



# Management and Monitoring Summary

**Table 1**  
**Revised Project Management and Monitoring Measures**

Ref	Commitment
<b>Mining Operations</b>	
1	Prior to carrying out any development that requires a licence or approval listed in Table 12 of the EIS, KEPCO will ensure that all such approvals and licences are obtained.
2	<p>An EMS will be developed in consultation with the relevant regulators and to the satisfaction of the Secretary of DP&amp;E. The EMS may be developed in stages and will indicatively include the following:</p> <ul style="list-style-type: none"> <li>• Construction Environmental Management Plan;</li> <li>• Construction Traffic Management Plan;</li> <li>• Extraction Plans, including Property Subsidence Management Plans;</li> <li>• Biodiversity Management Plan;</li> <li>• Biodiversity Offsets Management Plan;</li> <li>• Water Management Plan (including Erosion and Sediment Control Management Plan);</li> <li>• Air Quality Management Plan;</li> <li>• Energy and Greenhouse Gas Management Plan;</li> <li>• Noise Management Plan;</li> <li>• Blast Management Plan;</li> <li>• Aboriginal Archaeology and Cultural Heritage Management Plan (AACHMP);</li> <li>• Historic Heritage Management Plan;</li> <li>• Burials Management Plan;</li> <li>• Rehabilitation Strategy;</li> <li>• Rehabilitation Management Plan incorporating Soil Resource Management Plan;</li> <li>• Farm Management Plan;</li> <li>• Mining Waste Management Plan (including Spontaneous Combustion Monitoring and Management);</li> <li>• Social Impact Management Plan;</li> <li>• Hazard Management Plan;</li> <li>• Bushfire Management Plan;</li> <li>• Waste Management Plan; and</li> <li>• Landscape Management Plan.</li> </ul> <p><i>The EMS documentation as described in the above list may be added to, amended and/or altered during the life of the Project in consultation with the relevant authorities.</i></p>
<b>Ecology</b>	
3	The Biodiversity Offset Strategy outlined in the EIS will be implemented for the purposes of maintaining and ultimately improving the ecological values of the region.

Ref	Commitment
4	In accordance with the Biodiversity Management Plan, the mitigation and management measures as outlined in the EIS will be implemented, including:
	<ul style="list-style-type: none"> <li>Dust minimisation to reduce the indirect impacts on vegetation condition and the habitat quality for all native species;</li> </ul>
	<ul style="list-style-type: none"> <li>Noise (and blasting) minimisation to reduce the potential for disturbance of animals in habitat patches around the Project;</li> </ul>
	<ul style="list-style-type: none"> <li>Visual and lighting management to reduce the potential for disturbance of nocturnal animals via night light emissions around the Project;</li> </ul>
	<ul style="list-style-type: none"> <li>A Land Disturbance Protocol which will include pre-clearing monitoring and/or survey for proposed disturbance areas to limit vegetation and habitat loss as far as practical and ensure safe removal of fauna as required prior to any disturbance occurring;</li> </ul>
	<ul style="list-style-type: none"> <li>Removal (and relocation where practicable) of key habitat features such as tree hollows from the Project Disturbance Boundary;</li> </ul>
	<ul style="list-style-type: none"> <li>Aquatic mitigation measures relating to ground movements and management of surface water, erosion and sedimentation; and</li> </ul>
	<ul style="list-style-type: none"> <li>Provisions to undertake searches for potential roost sites at prominent cliffs within and adjacent to the Subsidence Study Area (C5, C6, C8 &amp; C9 (in conjunction with the monitoring of cave dwelling microbats)).</li> </ul>
<b>Water</b>	
5	Regular monitoring and/or inspections of the site water management system will be undertaken, in particular, sediment control infrastructure following more than 25 mm of rainfall in 24 hours.
6	Daily rainfall and dam volumes will be recorded at site to assist in managing significant rainfall events and the subsequent planning thereof.
7	Regular visual inspections and comparative ground level surveys will be undertaken during the period of underground mining beneath the catchment to identify changes in surface levels and erosion within Dry Creek and its tributaries.
	Targeted management actions will be developed to respond to observed impacts and minimise surface disturbance within Dry Creek and its tributaries. Potential mitigation and remediation measures could include:
	<ul style="list-style-type: none"> <li>Sealing of any observable bed cracking along watercourses by filling and compaction with suitable material followed by revegetation;</li> </ul>
	<ul style="list-style-type: none"> <li>Draining of any new ponded areas caused by subsidence to minimise additional water capture if required; and</li> </ul>
8	<ul style="list-style-type: none"> <li>Implementation of in-stream bed controls, such as rock rip-rap or large woody debris, in locations where increased bed gradients result in observable change in geomorphic characteristics.</li> </ul>
	Revegetation of areas of the Dry Creek riparian corridor affected by subsidence related impacts will be undertaken in consultation with the Hunter Local Land Services, with a focus on rehabilitation of the stream bed and embankments to a condition equivalent to or better than existing using soft engineering techniques where possible.

Ref	Commitment
9	Haul road crossings and the overland conveyor embankment will be designed in consideration of minimising the predicted flooding impacts.
10	Mitigation works within the Dry Creek tributary where identified as required, will be undertaken prior to subsiding the relevant section of the landform to reduce the potential for breakouts of flow from the current flow path.
12	Yearly performance audits of the groundwater monitoring network will be conducted as part of the Annual Review.
13	Additional testing programs will be undertaken on the alluvial aquifer prior to the construction of the Project borefield to determine an optimal design that will minimise impacts on the aquifers and streams. This testing program will likely include test pumping bores and modelling to optimise the bore locations.
14	Bore location and number will be determined in consultation with DPI-Water and to the satisfaction of DP&E to ensure any additional bores (to those proposed in the supplementary RTS) are sited and designed in accordance with the Hunter Unregulated and Alluvial WSP and to avoid impact to neighbouring private landholders.
15	KEPCO will consult with EPA and DPI-Water during the mine closure planning phase to determine the licencing requirements for the pumping of surplus mine water to the underground mine workings.
<b>Water (Erosion and Sediment Control)</b>	
16	The Erosion and Sediment Control Plan will incorporate control measures to separate runoff from disturbed and undisturbed areas and to treat runoff from disturbed areas.
17	The rehabilitated OEA will include the relevant sediment and erosion controls to maintain the water quality of the existing environment.
<b>Air Quality and Greenhouse Gas</b>	
18	As part of the Construction Environmental Management Plan, a number of measures will be adopted to manage its activities to minimise dust emissions during the construction phase, including (but not limited to):
	<ul style="list-style-type: none"> <li>The modification of working practices to limit excavation during periods of high winds, as required;</li> </ul>
	<ul style="list-style-type: none"> <li>Limiting the extent of clearing of vegetation and topsoil to the designated footprint required for construction activities and to stage any clearing to minimise the total exposed area at any one time, where possible;</li> </ul>
	<ul style="list-style-type: none"> <li>Progressive rehabilitation of any exposed areas no longer required following the completion of construction works;</li> </ul>
	<ul style="list-style-type: none"> <li>Use of water carts on exposed surfaces and haulage routes, particularly during unfavourable weather conditions;</li> </ul>
	<ul style="list-style-type: none"> <li>Operation of equipment on designated areas and routes only, with speed limits enforced as necessary to reduce road generated dust emissions; and</li> </ul>
	<ul style="list-style-type: none"> <li>Clearing of dirt / dust tracked onto sealed roads / surfaces as soon as practicable.</li> </ul>

Ref	Commitment
19	In accordance with the AQMP, the following air quality controls or similar controls will be implemented:
	<ul style="list-style-type: none"> <li>• Use of speed control signage, water carts and/or suppressants to control emissions from haul roads and other trafficked areas;</li> </ul>
	<ul style="list-style-type: none"> <li>• Adoption of the largest truck size practicable within the constraints of the active mining areas of the conceptual mine plans;</li> </ul>
	<ul style="list-style-type: none"> <li>• Minimisation, to the extent practicable, of the drop heights from equipment associated with loading and dumping operations for coal and overburden;</li> </ul>
	<ul style="list-style-type: none"> <li>• Minimisation of areas disturbed at any one time, with progressive rehabilitation (and temporary rehabilitation) undertaken following the completion of mining to reduce total exposed areas;</li> </ul>
	<ul style="list-style-type: none"> <li>• Modification / cessation of mining operations in areas of the site during adverse / unfavourable weather conditions where visible dust is leaving the site;</li> </ul>
	<ul style="list-style-type: none"> <li>• Delay of blasts in unfavourable weather conditions to avoid potential for elevated noise, dust and blast fume emissions;</li> </ul>
	<ul style="list-style-type: none"> <li>• Enclosure of conveyors and transfers points, where operationally practicable and safe to do so;</li> </ul>
	<ul style="list-style-type: none"> <li>• Use of water sprays / injection during drilling activities;</li> </ul>
	<ul style="list-style-type: none"> <li>• Use of water sprays on coal stockpiles;</li> </ul>
	<ul style="list-style-type: none"> <li>• Design and construction of a partially enclosed ROM coal system;</li> </ul>
	<ul style="list-style-type: none"> <li>• Profiling and orientation of coal stockpiles along prevailing wind axis; and</li> </ul>
	<ul style="list-style-type: none"> <li>• Profiling of train loading and water sprays to minimise dust emissions.</li> </ul>
20	All mining-related equipment on site will be maintained and operated in a proper and efficient manner to ensure that diesel emissions from the Project are minimised.
21	The existing monitoring network will be reviewed and updated to facilitate determination of compliance with relevant air quality criteria at representative private receivers.
22	The following measures will be incorporated into the Blast Management Plan to minimise or avoid imperfect blasts in accordance with <i>Code of Good Practice: Prevention and Management of Blast Generated NOx Gases in Surface Blasting</i> (AEISG, 2011):
	<ul style="list-style-type: none"> <li>• Formulation of appropriate explosive products to reduce the likelihood of fumes;</li> </ul>
	<ul style="list-style-type: none"> <li>• Reviewing geological conditions in the development of blast designs;</li> </ul>
	<ul style="list-style-type: none"> <li>• Reviewing ground conditions (e.g. presence of clay or loose / broken ground);</li> </ul>
	<ul style="list-style-type: none"> <li>• Minimising the time between drilling and loading, and loading and shooting of the blast; and</li> </ul>
	<ul style="list-style-type: none"> <li>• Reviewing forecast meteorological conditions during blast planning, to avoid blasting in unfavourable conditions, where practical.</li> </ul>

Ref	Commitment
23	Where considered feasible and practicable, the following greenhouse gas mitigation strategies will be implemented:
	<ul style="list-style-type: none"> <li>Consideration of energy efficiency in the mine planning process (i.e. minimising haul distances, fuel usage);</li> </ul>
	<ul style="list-style-type: none"> <li>Investigation of options for capture and treatment of fugitive methane emissions from underground mine ventilation;</li> </ul>
	<ul style="list-style-type: none"> <li>Sealing of underground mining panels to reduce methane emissions from the goaf;</li> </ul>
	<ul style="list-style-type: none"> <li>Use of ventilation control devices in sections of the mine not in active use enabling them not to be ventilated (unless required for safety purposes), thereby reducing fugitive emissions;</li> </ul>
	<ul style="list-style-type: none"> <li>Use of real-time gas (methane and carbon dioxide), temperature, pressure and associated volumetric flow monitoring at the ventilation shaft site to allow accurate measurement of ventilation (including methane and carbon dioxide) emissions, which will then allow further feasibility assessment of potential reuse options;</li> </ul>
	<ul style="list-style-type: none"> <li>Ensure maintenance, calibration and record keeping is undertaken on the main ventilation shaft and fans to allow for the calculation of greenhouse gas emissions; and</li> </ul>
	<ul style="list-style-type: none"> <li>Maintain records for monthly electricity and diesel use and monthly ROM coal production to allow for the calculation of greenhouse gas emissions.</li> </ul>
<b>Noise</b>	
24	The following noise controls will be implemented to the Project:
	<ul style="list-style-type: none"> <li>Fitting fixed and mobile plant with noise attenuation and suppression to achieve the sound power levels as identified within the EIS;</li> </ul>
	<ul style="list-style-type: none"> <li>Periodic noise monitoring to ensure that mobile plant continues to operate at the specified and modelled sound power levels;</li> </ul>
	<ul style="list-style-type: none"> <li>Regular maintenance of plant and equipment as required to ensure noise controls are working effectively;</li> </ul>
	<ul style="list-style-type: none"> <li>Operational responses to limit noise generating activities in potentially sensitive areas or under adverse weather conditions, particularly for the NW OEA during PY 3;</li> </ul>
	<ul style="list-style-type: none"> <li>Education of staff and contractors with regard to noise management as part of training and induction programs. This will include training in good practice protocols identified for the operation of machinery to minimise potential noise sources, including: <ul style="list-style-type: none"> <li>Haul trucks;</li> <li>Dozers;</li> <li>Extraction of waste and coal from open cut mining areas;</li> <li>OEA's;</li> <li>Operation of the CHPP, conveyors, rail loader, stockpiles, ROM pad and crusher; and</li> <li>Operation of trains on the rail loop.</li> </ul> </li> </ul>

Ref	Commitment
	<ul style="list-style-type: none"> <li>Operational planning to take into account potential for adverse noise impacts under certain meteorological conditions.</li> </ul>
25	Consult with ARTC in regard to the proposed rail movements for the Project, the status of their Pollution Reduction Program and the implementation of leading practice noise control measures.
26	<p>A real time noise monitoring network will be developed to be representative of the closest private receivers, and will include:</p> <ul style="list-style-type: none"> <li>A weather prediction system to identify potentially noise enhancing weather conditions up to 24 hours in advance;</li> <li>A noise prediction system informed by a weather prediction system to provide advanced warning of enhancing conditions to allow operational responses to be put in place;</li> <li>Real time noise monitors representative of private receivers will be put in place to enable ongoing noise management. Data from the real time noise monitors will be transmitted to an onsite office or control room for use as a noise management tool;</li> <li>A Trigger Action Response Plan will also be developed and implemented as part of the noise monitoring program to allow the proactive management of noise impacts and guide any actions required to minimise Project noise. Such responses may include modifying or ceasing operations under certain conditions or times of the day, or preferentially using equipment in specific areas; and</li> <li>Quarterly attended noise monitoring will occur at a minimum of four locations during normal mining operations to confirm Project noise levels. Monitoring locations may vary from time to time depending on operations and mine progression in consultation with relevant regulators. <ul style="list-style-type: none"> <li>Noise surveys will include two non-consecutive 15 minute noise measurements, and associated observations to identify and quantify dominant sources of noise during the day, evening and night at each location; and</li> <li>Results from real time noise monitoring and quarterly noise surveys will be reported annually in the Annual Review.</li> </ul> </li> </ul>
<b>Aboriginal and Cultural Heritage</b>	
27	<p>An AACHMP will be developed in consultation with RAPs (including Warrabinga Wiradjuri #4 Native Title Claimants), OEH and DP&amp;E, and to the satisfaction of the Secretary of DP&amp;E. The AACHMP will include:</p> <ul style="list-style-type: none"> <li>Detailed pre-mining and post-mining mitigation strategies for all Aboriginal archaeological sites and cultural features;</li> <li>A staged Aboriginal heritage clearance process for all areas to be disturbed;</li> <li>Identification of the storage location (keeping place) and procedure for the care of salvaged artefacts in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010);</li> <li>A program of subsurface test excavation and salvage excavation will be undertaken for select sites to obtain a more detailed understanding of the nature and extent of Aboriginal archaeology within the Study Area. The program will include a detailed geomorphological</li> </ul>

Ref	Commitment
	assessment, followed by test excavation and salvage excavation and will be completed in consultation with the RAPs;
	<ul style="list-style-type: none"> <li>Conservation and management will be undertaken for all archaeological sites within the Project Boundary that are not impacted by the Project. These sites will be identified on onsite plans to avoid accidental disturbance and included in the AACHMP. Where mining activities will occur in close proximity to these sites, fencing will be erected;</li> </ul>
	<ul style="list-style-type: none"> <li>Undertake archaeological assessments of select biodiversity offset areas for the Bylong Coal Project. Methodology of assessment will be undertaken in accordance with OEH relevant Guidelines and advice; and</li> </ul>
	<ul style="list-style-type: none"> <li>Undertake a regional rock art study that includes all recommendations of the Gunn Assessment Report (2016) and that provides opportunities for Aboriginal people to develop informed views on contemporary cultural significance. Methodology of this study will be undertaken in accordance with OEH Guidelines and advice.</li> </ul>
<b>Historic Heritage</b>	
28	Historic heritage items will be managed in accordance with a Historic Heritage Management Plan developed in consultation with OEH which will include:
	<ul style="list-style-type: none"> <li>A list and map indicating the location of historic heritage sites identified within the Project Boundary;</li> </ul>
	<ul style="list-style-type: none"> <li>A significance assessment and Statement of Significance for each historic heritage site and further mitigation and management practices;</li> </ul>
	<ul style="list-style-type: none"> <li>Procedures for archival recording of impacted heritage items in accordance with NSW Heritage Office's Guidelines: How to Prepare Archival Records of Heritage Items (1998) and Photographic Recording of Heritage Items using Film or Digital Capture (2006);</li> </ul>
	<ul style="list-style-type: none"> <li>Details and procedures, including research design, for carrying out test and salvage excavations (if required) for the Cheese Factory Remains; and</li> </ul>
	<ul style="list-style-type: none"> <li>Unexpected finds procedure, including a specific procedure for human remains.</li> </ul>
29	Tarwyn park will remain accessible during the life of the Project.
30	Following mine closure, driveway access and row of driveway trees will be reinstated on a similar alignment to that which presently exists.
31	KEPCO will continue to investigate the establishment of the Tarwyn Park Collaborative Research and Education Centre.
<b>Historic Burials</b>	
32	To complete the archaeological investigations and exhumations of the burials located within the former Catholic Cemetery and then the reburial of the remains at an appropriate alternative location(s) in accordance with the relevant regulations, guidelines and policies in place at any such location(s), the following will continue to be undertaken:
	<ul style="list-style-type: none"> <li>Seek all relevant approvals for the exhumation and reburial of remains and re-erection of the grave markers. Stakeholders in the exhumation and relocation process may include:</li> </ul>

Ref	Commitment
	<ul style="list-style-type: none"> <li>o KEPCO;</li> </ul>
	<ul style="list-style-type: none"> <li>o Relatives and descendants;</li> </ul>
	<ul style="list-style-type: none"> <li>o Community members;</li> </ul>
	<ul style="list-style-type: none"> <li>o The trustees of the Bathurst Diocese of the Catholic Church and possibly other denominations; and</li> </ul>
	<ul style="list-style-type: none"> <li>o Relevant consent and approval authorities, being the DP&amp;E, NSW OEH Heritage Division, the Department of Health and MWRC.</li> </ul>
	<ul style="list-style-type: none"> <li>• Complete a Burials Management Plan to outline the process for obtaining all relevant approvals, procedures and reporting relevant to the exhumation and reburial of the remains. The Burials Management Plan will detail the following:</li> </ul>
	<ul style="list-style-type: none"> <li>o Applications for Exhumation for each burial recorded in the former Catholic Church Cemetery, signed by the appropriate person in accordance with the provisions of the <i>Public Health Regulation 2012</i>;</li> </ul>
	<ul style="list-style-type: none"> <li>o Community liaison plans and procedures;</li> </ul>
	<ul style="list-style-type: none"> <li>o Procedures for the exhumation, relocation and reburial;</li> </ul>
	<ul style="list-style-type: none"> <li>o Location and requirements for forensic analysis and storage of skeletal material, prior to reburial;</li> </ul>
	<ul style="list-style-type: none"> <li>o Procedure for the accidental discovery of human remains;</li> </ul>
	<ul style="list-style-type: none"> <li>o Recommendations for selecting suitable locations for the reburials; and</li> </ul>
	<ul style="list-style-type: none"> <li>o Appendices including procedures for archaeological investigation and forensic analysis and conditions for approval for exhumation, under the <i>Public Health Regulation 2012</i>.</li> </ul>
<b>Soil and Land Capability</b>	
33	A Soil Resource Management Plan will be prepared to guide the implementations of the following measures:
	<ul style="list-style-type: none"> <li>• Soil material will be stripped to the depths provided in Appendix V, subject to ongoing inspections;</li> </ul>
	<ul style="list-style-type: none"> <li>• Soil will be maintained in a slightly moist condition during stripping. Soil Material will not be stripped in either excessively dry or wet conditions;</li> </ul>
	<ul style="list-style-type: none"> <li>• Place stripped material directly onto area to be rehabilitated and spread immediately (if mining sequences, equipment scheduling and weather conditions permit) to avoid the requirement for stockpiling;</li> </ul>
	<ul style="list-style-type: none"> <li>• Soil will be graded or pushed into windrows with graders or dozers for later collection by open bowl scrapers or for loading into rear dump trucks by front-end loaders. This will minimise compaction effects of the heavy equipment that is often necessary for economical transport of soil material. These techniques are examples of preferential less aggressive soil handling systems;</li> </ul>
	<ul style="list-style-type: none"> <li>• Soil transported by dump trucks may be placed directly into storage. Soil transported by scrapers is best pushed to form stockpiles by other equipment (e.g. dozer) to avoid tracking over previously laid soil;</li> </ul>

Ref	Commitment
	<ul style="list-style-type: none"> <li>The surface of soil stockpiles should be left in as coarsely structured condition as possible in order to promote infiltration and minimise erosion until vegetation is established, and to prevent anaerobic zones forming;</li> <li>As a general rule, to the extent practicable, maintain a maximum stockpile height of 3 m for subsoil (or 2 m for topsoils). Clay soils should be stored in lower stockpiles for shorter periods of time compared to coarser textured sandy soils;</li> <li>If long-term stockpiling is planned (i.e. greater than 12 months), topsoil stockpiles will be seeded and fertilised as soon as possible. An annual cover crop species that produce sterile florets or seeds (e.g. oats) will be sown;</li> <li>An inventory of available soil resources will be maintained to ensure adequate topsoil and subsoil materials are available for planned rehabilitation activities;</li> <li>Subsoil and topdressing materials will be spread to depths dependent on target land capability and as stated in Section 7.15 of the EIS; and</li> <li>Where possible, suitable subsoil/topsoil will be re-spread directly onto reshaped areas. Topsoil will be spread, treated with fertiliser and seeded in one consecutive operation, to reduce the potential for topsoil loss to wind and water erosion.</li> </ul>
<b>Rehabilitation</b>	
34	<p>The Rehabilitation Strategy will endeavour to:</p> <ul style="list-style-type: none"> <li>Rehabilitate all mined areas and implement best industry standard soil management measures to minimise degradation of soil reserved for rehabilitation;</li> <li>Manage soil resources in accordance with the Rehabilitation Management Plan;</li> <li>Reinstate BSAL to be directly and permanently impacted;</li> <li>Conduct the required rehabilitation and weed/ feral animal management to ensure compliance with the preliminary rehabilitation criteria; and</li> <li>Conduct the rehabilitation monitoring as specified in Section 7.15 of the EIS.</li> </ul>
35	KEPCO will record the original soil type stripped and used in the rehabilitation of BSAL to demonstrate the original inherent fertility ranking of the proposed BSAL material used on rehabilitated mining landforms.
36	KEPCO will contribute to and actively participate in research trials to improve mine site rehabilitation techniques and enhance performance outcomes.
37	KEPCO will seek to participate in the NSW Minerals Council's working group on rehabilitation.
38	KEPCO will progressively rehabilitate mined areas, with an emphasis on re-establishing existing land uses.
<b>Agriculture</b>	
39	Upon final rehabilitation, the land will be available for any future equine endeavours, should the equine industry expand into the Bylong Valley post mine closure.

Ref	Commitment
40	A Farm Management Plan will be developed to manage activities on KEPCO owned land and will include (at least) the following measures:
	<ul style="list-style-type: none"> <li>A weed and pest management plan to control the distribution of invasive species and feral animals over all KEPCO owned land;</li> </ul>
	<ul style="list-style-type: none"> <li>Minimise the time that disturbed areas are removed from agricultural production by progressively rehabilitating disturbed areas as soon as practicable;</li> </ul>
	<ul style="list-style-type: none"> <li>Implement sustainable farming practices and management of land situated outside the Project Disturbance Boundary and Biodiversity Offset Areas on all KEPCO owned agricultural land;</li> </ul>
	<ul style="list-style-type: none"> <li>Continued appointment of a Farm Manager to ensure the long term productivity of KEPCO owned agricultural lands;</li> </ul>
	<ul style="list-style-type: none"> <li>Expand existing environmental monitoring network within the Project Boundary and in the locality to facilitate the prevention of unforeseen environmental impacts that may deleteriously affect agricultural activities adjacent to the Project Boundary;</li> </ul>
	<ul style="list-style-type: none"> <li>Detail appropriate sustainable farming and rotational grazing practices;</li> </ul>
	<ul style="list-style-type: none"> <li>Estimate pasture coverage and grazing records to enable pasture consumption to be calculated and recorded;</li> </ul>
	<ul style="list-style-type: none"> <li>Monitor livestock weight to assist animal performance; and</li> </ul>
	<ul style="list-style-type: none"> <li>Compare results against production records from nominated reference sites during mining and rehabilitation.</li> </ul>
41	A Monitoring Program to monitor pasture production on rehabilitated lands will be incorporated in the FMP (in consultation with DPI Agriculture) and will be evaluated by a suitably qualified person against:
	<ul style="list-style-type: none"> <li>Appropriateness of rehabilitation and pasture production techniques;</li> </ul>
	<ul style="list-style-type: none"> <li>Comparative performance of rehabilitation sites and reference sites;</li> </ul>
	<ul style="list-style-type: none"> <li>New techniques of monitoring; and</li> </ul>
	<ul style="list-style-type: none"> <li>Improved agronomic and grazing management knowledge, techniques and technologies.</li> </ul>
<b>Transport and Traffic</b>	
42	KEPCO will honour and maintain the agreed contributions to road maintenance and road safety upgrades on the regional road network within the MWRC LGA.
43	In accordance with the Construction Traffic Management Plan, KEPCO will aim to safely and efficiently manage traffic throughout the construction phases of the Project in accordance with the Roads and Traffic Authority's Traffic Control at Work Sites (2010), or its latest version as well as relevant Australian Standards including AS1742.
44	KEPCO will continue to consult with MWRC, RMS and other local authorities as necessary prior to the movement of oversize loads on public roads.

Ref	Commitment
45	Conduct road safety audits and dilapidation inspections of the regional road network prior to the commencement of construction activities.
46	Consult with MWRC, MSC, UHSC, the RMS and other relevant agencies to determine the preferred route for the transport of dangerous goods.
47	KEPCO will require the drivers of oversize or overmass Heavy Vehicles travelling from the east to utilise the Golden Highway route. Journey Management Plans will be prepared by drivers to ensure compliance with this commitment.
48	KEPCO is committed to the following items in relation to contributions to MSC:
	<ul style="list-style-type: none"> <li>Road dilapidation inspections to be conducted prior to the commencement of construction activities and at the end of Project Year (PY) 2 of construction;</li> </ul>
	<ul style="list-style-type: none"> <li>A 'payment for damage' contribution to MSC based on the results of the 'before' and 'after' dilapidation inspections and determination of the level attributed to Project traffic;</li> </ul>
	<ul style="list-style-type: none"> <li>Monitoring and reporting on Project-related traffic distributions on the regional road network at key stages throughout the life of the Project to verify the assumptions utilised within the revised TTIA.</li> </ul>
49	<ul style="list-style-type: none"> <li>KEPCO will investigate the provision of a bus service between Mudgee and the Project at shift change over, subject to demand.</li> </ul>
<b>Geochemical</b>	
50	A Mine Waste Management Plan will be prepared consistent with the recommendations from the Geochemical Impact Assessment (Appendix AB of the EIS). This includes:
	<ul style="list-style-type: none"> <li>Confirmation of the occurrence and distribution of any PAF material via a sulphur grid / layered geological model with updated exploration data;</li> </ul>
	<ul style="list-style-type: none"> <li>The requirement to pre-strip topsoil from areas to be disturbed and then utilise this in the final rehabilitation activities to limit the risk of dispersion and erosion of potentially sodic overburden;</li> </ul>
	<ul style="list-style-type: none"> <li>Selective handling and capping of PAF materials with NAF materials;</li> </ul>
	<ul style="list-style-type: none"> <li>Additional overburden testing as mining progresses to ensure the most appropriate rehabilitation options are considered during mine closure;</li> </ul>
	<ul style="list-style-type: none"> <li>Treatment of potential acid water in underground workings or in the open cut workings (if required) (e.g. mobile lime dosing plant or the broadcast application of agricultural lime);</li> </ul>
	<ul style="list-style-type: none"> <li>Ongoing testing to confirm spontaneous combustion propensity of selected mine materials as they are generated to be detailed in a Spontaneous Combustion Monitoring and Management Plan; and</li> </ul>
	<ul style="list-style-type: none"> <li>Monitoring of runoff and seepage from overburden, interburden and coal rejects on a regular basis during the operations phase of the Project to ensure key water quality parameters, are maintained within relevant criteria as forecast.</li> </ul>

Ref	Commitment
51	Undertake operational mining waste storage kinetic tests at the appropriate time, to complete a more valid comparison with relevant water quality guideline criteria and facilitate further assessment of any potential impacts on downstream biota during the operational phase of the Project.
<b>Contamination</b>	
52	The following preventative measures will be undertaken with regards to potential areas of contamination within land under KEPCO ownership:
	<ul style="list-style-type: none"> <li>Remove minor volumes of contaminated soil identified within the Study Area;</li> </ul>
	<ul style="list-style-type: none"> <li>Prior to undertaking any demolition or refurbishment of existing structures, complete a Hazardous Materials Survey to determine if asbestos is present and if so how this should be managed to prevent or minimise unacceptable risk to human health or the environment;</li> </ul>
	<ul style="list-style-type: none"> <li>Collect a set of soil samples from the existing rail corridor and analyse these for asbestos prior to works commencing which may disturb the existing ballast and ground surface;</li> </ul>
	<ul style="list-style-type: none"> <li>Remove batteries and general agricultural waste from the gully located within the proposed Administration, Amenities and Rail Loop area;</li> </ul>
	<ul style="list-style-type: none"> <li>Establish the necessary environmental safeguards and procedures to prevent or minimise unacceptable risk to human health and the environment prior to the completion of the above required remediation works; and</li> </ul>
53	<ul style="list-style-type: none"> <li>Establish operational policies and procedures for the storage, handling and transport of potentially contaminating materials required for the construction and operational phases of the Project.</li> </ul>
	<b>Hazards</b>
	The following hazard management measures will be undertaken:
	<ul style="list-style-type: none"> <li>Develop a Hazard Management Plan to support an application for a notification to WorkCover for the Project. This will outline procedures for the transport and storage of hazardous substances, management of storage locations for the Project and detailed response procedures should an event such as fire, explosion or spill occur;</li> </ul>
	<ul style="list-style-type: none"> <li>Maintain a database to assist in the recording and management of chemicals and other hazardous materials stored onsite. This chemical management system will contain a Material Safety Data Sheet for all chemicals used onsite;</li> </ul>
53	<ul style="list-style-type: none"> <li>Transportation of all hazardous materials associated with the Project by a licensed contractor in accordance with the relevant Australian Standards and legislation;</li> </ul>
	<ul style="list-style-type: none"> <li>Storage facilities, vehicles and transport vessels will be regularly inspected for leaks, spills and other damage or faults;</li> </ul>
	<ul style="list-style-type: none"> <li>All storage facilities for explosives, diesel, oil and other hazardous materials identified will be designed in accordance with applicable mandatory Australian Standards to minimise potential for any offsite impacts, toxic contamination of the surrounding area and minimise the severity of an incident in the case of fire, explosion or hazardous substance spills;</li> </ul>

Ref	Commitment
	<ul style="list-style-type: none"> <li>Explosive storage facilities will be located a minimum of 500 m from private roads, receivers or site facilities;</li> <li>Storage areas will be located at a sufficient distance from the Project Boundary to ensure there will be no offsite impacts; and</li> <li>All explosives will be stored in a purpose built magazine, built and maintained to appropriate standards.</li> </ul>
<b>Bushfire</b>	
54	In accordance with the Bushfire Management Plan, firebreaks, fuel reduction practices, firefighting access and sufficient water supply will be developed and maintained.
<b>Waste</b>	
55	<p>In accordance with the Waste Management Plan, the following will be implemented:</p> <ul style="list-style-type: none"> <li>Provide training to personnel to improve efficiency in the minimisation of waste streams, reuse and recycling options and management strategies for each major waste stream relevant to key work areas;</li> <li>Ensure an independent waste contractor working within the provisions of the POEO Act removes and reports on wastes; and</li> <li>Instigate regular inspections and monitoring by qualified personnel to ensure adequate maintenance and operation of the waste facilities and that management practices are sufficient to manage any waste products.</li> </ul>
<b>Stakeholder Consultation</b>	
56	A Stakeholder Engagement Plan will be developed prior to the commencement of the Final Social Impact Management Plan (SIMP). The Stakeholder Engagement Plan will document the suite of communication and engagement tools to be implemented for the development of the SIMP and include a consultation schedule.
57	Consult with DPI Lands in relation to the purchasing of Crown reserves, providing alternative access easements and landowner access agreements.
58	Consult with and provide required information to EPA during the application process for seeking an Environment Protection Licence in relation to effluent irrigation areas that may be identified during the detailed design of the Project.
59	Consult with NPWS in regard to ongoing access and ensure access is not prevented by the Project to the Goulburn and Wollemi National Parks.
60	<p>Consult with Forestry Corporation NSW (FCNSW) to provide appropriate access arrangements for the public to the Bylong State Forest via KEPCO owned land or alternative. Ensure public safety risks are appropriately managed to enable safe access to these areas, including:</p> <ul style="list-style-type: none"> <li>Appropriate notifications and consultation with the community;</li> <li>Erecting warning signs during active subsidence; and</li> <li>Undertaking repairs where required and as soon as practicable.</li> </ul>

Ref	Commitment
61	KEPCO will continue to liaise with FCNSW to agree on the appropriate methodology to be utilised to determine the quantifiable losses suffered by FCNSW in relation to any unrepairable damage to the productivity of the 'FCNSW's estate.
62	KEPCO will ensure that the subsidence related impacts that are not able to be safely remediated will not result in any ongoing material safety, environmental or operational liabilities for FCNSW post-mining.
<b>Subsidence</b>	
63	Minimise adverse subsidence impacts on Cliff 5 (C5) by potentially reducing the length of Longwall 106 as presented in the EIS (Figure 26) if required. This potential reduction in the length of Longwall 106 will be based on monitoring data obtained during the mining of the initial 5 longwalls which will be used to verify and refine the subsidence model and confirm the arrangements to minimise impacts on C5. This will be detailed within the Subsidence and Extraction Plan for Longwall 106.
<b>Biodiversity Offsets Strategy</b>	
64	KEPCO will continue to consult with OEH to ensure that the correct number and type of offset credits are required for the Project.
65	KEPCO will continue to consult with OEH to ensure that there is agreement on the method utilised for mapping Regent Honeyeater habitat within the Project Disturbance Boundary and offset areas according to the latest OEH Threatened Species Profile Database.
<b>Blasting</b>	
66	A Blast Management Protocol will be developed targeting, Tarwyn Park homestead, Tarwyn Park Stables, Harley Hill Cottage Remains and Swiss Cottage. The protocol will include:
	<ul style="list-style-type: none"> <li>A dilapidation assessment will be completed for each item prior to potential impact from vibration caused by construction or operation activities;</li> </ul>
	<ul style="list-style-type: none"> <li>During both construction and mining operations, all reasonable actions will be taken to manage the vibration impacts at each site so as to not exceed that predicted in the EIS Noise and Blasting Impact Assessment (Pacific Environment Limited 2015) when blasting in closest proximity assuming a MIC of 410 kg;</li> </ul>
	<ul style="list-style-type: none"> <li>At the site of each item identified above, where vibration will exceed 15 mm/s, an assessment will be undertaken by a suitably qualified structural engineer to determine whether, on the basis of the maximum predicted vibration, mitigation measures such as temporary bracing should be put in place to reduce any possibility of mine blast related damage. Further, a site specific monitoring program will be instigated to identify damage from mine blasting and appropriate remedial action is taken; and</li> </ul>
	<ul style="list-style-type: none"> <li>Once open cut mining operations have been completed, any damage identified from the monitoring program will be assessed and a targeted works program will be implemented with the aim of restoring the item to a structurally stable state similar to that of its pre-existing condition.</li> </ul>

Ref	Commitment
<b>Social</b>	
67	KEPCO is committed to being a good neighbour and acting in a socially responsible manner in the communities in which it operates.
68	KEPCO is committed to the management of potential social impacts associated with the Project and to creating long-term social and economic benefits to communities within the Bylong Valley and surrounding areas.
69	A SIMP will be developed and implemented in consultation with MWRC, the Community Consultative Committee and the local community of Bylong. The SIMP will include the following Action Plans:
	<ul style="list-style-type: none"> <li>Bylong Valley Action Plan;</li> </ul>
	<ul style="list-style-type: none"> <li>Housing and Accommodation Action Plan;</li> </ul>
	<ul style="list-style-type: none"> <li>Community Liveability, Health and Wellbeing Action Plan;</li> </ul>
	<ul style="list-style-type: none"> <li>Workforce Management Action Plan;</li> </ul>
	<ul style="list-style-type: none"> <li>Local Content and Economic Development Action Plan;</li> </ul>
	<ul style="list-style-type: none"> <li>Mine Closure Action Plan; and</li> <li>Social Investment Action Plan.</li> </ul>
70	KEPCO will implement the Community Investment Strategy to target initiatives which are focused on identified and verified community needs and/or developed in response to direct stakeholder requests.
71	KEPCO will continue to implement the current Local Content Policy for Project construction and operation to facilitate local business participation.
72	A Local Content Plan for Project construction and operation will be developed and include:
	<ul style="list-style-type: none"> <li>An assessment of local contractor capabilities;</li> </ul>
	<ul style="list-style-type: none"> <li>A detailed analysis of existing local enterprise and the skills / education base of local residents;</li> </ul>
	<ul style="list-style-type: none"> <li>Strategies to build local capacity where it is lacking through workforce recruitment; and</li> <li>Training models focused on local and regional communities.</li> </ul>
73	A Recruitment and Training Strategy will be developed and will consider a range of employment options to encourage a higher rate of local labour force participation. The strategy will include engagement with key training providers to further define and improve available training resources and capacity in the provision of apprenticeships, training programs and skill development opportunities.
74	A Workforce Accommodation Strategy will be developed, in consultation with MWRC and MRTI, that will:
	<ul style="list-style-type: none"> <li>Demonstrate how the Construction Phase 1 workforce will be accommodated across the Local Area;</li> </ul>

Ref	Commitment
	<ul style="list-style-type: none"> <li>Demonstrate how accommodation demand will be managed during periods of high demand e.g. during key regional events;</li> <li>Document the approach to informing regional accommodation providers of Project workforce accommodation demands including anticipated timing;</li> <li>Enable the coordinated placement of the workforce in tourism accommodation throughout the Local Area; and</li> <li>Keep key stakeholders informed of predicted Project accommodation demands across Construction Phase 1.</li> </ul>
75	A Labour Force Study will be completed to inform decisions around Project recruitment and training initiatives for both the Construction Phase and the Operations Phase. The Labour Force Study will present the latest labour force data for the local and regional area and enable the development of Key Performance Indicators (KPIs) for future monitoring through the SIMP.
76	An Indigenous Participation Plan will be developed which will aim to identify particular job positions and supply work packages that will be targeted for Indigenous inclusion, and appropriate training and development programs will be outlined to support this objective.
77	KEPCO will commence the preparation of a Mine Closure Social Impact Assessment at least 5 years prior to potential Mine Closure and update the plan three years prior to mine closure consistent with the Recommended Development Conditions.
78	KEPCO comply with its obligations under the Voluntary Planning Agreement in place with the MWRC and deliver the contributions as detailed in the Development Consent.
79	<p>KEPCO is committed to the development and implementation of a Monitoring, Reporting and Review Program for the Project to:</p> <ul style="list-style-type: none"> <li>Measure success of the SIMP in addressing potential social impacts; and</li> <li>measure the long-term contribution of the Project to the sustainability of the Bylong Valley community and neighbouring centres.</li> </ul>
<b>Visual</b>	
80	A Landscape Management Plan will be developed and finalised in consultation with local landholders and relevant agencies.
81	Additional screening will be implemented to augment the visual barriers created by existing topography and vegetation.
82	Lighting will be designed and installed to minimise direct and diffuse lighting impacts (including artificial skyglow) from the Project.