Table C-1 Cross reference to Director General's requirements

Requirement	EA Section
General requirements	
The environmental assessment must include:	
▪ An executive summary.	page vii
▪ A description of the proposal, including construction, operation and staging.	Chapter 3
▪ Details of the location of the project and environmental planning provisions applicable to the site and the project.	Section 3.1 and Chapter 4
▪ Consideration of all alternatives to the project.	Section 2.4 and Section 2.5
▪ An assessment of the environmental impacts of the project, with particular focus on the key assessment requirements specified below.	Chapter 7 to Chapter 13
▪ Proposed mitigation/ management/ compensatory measures to prevent, control, abate or minimise identified environmental impacts and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after the measures are implemented.	Chapter 16
▪ Justification for undertaking the project with consideration of the benefits/impacts of the proposal, and proposed management/ measurement/ monitoring.	Chapter 16
▪ A draft Statement of Commitments for environmental mitigation, management and monitoring for the project.	Chapter 15
▪ Certification by the author of the Environmental Assessment that the information contained in the Assessment is neither false nor misleading.	page i
Key assessment requirements	
The Environmental Assessment must include assessment of the following key issues:	
Ash management:	
▪ Detail options investigated to date for ash disposal and management (including reuse and recycling options).	Section 2.2, 2.3 and 2.4
▪ Justification for the preferred ash disposal option.	Section 2.4.6
▪ A strategy for developing and implementing short, medium and long term ash management options (including ash reprocessing, reuse and recycling options) with the aim of maximising the use of this potential resource and maximise the available emplacement area life.	Section 14.3
▪ Details of any proposed staged implementation of the proposed ash disposal option (in conjunction with other ash management options as required).	Section 3.3.2
▪ Anticipated annual quantities of ash waste to be managed over the life of the project.	Section 2.2
▪ Describe the physical and chemical characteristics of the ash and any limitations and opportunities associated with such characteristics for the purposes of developing alternative ash management options.	Section 2.2 Section 2.3

Requirement	EA Section
Realignment of Sawyers Swamp Creek	
▪ Detailed information of the proposed realignment of the creek, including, but not limited to:	
▸ design parameters	Appendix B
▸ construction techniques and methods	Section 3.2
▸ operational maintenance and monitoring requirements.	Section 8.4.3
▪ Demonstrate that the realigned creek is geomorphologically stable in the long term.	Appendix B
▪ Options for the creek realignment, including (but not limited to) realignment to a naturalised condition or reinstating the alignment of the original creek that are affected by the ash dam must be considered.	Section 2.5 and Appendix B
▪ A draft Rehabilitation Plan for Sawyers Swamp Creek, covering the section of the creek from where it enters the open channel below the ash dam (wet emplacement) wall to the Lidsdale cut (with particular emphasis on the relocated section of the creek), which gives consideration to incorporating aquatic habitat elements into the rehabilitation of the creek including snags and instream structures, planting of macrophytes and endemic riparian vegetation, weed management, natural channel morphology and pool/riffle sequences, a buffer zone of rehabilitated land along the northern side of the realigned creek to protect the creek from areas of coal waste and provides for erosion control.	Appendix B
▪ The draft plan must include requirements for a 20-metre riparian zone each side of the top of bank of the creek.	Appendix B
▪ The draft plan must be prepared in consultation with DPI (aquatic ecology aspects) and DNR (in relation to geomorphic issues and foreshore matters).	Appendix B
▪ The draft plan must consider and apply the principles of the DNR's guidelines *How to prepare a Vegetation Management* and *Watercourses and Riparian Area Planning, Assessment and Works Design Guideline*.	Appendix B
Water quality and hydrological impacts	
The Environmental Assessment must include:	
▪ a water quality and hydrology impact assessment and associated mitigation measures.	Chapters 7 and 8
▪ Demonstrate that the proposal (in its entirety) will have a neutral or beneficial effect on water quality, with overtime water quality improvements to original water quality conditions in the area.	Chapter 7 and 8
▪ Appropriate models like MUSIC must be used to demonstrate a neutral or beneficial impact on water quality.	Chapter 8, Appendix F
▪ The study must characterise and assess site hydrology and water management including:	
▸ drainage	Chapter 8
▸ stormwater and flooding	Chapter 8
▸ surface water	Chapter 8
▸ groundwater.	Chapter 7
▪ The assessment must cover:	
▸ construction and operational phases	Sections 7.4, 7.5, 8.3 and 8.4
▸ consider relevant state and ANZECC water related guidelines.	Chapters 7 and 8

Requirement	EA Section
▪ The downstream impacts of the reuse of water captured off the ash emplacement areas also needs to be included in the assessment.	Section 8.3
▪ The comprehensive groundwater impact assessment must:	
▸ include an assessment of groundwater dependent ecosystems	Section 7.2.3
▸ be prepared in accordance with the DNR's guideline *Groundwater Director General's Requirements Developments with the potential to impact upon groundwater.*	Section 7.2.3
▪ The studies must also describe actual impacts identified on the existing operations of Stage 1 ash dam.	Section 7.3
▪ The water quality investigations must address the cumulative impacts on water of the proposal in conjunction with other activities in the area such as power generation, coal mining and a proposed landfill.	Chapter 8
▪ The Environmental Assessment must provide details of the current and proposed water quality monitoring during construction and operation as to assess changes to quality of receiving waters.	Sections 7.5.2 and 8.4.3
Aquatic ecology impacts	
▪ The Environmental Assessment must include a description of baseline habitat, species and fishery.	Section 9.2
▪ The whole area which may be directly or indirectly affected by the proposal must be identified and shown on an appropriately scaled map and aerial photographs.	Figure 9-1 Figure 8-1 Figure 9-3
▪ All waterways and water bodies within the proposed area of development, or likely to be affected by the proposal, including ephemeral freshwater lakes and streams, are to be identified.	Section 9.2
▪ Descriptions of affected streams and rivers should include:	Section 9.2, Appendix G Chapter 8, Appendix F
▸ maximum and minimum or percentile flow (ML/day)	
▸ length	
▸ presence of gravel beds	
▸ presence of waterfalls or barriers to fish movement	
▸ substrate types.	
▪ A description of aquatic vegetation, snags, gravel beds and any other protected threatened or dominant habitats must be presented.	Section 9.2 Appendix G
▪ Area, density and species composition must be included and mapped.	Section 9.2
▪ A list of fish (finfish and macro-invertebrate) species present within the aquatic habitats that will be impacted compared to control (or reference) locations must be presented, including any threatened species, population or ecological communities of fish listed under the *Fisheries Management Act 1994* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.	Section 9.2
▪ The Environmental Assessment must include an assessment of the impact of the proposal on the aquatic environment, including, but not limited to:	Section 9.3 Chapter 8 Appendix G Appendix F
▸ impacts by containment and isolation of surface water on the ash dam site	
▸ effects on the frequency, duration and variability of local flow events	

Requirement	EA Section
▸ quantification of the total amount of water permanently prevented from entering the catchments.	
▪ The Environmental Assessment must include safeguards and remedial measures proposed to reduce adverse effects, including: ▸ the creation of additional habitat and/or ▸ proposed habitat compensation measures, and ▸ details of any proposed compensation for water diversion that could be gained from Delta's storages downstream.	Section 9.4, Appendix B
Air quality impacts	
▪ The Environmental Assessment must include a quantified assessment of the air quality impacts of the proposal (including ash transportation), with emphasis on TSP, PM_{10} and contaminants in the ash.	Chapter 10
▪ Detail mitigation measures proposed to minimise identified impacts.	Section 10.4
▪ The cumulative impacts of the proposal in relation to pollution emissions in the same locale (i.e. power stations, coal mines, etc.) must be assessed and mitigation measures proposed.	Section 10.3
▪ The air quality assessment must be prepared in accordance with the DEC's guidelines *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2005), *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (2007) and *Action for Air: The NSW Government's 25 year Air Quality Management Plan* (March 1998).	Section 10.1
Noise impacts	
▪ The Environmental Assessment must include an assessment of all noise associated with the proposal (including the haulage of ash on the private haul road) in accordance with the DEC's *Industrial Noise Policy* (EPA 1999) and associated *Industrial Noise Policy Application Notes*.	Chapter 11
▪ The noise assessment must also consider the *NSW Environmental Criteria for Road Traffic Noise* (EPA 1999) and Chapter 171 *Noise Control Guideline, Construction Site Noise, Environmental Noise Control Manual 1994* as relevant to the project.	Section 11.3
▪ The assessment must detail proposed measures to manage noise impacts, including any proposed acoustic barriers along the haul road.	Section 11.5
▪ The assessment must demonstrate compliance with the adopted noise criteria.	Section 11.4
▪ The assessment must outline the proposed noise monitoring during the construction and operational phases of the proposal.	Section 11.5
General environmental risk analysis	
Notwithstanding the above key requirements, the Environmental Assessment must include an environmental risk analysis to identify potential environmental impacts associated with the project, proposed mitigation measures and potentially significant residual environmental impacts after the application of the proposed mitigation measures. Where additional environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of these additional environmental impacts must be included in the Environmental Assessment.	Chapters 6 and 16
The Environmental Assessment must consider relevant environmental planning instruments, state legislation and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.	Chapter 4

Requirement	EA Section
Consultation requirements	
Consultation with the following parties must be undertaken during the preparation of the Environmental Assessment:	Chapter 5
▪ NSW Department of Environment and Conservation	Chapter 5
▪ Sydney Catchment Authority	Chapter 5
▪ Lithgow City Council	Chapter 5
▪ Department of Primary Industries	Chapter 5
▪ Department of Natural Resources	Chapter 5
▪ affected residents and relevant community and Aboriginal groups.	Chapter 5