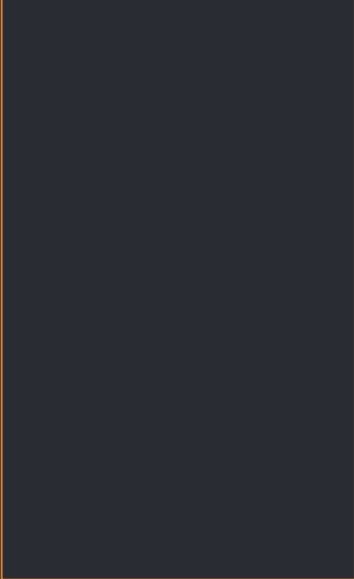
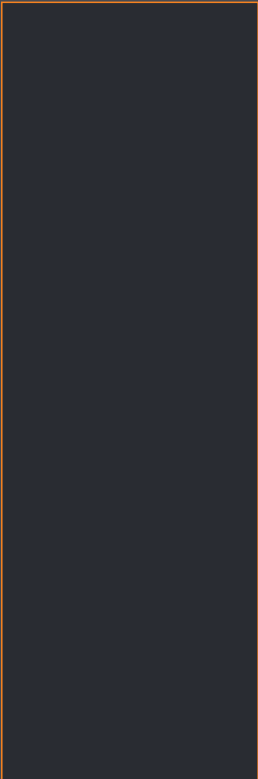




WILPINJONG COAL PROJECT

MAIN REPORT

Section Six Reconciliation of Key EIS Requirements



6.1 RECONCILIATION OF KEY EIS REQUIREMENTS

Tables 6-1 to 6-5 provide a summary of the key requirements of Integrated/Other Authorities in relation to Sections 1 to 5 and identify where these requirements have been addressed. The key requirements in Tables 6-1 to 6-5 are additional to the Director-General's requirements outlined in Table 1-4 (Section 1.5).

Table 6-1
Section 1 – Reconciliation Summary

Key Requirements of Integrated/Other Authorities	Section/Table
DIPNR	
The EIS must address the regulatory requirements on mining through a river, as defined under the <i>Water Act, 1912</i> and extraction from a river.	Section 1.3.4
DEC	
An analysis of alternatives (mine layout, technologies etc.) to avoid impacts.	Section 1.7
Consultation carried out with all relevant Aboriginal groups.	Section 1.5.2
The objectives of the proposal should be clearly stated.	Section 1.2.1
The basic principles of Ecologically Sustainable Development should be addressed.	Section 1.6
Provide an overview of the methodology used to identify and prioritise issues. Provide a summary of the outcomes of the process.	Section 1.5.4
Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.	Section 1.7
Identify licensing required by the EPA under environment protection legislation.	Table 1-2

Table 6-2
Section 2 – Reconciliation Summary

Key Requirements of Integrated/Other Authorities	Section
DIPNR	
Projected requirements for water supply.	Section 2.9.2
Details in regard to any mine water storage proposed for the development.	Sections 2.3.6 and 2.9
Details of any proposed diversion of watercourses.	Section 2.9.1
Description of the integrated water management system, including an assessment of the water management system under a range of climatic conditions.	Sections 2.9.1 and 2.9.2
Description of all activities to be undertaken within and adjacent to any watercourse, including any floodplain water management work, diversion or exclusion bund.	Sections 2.3, 2.4 and 2.9.1
Locations and construction details of all proposed bores, including their purpose.	Sections 2.3.6 and 2.9.3
The methodology by which proposed relocation or reinstatement of watercourses would be undertaken.	Section 2.9.1
DPI-MR (formerly DMR)	
Text illustrated by a table detailing the stratigraphic succession and the relationship between coal seams in the Project area. Particular reference should be made to the seam(s) within which mining operations are proposed.	Section 2.1
A statement and table quantifying the coal resources and reserves within the Project area.	Section 2.1
Overburden will need to be characterised and the most suitable horizons assessed for the upper layers of the rehabilitated areas. Potential net acid producing and saline/sodic overburden/interburden materials are to be managed.	Section 2.8.1
Location and methods to achieve long term stability of the clean water diversions.	Section 2.9.1
Preliminary evaluation of potential acid production in tailings and its planned ongoing management.	Section 2.8.3

Table 6-2 (Continued)
Section 2 – Reconciliation Summary

Key Requirements of Integrated/Other Authorities	Section
DEC	
Provide an overall description of the proposed development including the rail and conveyor systems and coal storage, handling and loading facilities.	Sections 2.2, 2.3.5, 2.3.7, 2.3.8, 2.5 and 2.6
Provide details of the coal handling arrangements.	Sections 2.4.7, 2.5 and 2.6
Provide a description of the operation of the proposed washery rejects emplacement facilities.	Section 2.8
Outline construction works including: • surface works including earthworks or site clearing; • re-use and disposal of cleared material (including use of spoil on-site); • construction timetable and staging; • hours of construction; and • proposed construction methods.	Sections 2.3 and 2.4 Sections 2.4 and 2.8 Sections 2.2 and 2.3 Sections 2.3 and 2.12 Section 2.3
Identify infrastructure requirements (e.g. water and sewage services).	Sections 2.3, 2.9.3, 2.10 and 2.11.4
Specify the times of operation for the construction and operational phases of the development and for all noise producing activities.	Sections 2.3, 2.4 and 2.12
Outline the proposed stream diversions and subsequent stabilisation and intended rehabilitation of disturbed areas.	Section 2.9.1
Describe the effluent treatment and disposal system.	Section 2.11.4
Identification of all wastes which cannot be re-used in accordance with EPA <i>Environmental Guidelines, Assessment, Classification and Management of Liquid and Non-Liquid Wastes</i> .	Section 2.11.2
Water requirements (quantity, quality and source[s]) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.	Sections 2.9, 2.10.4 and 2.11.4
Describe management procedures that would be adopted to prevent pollution of waters by mine water, effluent, stormwater runoff etc. The water management plan should also include a monitoring program to assess the impacts of the operation on the quality and quantity of surface and groundwaters.	Sections 2.9 and 2.11.4
Describe management procedures for rehabilitation of mined areas in order to prevent the potential pollution of ground and surface waters by potential acid mine drainage.	Section 2.8
Outline how total water cycle considerations are to be addressed showing total water balances for the development (with the objective of minimising demands and impacts on water resources).	Section 2.9
Identify any new stream crossings.	Section 2.3
A water management plan and site water balance should be prepared.	Section 2.9.1
DPI-Fisheries (formerly NSW Fisheries)	
Describe dredging and reclamation activities.	Sections 2.3.2, 2.3.6 and 2.9.1
Describe activities that block fish passage.	Sections 2.3.2, 2.3.6 and 2.9.1
Details of the location of all component parts of the proposal, including any auxiliary infrastructure, timetable for construction of the proposal with details of various phases of construction.	Sections 2.2, 2.3 and 2.12
MWRC (formerly MSC)	
Identification of communication infrastructure requirements during construction and operational phases.	Section 2.10.5
Identification of employee accommodation requirements during the construction phase.	Section 2.3.1
RTA	
Design of the access road in accordance with Section 4 of RTA's Road Design Guide.	Section 2.3.2

Table 6-3
Section 3 – Reconciliation Summary

Key Requirements of Integrated/Other Authorities	Section/Figure
DIPNR	
Baseline groundwater investigations.	Sections 3.3 and 3.8
Details of groundwater users within the area of the development.	Section 3.3
DEC	
Describe the catchment including proximity of the development to any waterways and provide an assessment of their sensitivity/significance.	Sections 3.2.1, 3.2.2 and 3.8
Describe existing surface and groundwater quality in accordance with <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> .	Sections 3.2.3 and 3.3.4
Provide site drainage details.	Section 3.2.2
Describe the condition of the local catchment.	Sections 3.1.1, 3.1.4, 3.2.3, 3.3.4, 3.6 and 3.8
Existing flow and stream characteristics.	Sections 3.2 and 3.8
Outline baseline groundwater information.	Sections 3.3 and 3.8
Determine existing background noise levels at noise sensitive locations in the area in accordance with the INP.	Section 3.4
Identify the landuse zoning of the site and the immediate vicinity.	Section 3.1.1
Assessment of existing rail noise.	Section 3.4.3
Identify the extent that the receiving environment is already stressed by existing development and background levels of emissions.	Sections 3.4 and 3.5
Provide a description of the existing air quality.	Section 3.5
Provide a description of the existing meteorology.	Section 3.1.2
A description of the topography and surrounding landuses.	Section 3.1
Locations of dwellings, schools and hospitals.	Figure 3-1 and Section 3.12
Provide details of the site history - with regard to possible soil contamination.	Sections 3.1.4 and 3.1.5
Survey and mapping to identify threatened flora and fauna species and endangered ecological communities and their habitats and their conservation significance.	Sections 3.6, 3.7 and 3.8
Assessment to ascertain the possible presence of White Box, Yellow Box, Blakely's Red Gum Woodland.	Section 3.6.3
Assessment for Regent Honeyeater habitat.	Section 3.7.2
Targeted surveys for specific species should be conducted.	Sections 3.6.3 and 3.7.2
Assessment and evaluation of the fauna habitat attributes of the study area.	Sections 3.7 and 3.8
A comprehensive assessment, including archaeological surveys to identify the Aboriginal cultural heritage values within the study area in consultation with the Aboriginal community.	Section 3.9
DPI-Fisheries (formerly NSW Fisheries)	
Description of aquatic vegetation.	Section 3.8
Include a threatened aquatic species assessment.	Section 3.8
A description of aquatic habitat including the condition and the presence and prevalence of introduced species.	Section 3.8
RTA	
Statement of existing rail movements.	Section 3.11.4

Table 6-4
Section 4 – Reconciliation Summary

Key Requirements of Integrated/Other Authorities	Section
DIPNR	
Describe how the principles/objectives of the <i>Water Management Act, 2000</i> would be met.	Sections 4.1, 4.3, 4.4, 4.7, 4.8 and 4.9
Describe how the requirements of the <i>NSW State Rivers and Estuaries Policy</i> would be met.	Sections 4.3, 4.4, 4.7, 4.8 and 4.9
Describe how the requirements of the <i>NSW Groundwater Quantity Management Policy</i> would be met.	Section 4.4
Describe how the requirements of the <i>NSW Groundwater Quality Protection Policy</i> would be met.	Sections 4.4, 4.7, 4.8, 4.9 and 4.15
Describe how the requirements of the <i>NSW Groundwater Dependant Ecosystem Policy</i> would be met.	Sections 4.4, 4.7, 4.8 and 4.9
Identify potential impacts on Wilpinjong Creek and subsequent impacts on downstream water users and the environment.	Sections 4.3, 4.4 and 4.9
Assess potential impacts on salinity.	Sections 4.3 and 4.4
Outline site water management.	Section 4.3
Explain the potential changes in groundwater regime from pre-mining ranges of groundwater conditions to the post-mining equilibration of groundwater table levels.	Section 4.4
Assess the location of the open cut pits in terms of their potential to intercept surface or ground waters.	Sections 4.3 and 4.4
DEC	
Assess the potential direct and indirect impacts of the development on flora and fauna, including those within the National Park estate (e.g. impacts on wildlife corridors, hydrology, surface water etc.) and outline measures to avoid/minimise impacts on adjoining DEC estate.	Sections 4.7 to 4.9
Assess potential indirect impacts on the National Park estate and include measures to address noise, dust, visual and recreational impacts on Park visitors.	Sections 4.2, 4.5, 4.6, 4.7 and 4.8
Assess the cumulative impact of the proposal on flora and fauna.	Sections 4.7 to 4.9
Discuss conservation outcomes (e.g. retention of areas of high conservation significance for flora, fauna and Aboriginal heritage).	Sections 4.7 to 4.10
Address aspects relevant to the future management of the adjoining National Park estate (e.g. access and feral animal control).	Sections 4.7, 4.8 and 4.12
Identify potential impacts on Aboriginal cultural heritage and associated mitigation measures, in consultation with the relevant Aboriginal communities.	Section 4.10
Control the generation of air pollutants on-site and contain any pollutants generated to minimise adverse effects.	Section 4.6
Predict TSP and PM ₁₀ dust concentrations and dust deposition levels.	Sections 4.6.2 and 4.6.3
Assess the impact of the mine on local and regional air quality and include comparisons with relevant goals/standards. Include an assessment of cumulative air quality impacts.	Sections 4.6.2 and 4.6.3
Assess greenhouse gas emissions and identify measures to minimise emissions.	Section 4.6.4
Describe the effects and significance of pollutant concentration on the environment, human health, amenity and ambient air quality standards.	Sections 4.6 and 4.7
Investigate the likelihood of spontaneous combustion and identify appropriate management measures.	Section 4.6.5
Assess the potential odour from the proposed operations.	Section 4.6.5
Assess the potential impacts of noise in accordance with the <i>Industrial Noise Policy, 2000</i> .	Section 4.5
Determine the expected noise levels and noise characteristics likely to be generated, including those at sensitive locations under both prevailing and adverse meteorological conditions.	Section 4.5
Assess ground vibration and overpressure levels and compare them to those recommended by ANZECC.	Section 4.5.6
Include a traffic noise assessment referring to the EPA's <i>Environmental Criteria for Road Traffic Noise (1999)</i> .	Section 4.5.4

Table 6-4 (Continued)
Section 4 – Reconciliation Summary

Key Requirements of Integrated/Other Authorities	Section
DEC (Continued)	
Discuss the findings of the predictive modelling and, where relevant noise criteria have not been met, recommend additional mitigation measures. Where relevant noise/vibration criteria cannot be met, quantify the residual level of noise impact (e.g. locations, times etc.).	Section 4.5
Outline noise mitigation and management measures.	Section 4.5
Determine any changes to hydrology.	Section 4.3
Identify potential impacts on groundwater quality and quantity.	Section 4.4
Describe site water management including the management of high salinity waters.	Section 4.3
Identify potential impacts associated with geomorphologic activities with potential to increase surface water and sediment runoff or to reduce surface runoff and sediment transport.	Sections 4.1.2 and 4.3
Identify potential impacts associated with the handling and storage of any wastes and/or chemicals.	Sections 4.1.4 and 4.3
Identify potential impacts on soil resources (e.g. potential to disturb any existing contaminated soil, the potential for soil contamination, acid mine drainage, soil erosion etc.) and associated mitigation measures.	Section 4.1 and 4.3
Assess the cumulative impacts of the proposal against the relevant air, noise and water quality objectives for the area or region.	Sections 4.3, 4.4, 4.5 and 4.6
MWRC	
Conduct a social and economic impact assessment.	Sections 4.14 and 4.15
Assess the impact of dust, noise, vibration and dust on flora and fauna within the adjoining nature areas.	Sections 4.5, 4.6, 4.7 and 4.8
Assess the heritage significance and impact on the homesteads and associated buildings located within the mine lease.	Section 4.11
Conduct an analysis of the impact of heavy haulage traffic movement on the local road network during construction and operation.	Section 4.12
DPI-MR	
Assess the water balance over the mine life and the impact of water supply options on downstream environmental flows.	Sections 4.3 and 4.4
DPI-Fisheries	
Include an assessment of threatened aquatic biota.	Section 4.9.1
Address possible indirect effects of the proposal on species/habitats in the area surrounding the subject site (e.g. altered hydrological regimes, soil erosion or pollution).	Section 4.9.1
Indicate the location, nature and extent of habitat removal or modification and discuss the potential impacts of the removal/modification.	Section 4.9.1
Identify and discuss the potential for activities to introduce barriers to the movement of fish.	Section 4.9.1
Measures for minimising harm to fish habitat under the proposal.	Section 4.9.2
Measures to compensate for the loss of fish habitat.	Section 4.9.2
Develop long term management strategies (e.g. proposals to restore or improve habitat).	Section 4.9.2
RTA	
Include a traffic impact statement covering vehicle movements during construction and operation, as well as vehicle classifications, possible loads, peak flows etc.	Section 4.12.1
Inclusion of a transport statement covering details of train movements associated with the transport of extracted materials.	Section 4.13

Table 6-5
Section 5 – Reconciliation Summary

Key Requirements of Integrated/Other Authorities	Section/Figure
DIPNR	
Details of the proposed water monitoring programs, including water levels and quality data.	Sections 5.1.3.6 and 5.1.3.7
Reporting procedures for the monitoring program including mechanism for transfer of information.	Section 5.1.1
A ground and surface water monitoring program must be provided.	Sections 5.1.3.6 and 5.1.3.7
A monitoring, contingency and remediation program must be described in the EIS for water sources affected by the mining proposal.	Sections 5.1.2.4, 5.1.2.5 and 5.1.2.6
Discussion of proposed monitoring programs and reporting procedures regarding chemical and biological parameters of water quality.	Sections 5.1.1, 5.1.3.6, 5.1.3.7 and 5.1.3.8
Contingency plans for the rehabilitation of aquifers if there is any adverse impact on the beneficial use of the aquifer system as a result of the development.	Section 5.1.2.5
DEC	
Best practice rehabilitation including use of endemic species and staged regeneration of each pit tied to completion criteria.	Sections 5.2 and 5.5
Include details of an air quality monitoring program including provision for investigations in response to complaints.	Section 5.1.3.2
Specify noise monitoring locations.	Section 5.1.3.3 and Figure 5-1
Provide details of a noise and blasting monitoring program.	Sections 5.1.3.3 and 5.1.3.4
Outline any proposed approach that would demonstrate how commitments made in the EIS would be implemented.	Section 5
The mitigation strategy should include the environmental management which would be followed when planning, designing, establishing and operating the proposal.	Section 5.1
Outline how the proposal and its environmental protection measures would be implemented and managed in an integrated manner so as to demonstrate that the proposal is capable of complying with statutory obligations under an EPA licence (e.g. outline of an environmental management plan).	Section 5
The design and presentation of detailed proposals to establish a free draining final landform.	Section 5.2
DPI-MR	
Proposals for progressive rehabilitation and the final conceptual landscape.	Section 5.2 and Figure 5-3