment). • An unexpected finds protocol in relation to contamination will be developed. Any excess soil emanating from Centennial's Angus Place or SCSO to be disposed of off-site will be characterised and disposed of in accordance with the waste classification guidelines (DECC 2014). • If required, in areas where specific sources of potential contamination have been identified (Ground Doctor, 2021), excavated soil will be used as backfill as close to the location from which it was removed as possible. • Any naturally occurring asbestos identified in the pipeline corridor will be managed and remediated in accordance with Regis' naturally occurring asbestos procedure.
Agriculture	<ul style="list-style-type: none"> • Property Management Plans and Rehabilitation Management Plans will be prepared for each private property traversed by the pipeline, including a Landholder Communication Plan, to ensure adequate notification of the construction phase is provided to all directly affected landowners. • A CEMP and OEMP will be prepared and implemented, which will address the procedures and management of all aspects of land disturbance, soils, erosion and sediment controls, rehabilitation, flooding, waste, construction noise and traffic. The CEMP and OEMP will also provide details of the formal complaints handling procedure, as well as mitigation measures to limit the introduction and spread of significant weeds and pathogens. • A CTMP will be prepared prior to construction of the pipeline as part of the CEMP. The CTMP will identify management strategies to be adopted during the pipeline construction to effectively manage traffic during construction so as to avoid impacts on the road network. • To avoid impacts to surface water quality, erosion and sediment controls will be installed and maintained prior to the start of the construction activities (progressively along the corridor), in accordance with the Blue Book (Landcom 2004).
Biodiversity	<p><i>Terrestrial biodiversity</i></p> <ul style="list-style-type: none"> – Direct impacts on Bathurst Copper Butterfly host plants will be avoided. – Direct and indirect impacts on potential Tarengo Leek Orchid habitat will be avoided (to be informed by the outcomes of a targeted survey in November 2020). – The pipeline disturbance footprint width will be limited to 6 m where it intersects EPBC Act-listed Box Gum Woodland. – The biodiversity offset strategy for the pipeline corridor will be finalised when the final disturbance footprint is confirmed during detailed design.

Table D.2 **Summary of commitments – pipeline development**

Aspect	Measures
	<ul style="list-style-type: none"> – The pipeline corridor will be clearly marked on the ground through the use of suitable visible markers and ensure that all ground disturbing activities are only undertaken within approved areas. – Pre-clearing inspections will be undertaken to identify and, where practicable and necessary, remove nesting or roosting fauna. – Trenches, while left open, will be subject to daily inspection and escape measures or shelter provided (eg ramps or material under which animals can shelter), as required. If species are trapped in the trench they will be appropriately freed.
	<i>Aquatic ecology</i>
	<ul style="list-style-type: none"> • All water course crossings will be constructed in accordance with all relevant policy and guidelines for the construction of pipelines within water courses, including the policy and guidelines for fish habitat conservation and management (DPI 2013).
Water resources	<i>Construction</i>
	<ul style="list-style-type: none"> • An emergency Management and Monitoring plan addressing the potential impacts such as leaks and breakages will be prepared. The plan is to detail responsible parties and emergency contact details. The plan is to be submitted to Bathurst, Lithgow and Blayney Councils prior to commissioning of the pipeline. • Regis will consult with Water NSW during the preparation of the CEMP for the section of the pipeline development within the Sydney drinking water catchment. • Further geotechnical assessment will be carried out at crossings of high fragility watercourses as identified in Table 6.7 of the 2020 Amendment Report as well as watercourses identified with the geomorphic risks outlined below to assist with the selection of the most appropriate construction method and mitigation measures: <ul style="list-style-type: none"> – For water crossings with a sand bed (Evans Plains Creek, McLeans Creek, Salt Water Creek and an unnamed 3rd order water course on the southern pipeline option (identified as S14 in Gippel 2020)), the pipeline construction trench depth will be below the base of the sand bed. The depth of sand will be comprehensively surveyed as part of the geotechnical assessment to be undertaken during the detailed design stage. – The crossing at Pipers Flat Creek and an unnamed 4th order non-perennial along the southern pipeline option (identified as crossing 14 in Gippel 2019) have exposed bed rock. These sites will be surveyed as part of the geotechnical assessment to be undertaken during the detailed design stage to determine the best approach to construction. – The risk of an upwards migrating knickpoint impacting the five additional knickpoints identified along the revised pipeline route options (in Section 6.4.2) (in addition to the crossing 68 as identified in Gippel 2019), will be mitigated by monitoring the position of the downstream knickpoints, stabilising the knickpoints using structural works, or re-locating the crossing further upstream. • As part of the CEMP for the pipeline development: <ul style="list-style-type: none"> – In consultation with DPE Water, Regis will develop a hierarchy of procedures for any excavation of watercourses based on the published NSW River Styles database and other watercourses identified as at risk to geomorphic change. – Geomorphologic criteria will be established to prioritise those rivers and sections/reaches that are vulnerable to degradation on disturbance, particularly targeting bed and bank stability. – Devise a remediation and reconstruction strategy in consultation with DPE Water for watercourses crossings of 3rd order and greater. The strategy will be consistent with Rutherford, Jerie and Marsh A Rehabilitation Manual for Australian Streams Cooperative Research Centre for Catchment Hydrology, LWRRDC, Canberra 2000. • Storage and use of fuels will be managed appropriately in accordance with relevant standards. • Chemicals and construction materials will be stored appropriately in designated/bunded areas. • Waste management plans will be developed and implemented for the control and storage of waste at work sites. • Operations at work sites will be reviewed and audited to ensure management measures are being implemented accordingly. • Laydown areas and equipment compounds will be located away from flood prone area.

Table D.2 Summary of commitments – pipeline development

Aspect	Measures
	<ul style="list-style-type: none"> When flood risk is notified, active work sites will be secured, and personnel moved off site.
	<i>Operation</i>
	<ul style="list-style-type: none"> During pipeline maintenance, process water removed from the pipeline via valves will not be discharged to rivers or creeks. It is anticipated that process water held in the pipeline sections that require maintenance will be removed via tanker trucks and taken either to the mine project area, an appropriately licensed wastewater treatment facility, or pumped to the nearest pumping station or the next appropriate pipeline section. Monitoring of pipeline flows and operation of isolation valves will reduce the magnitude of water released to the environment in the event of a pipeline leak. Monitoring of geomorphic aspects of the pipeline watercourse crossings will focus on significant storm runoff events. An inspection will be undertaken of a random sample of crossings of first and second order streams, and all third and higher order streams, as soon as possible following a 20% annual exceedance probability regional storm event. Inspection of watercourse crossings will be incorporated in the routine pipeline inspection and maintenance procedures developed for the operational phase.
Noise and vibration	<ul style="list-style-type: none"> Prior to commencement of construction activities, appropriate communications will be undertaken to notify the potentially impacted residences of the project (duration, types of works, etc) and provide relevant contact details for environmental complaints reporting. Communication protocols will be outlined in the CEMP. Noise and vibration mitigation measures will be implemented as outlined in the CEMP for the pipeline development, including consideration of measures outlined in Australian Standard AS 2436-2010 (R2016) <i>Guide to Noise Control on Construction, Maintenance and Demolition Sites</i>. The CEMP will also outline noise and vibration monitoring to be conducted during construction. Construction activities will meet construction noise management levels within the allowable hours of operation as far as practicable, as outlined in the revised NVIA for the pipeline development (MAC 2020b); Where feasible, construction activities will be avoided adjacent to residential receivers between 6pm to 7am (especially vegetation clearing and rock breaking). Where noise levels are above relevant noise management levels, reasonable and feasible best practice noise controls will be implemented to minimise noise emissions and/or exposure duration at affected receivers. Where the use of best practice noise controls does not adequately address exceedance of noise management levels, alternative measures will be adopted to minimise impacts on the community.
Air quality	<ul style="list-style-type: none"> Prior to commencement of construction activities, appropriate communications will be undertaken to notify the potentially impacted residences of the project (duration, types of works, etc) and provide relevant contact details for environmental complaints reporting. Air quality mitigation measures will be implemented as outlined in the CEMP for the pipeline development, including a complaints handling and incident notification procedure. Regular site inspections will be conducted, with inspection results recorded. Site fencing and barriers will be kept reasonably clean using wet methods. A maximum-speed-limit of 20 km/h will be imposed in the vicinity of work areas. Vehicles entering and leaving site will have loads covered to prevent escape of materials during transport; Plant and equipment engines will be maintained. An adequate water supply on the construction site will be maintained for effective dust/particulate matter suppression/mitigation. Drop heights from loading or handling equipment will be minimised as much as practicable. Vegetation/ground cover will only be removed in small areas during work, as practicable.
Greenhouse gas	<p>The following measures will minimise the GHG emissions from the pipeline development:</p> <ul style="list-style-type: none"> routine maintenance of equipment fleet to ensure optimal engine operation; minimise engine idling wherever practical; and

Table D.2 Summary of commitments – pipeline development

Aspect	Measures
	<ul style="list-style-type: none"> • use of alternative energy sources where feasible, such as onsite solar power.
Aboriginal heritage	<ul style="list-style-type: none"> • The seven sites (AHIMS #44-3-0222, #44-3-0223, #44-3-0224, #44-3-0225, #44-3-0228, #44-3-0229 and #45-1-2548) which will be directly impacted in the pipeline corridor will be salvaged through the recording and collection of surface artefacts. If the southern pipeline route option is constructed, site IF-01 will also be salvaged. Artefacts will be stored in accordance with the procedures outlined in the Aboriginal cultural heritage management plan. • Direct disturbance of site AHIMS #44-2-0296 would be avoided by the northern pipeline route, with an exclusion zone established around the site through the implementation of appropriate fencing. • Salvaging, including the recording and collection of the surface artefacts, will be done in consultation with the RAPs. • Due to the proximity to the pipeline corridor, temporary buffers will be erected using high visibility ground markers around the three sites outside of the corridor prior to and during construction works to prevent inadvertent disturbance, except for CS SU4-A2 as the site is already permanently fenced. • An Aboriginal cultural heritage management plan will be prepared in consultation with the RAP's and Heritage NSW, which would include an unanticipated discovery protocol for any previously unidentified items/areas of potential Aboriginal archaeological significance, including skeletal remains. • Forestry NSW will be notified of the management and final artefact location of Aboriginal heritage site within forestry lands.
Historical heritage	<ul style="list-style-type: none"> • The Leeholme Homestead and outbuildings and the Portland General Cemetery will be indicated as 'no-go zones' on the construction management plans and all contractors made aware of the two locations in <i>McPhillamys ACHAR</i> (see Figure 13-1 and Figure 13-2 in Appendix P of the 2020 Amendment Report). • An unanticipated finds protocol will be developed to manage potential unanticipated historic heritage finds during construction works. <p>If the northern pipeline option is constructed, the following measure will be included in the CEMP:</p> <ul style="list-style-type: none"> • A no-go zone will be established around the curtilages of Bathampton Homestead (item I6 under the Bathurst LEP) and Binalong (item I129 under the Bathurst LEP) to avoid impact from construction of the northern pipeline option.
Traffic	<ul style="list-style-type: none"> • A CTMP, including a Driver Code of Conduct, will be prepared as part of the CEMP for the pipeline, in consultation with relevant councils and TfNSW. The plan(s) will include (but not be limited to): <ul style="list-style-type: none"> – heavy vehicle transport procedures in compliance with the requirements of the National Heavy Vehicle Regulator (NHVR) and codes for transport of hazardous materials; – details of origin, destination, quantity, size and frequency of heavy vehicles movements including water cart movements and OSOM truck loads associated with the development and any special measures required accommodating these; – procedures for the transportation of fill (if required); – mitigation measures to negate possible impacts of queuing as a result of activities such as concrete pours, in particular on public roads and where any rail crossings are located; – measures to restrict the movement of traffic associated with the construction of the pipeline to operate on public roads during daylight hours only as much as possible; – complaints handling procedures; – the requirement for truckloads to be covered at all times when being transported; – scheduling of heavy vehicle movements to occur outside of commuter peak periods, outside of school bus pick up and drop off locations is to be avoided, to avoid local events, and to minimise convoy or platoon lengths; – procedures for heavy vehicle movements to mitigate the effects of local climatic conditions during all phases of the project (eg dust, heavy fog, wet weather, ice or snow); – measures to ensure responsible fatigue management and safe driving behaviours; – rail safety procedure for access to pumping station facility No.3; and – traffic control and construction access along the northern option Mid Western Highway route (if the northern option is constructed).

Table D.2 **Summary of commitments – pipeline development**

Aspect	Measures
Social	<ul style="list-style-type: none"> • A Landholder Communication Plan will be developed as part of the Property Management Plan for each property directly impacted by the pipeline development to ensure adequate notification of the construction phase is provided to all directly affected landowners. • A formal complaints procedure will be included in the CEMP for the pipeline development and the OEMP for the overall project. • A Construction Workforce Accommodation Strategy will be prepared in consultation with key stakeholders. The strategy will: <ul style="list-style-type: none"> – demonstrate how the construction phase workforce will be accommodated across the local area; – demonstrate how workforce accommodation requirements will be managed during periods of high demand, such as during key regional events including Bathurst 1000; – document the approach to informing accommodation providers of predicted pipeline development workforce accommodation demands including anticipated timing; – enable the coordinated placement of the workforce in tourism accommodation throughout the local area; and – include a Local Content Plan to provide a detailed analysis of identified existing local enterprise and the skills / education base of local residents. Wherever possible, the pipeline development supply and workforce requirements will then be 'matched' with existing capabilities in the local community.
Hazard	<ul style="list-style-type: none"> • Regis will consult with FCNSW during the preparation of the pipeline development CEMP with regard to bushfire management.