APPENDIX

A

DUNGOWAN DAM AND PIPELINE EIS

SEARs compliance table

NSW GOVERNMENT | EMM creating opportunities

Appendix A. SEARs compliance table

Table A.1 SEARs compliance

Requirement	Where principally addressed within the EIS
General requirements	
The project requires approval under the Environment Protection and *Biodiversity Conservation Act 1999* (Cth) (EPBC Act), and is being assessed under the Bilateral agreement made under the section 45 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) relating to environmental assessment between Commonwealth of Australia and The State of New South Wales (Bilateral Agreement) as amended. The EIS must address the requirements of Attachment 1. Where the Proposal requires approval under the EPBC Act and is being assessed under the Bilateral Agreement the EIS should address:	
a) Consideration of any Protected Matters that may be impacted by the development where the Commonwealth Minister has determined that the Proposal is a Controlled Action.	Appendix H Appendix I
b) Identification and assessment of those Protected Matters that are likely to be significantly impacted.	Appendix H Appendix I
c) Details of how significant impacts to Protected Matters have been avoided, mitigated and, if necessary, offset.	EIS Chapters 7 and 8 Appendix H Appendix I
d) Consideration of, and reference to, any relevant conservation advices, recovery plans and threat abatement plans.	Appendix H Appendix I
The onus is on the Proponent to ensure legislative requirements relevant to the Proposal are met. In particular, the EIS must include, but not necessarily be limited to, the following:	
a) An executive summary.	An EIS Summary report has been prepared that synthesises the description of the project, the biophysical, social and economic considerations, and the framework proposed to manage project impacts. The Summary report is provided with this EIS as a standalone document and is also available online at: https://water.dpie.nsw.gov.au/water-infrastructure-nsw/dam-projects/dungowan-dam

Requirement	Where principally addressed within the EIS
b) A full description of the project, including:	
i) The design for the project that is proposed to be constructed and operated.	EIS Chapter 4 Appendix B1 and B2
ii) All assessment within the EIS should address the full scope of proposed works, including the proposed dam, the proposed pipeline, and all proposed changes to the existing dam.	Noted
iii) The responsible parties for ongoing ownership, operation and maintenance of the scheme.	EIS Chapter 4
iv) All components, disturbance areas, materials, activities, site preparation and construction infrastructure (e.g. storage compounds, dirty water areas, roads, concrete batch plants) required to construct the project (including any ancillary development that may require separate approvals).	EIS Chapter 4 Appendix B1
v) The operation of the existing and proposed dams, proposed pipeline, and associated dam or water delivery infrastructure that is proposed to be constructed.	EIS Chapter 4 Appendix B1
vi) Likely staging or sequencing of the project, including construction, operation, maintenance, decommissioning and rehabilitation.	EIS Chapter 4 Appendix B1
vii) Site plans, maps, drawings and diagrams at an adequate scale with dimensions in an electronic format that enables integration with mapping and other technical software, showing: A) The location and dimensions of all project components. B) Existing infrastructure, land use and environmental features. C) The development footprint that has been assessed and consideration of design options.	EIS Chapter 4 Appendix B1 and B2
viii) The likely interactions between the project and any other existing, approved, proposed, reasonably foreseeable development in the vicinity of the site, including an assessment of the cumulative impacts on the environment.	EIS Chapters 1 and 21
ix) Identification of the extent of significant impacts from the regulation of previously unregulated river systems, including the end of system point, and justification for the selection of this extent.	Appendix B1 Appendix F
c) A summary of the strategic need with regard to its critical State significance and relevant State Government policy.	EIS Chapter 2
d) A statement of the strategic objective(s).	EIS Chapter 2

Requirement	Where principally addressed within the EIS
e) A description of how alternatives to and options within the project were analysed and optimised to inform the selection of the preferred alternative/option. The description must contain sufficient detail to enable an understanding of why the preferred alternative was selected over other options(s) considered for achieving the project strategic objective.	EIS Chapter 2
f) The statutory context of the Proposal (as a whole) including: i) How it meets the provisions of the *Environmental Planning and Assessment Act 1979* (the EP&A Act) and the EP&A Regulation. ii) A list of any approvals that must be obtained under any other Act or law before the Proposal may lawfully be carried out. iii) Identification of the existing environmental planning instruments and other current government strategic plans and policies relevant to the project and land subject to the Proposal (including State environmental planning policies, land use and infrastructure strategies and local strategic planning statements).	EIS Chapter 3 Appendix C
g) An assessment of the likely impacts of the project on the biophysical and socio-economic environment, focusing on the specific issues identified below and any other significant issues identified, including:	
i) A description of the existing environment likely to be affected by the project using relevant and adequate data.	EIS Chapter 6 – Chapter 21 Appendix F – Appendix Y
ii) An assessment of the potential impacts of the project, including any cumulative impacts, and taking into consideration relevant guidelines, policies, plans and industry codes of practice.	EIS Chapter 6 – Chapter 21
iii) A description and details of how the project has been designed to avoid, minimise and offset impacts.	EIS Chapter 6 – Chapter 21
iv) A description of how any residual impacts will be managed or offset, including justification of the selection and effectiveness of these measures.	EIS Chapter 6 – Chapter 21
v) Any assumptions used in the modelling for the assessment of likely impacts.	Appendix F, Annexure A, Attachment E Appendix U Appendix V

Requirement	Where principally addressed within the EIS
h) A chapter that synthesises the environmental impact assessment and provides	An EIS Summary report has been prepared that synthesises the description of the project, the biophysical, social and economic considerations, and the framework proposed to manage project impacts. The Summary report is provided with this EIS as a standalone document and is also available online at: https://water.dpie.nsw.gov.au/water-infrastructure-nsw/dam-projects/dungowan-dam
i) A succinct but complete description of the project for which approval is sought.	EIS Chapter 1 EIS Summary
ii) A description of any uncertainties that still exist around design, construction methodologies and/or operational methodologies and how these will be resolved.	EIS Chapter 22
iii) A compilation of the impacts of the project that have not been avoided.	EIS Chapters 6–21
iv) A compilation of the proposed measures associated with each impact to avoid or minimise or offset these impacts.	Appendix E
v) A compilation of the outcome(s) the proponent will achieve.	EIS Chapter 22
vi) The reasons justifying carrying out the project as proposed, having regard to the biophysical, economic and social considerations, including ecologically sustainable development and cumulative impacts.	EIS Chapter 22
vii) A consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS.	Appendix E
The EIS(s) must only include data and analysis that is reasonably needed to make a decision on the Proposal. Relevant information must be succinctly summarised in the EIS and included in full in appendices. Irrelevant, conflicting or duplicated information must be avoided.	
While not exhaustive, Attachment 2 contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of the project.	

Requirement	Where principally addressed within the EIS
Key Issues	
The level of assessment of likely impacts should be commensurate with the significance, degree or extent of impact within the context of the proposed location and surrounding environment. The assessment must have regard to applicable NSW and Commonwealth Government policies and guidelines. In particular, the EIS must address the following:	
Water	
Assessment of water related impacts in consultation with, and having regard to the requirements of DPIE Water regarding scientific modelling assumptions, hydrological modelling methodologies and modelling inputs, including:	
1. A description and mapping, of the existing hydrological and hydrogeological regimes upstream and downstream to the proposed end of system flow point for surface and groundwater resources likely to be impacted by the project, including:	
a) Rivers, streams, wetlands, groundwater resources, groundwater dependant ecosystems, drainage patterns, watercourses, and riparian land.	EIS Chapter 6 Appendix F, Chapter 5
b) Preferred options for proposed intake and dam discharge locations.	EIS Chapter 4
c) Highly connected alluvial aquifers and their responses to river flows.	EIS Chapter 6 Appendix G, Chapters 3 and 4
d) Groundwater systems including alluvial aquifers and recharge rates.	EIS Chapter 6 Appendix G, Chapters 3 and 4
This description must incorporate relevant and adequate baseline assessment data and information, including:	
a) Baseline data such as flows, levels, quantity and quality of flows.	EIS Chapter 6 Appendix F, Chapter 5
b) River channel form and river styles.	Appendix F, Chapter 5 and Annexure D
c) Relationships between the channel and adjacent floodplains.	Appendix F, Annexure D and Annexure J
d) Geomorphic assessment including in-channel geomorphic features of the project footprint, and upstream and downstream banks.	EIS Chapter 6 Appendix F, Chapter 5 and Annexure D
e) Sediment transmission rates, storage and reworking, and in-channel sediment features.	Appendix F, Chapter 5 and Annexure D

Requirement	Where principally addressed within the EIS
f) Energy transmission through the system.	Appendix F, Chapter 5 and Annexure D
2. An assessment and mapping of the predicted impacts of construction and operation of the project on water quality and hydrological, hydrogeological regimes, impacts of regulated river operations and any required contingency arrangements on flow characteristics at the project footprint, upstream and downstream for all surface and groundwater resources likely to be impacted by the project, including:	
a) A detailed water balance for ground and surface water.	Appendix F, Chapters 6 and 7
b) comparison to baseline data.	EIS Chapter 6 Appendix F, Chapter 7
c) Any changes to hydrologic behaviour.	EIS Chapter 6 Appendix F, Chapter 7
d) Altered flow hydrographs where unregulated rivers become regulated rivers.	Appendix F, Chapter 7
e) Impacts to river hydrology, hydraulics and geomorphology.	EIS Chapter 6 Appendix F, Chapter 7
f) Quantification and assessment of the lotic habitat changes (temporary and permanent).	EIS Chapter 8 Appendix I, Chapters 8 and 9
g) On indicators and trigger values/criteria for the environmental values identified in Water Quality Objectives in accordance with ANZECC (2000) *Guidelines for Fresh and Marine Water Quality*, and any local water quality objectives.	No changes to indicators or trigger values are proposed
h) Water quality impacts arising from any proposed alteration to the existing dam and subsequent releases to downstream waterways.	EIS Chapter 6 Appendix F, Chapter 6
i) Water quality impacts arising from the initial filling of the proposed dam and subsequent release.	Appendix F, Chapter 7 and Annexure E
j) Identification of water take volumes from relevant surface water and groundwater sources due to construction and operation of the project.	EIS Chapter 6 Appendix F, Chapter 6 Appendix G, Chapter 9
k) The extent and changes in longitudinal and lateral hydrologic connectivity.	Appendix F, Annexure A
l) Any impacts to existing water users.	EIS Chapter 6 Appendix F, Chapters 6 and 7

Requirement	Where principally addressed within the EIS
m) Anticipated impacts to flood flow transmission and continuity.	EIS Chapter 6 Appendix F, Chapters 6 and 7
n) Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.	Appendix F, Chapter 7
o) Potential for water eutrophication, the potential for blue green algal blooms.	Appendix F, Chapter 7 and Annexure E
p) Changes to groundwater recharge and levels.	EIS Chapter 6 Appendix G, Chapters 8 and 9
q) Hydrologic connectivity along the regulated river and pool function and behaviour.	Appendix F, Chapter 7
r) Interruption of sediment transmission, effects of sediment starvation and potential for erosion and sediment release.	Appendix F, Annexure D
s) Impacts to erosion, bank form, sediment release and transport rates and bed perturbation from altered rates of rise and fall.	Appendix F, Annexure D
t) Potential for bank slumping or erosion.	Appendix F, Annexure D
3. Identification of mitigation measures for any impacts to hydrology, water quality and geomorphology resulting from the construction and operation of the project, including details of any monitoring programs proposed to measure the performance of the mitigation measures.	EIS Chapter 6 Appendix E Appendix F, Chapter 6, 7 and 9
4. Details of design criteria relating to the process of regulating a currently unregulated system, including	
a) River flow hydrographs.	Appendix F, Annexure A
b) Release rules.	No change caused by the project
c) Any proposed translucency measures and other alteration of riverine hydrology.	Appendix F, Chapter 7
d) Flow energy.	Appendix F, Annexure D
e) Sediment transport.	Appendix F, Annexure D
5. Details of the proposed operational management of water supply and proposed delivery system with specific reference to:	
a) Any use restrictions.	Appendix F
b) Treatment requirements.	Appendix F
c) Other necessary management tied to threshold percentage levels within the storage.	Appendix F

Requirement	Where principally addressed within the EIS
6. An assessment of the project's consistency with legislation and relevant consents, licences or permissions or any form of authorisation that govern the use or impacts of water, or affect water users, including:	
a) Identification of legislative and regulatory context and relationships between these.	Appendix C Appendix F, Chapter 4
b) Identification of whether potential legal or administrative changes are required to carry out the project.	EIS Chapter 3
c) Assessment of the impact on all existing water entitlements, approvals, or relevant exemptions required for the construction or operation of the project, including an assessment of the current market depth where water entitlement will be purchased.	Construction water requirements are described in Appendix F, Chapter 6 Operational water requirements are nil
d) Details of how Basin Plan requirements for protection of planned environmental water and sustainable diversion limits will be considered.	Appendix F, Chapter 7 and Annexure A
e) Details of any impacts on existing Water Sharing Plans (WSP) or Water Resource Plans, including any changes to meet WSP and Basin Plan objectives and requirements.	Appendix F, Chapter 7 and Annexure A
f) Impacts to groundwater in accordance with the NSW *Aquifer Inference Policy*.	EIS Chapter 6 Appendix G, Chapters 7 and 9
Terrestrial Biodiversity and Ecology – including:	
7. Assessment of terrestrial, riparian and floodplain biodiversity and ecology that addresses all direct, indirect, and prescribed impacts of the project on flora and fauna, threatened species, populations, and communities for the construction and operation of the asset, including flow dependent and groundwater dependent ecosystems.	EIS Chapter 7 Appendix H, Chapter 4 – 8, Annexure E and Annexure F
8. Assessment of impacts of changes to inundation behaviour on the floodplain ecosystems on, adjacent to or downstream from the project site. This must be informed by the flooding assessment required by these SEARs.	Appendix H, Chapter 7

Requirement	Where principally addressed within the EIS
9. Assessment and reporting of terrestrial biodiversity values and the likely biodiversity impacts of the project in accordance with the *Biodiversity Conservation Act 2016* and Biodiversity Conservation Regulation 2017, including: a) Assessment using the NSW Biodiversity Assessment Method (BAM) by a person accredited in accordance with the Accreditation Scheme for the Application of Biodiversity Assessment Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*. b) Production of a Biodiversity Development Assessment Report (BDAR) by a person accredited in accordance with the Accreditation Scheme for the Application of Biodiversity Assessment Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*. c) Assessment of impacts to listed threatened species and ecological communities, migratory species, and wetlands of international importance.	EIS Chapter 7 Appendix H, Chapters 7 and 8, Annexure E and Annexure F.
10. The BDAR produced must: a) Document the avoid, minimise, offset framework for all direct, indirect and prescribed impacts in accordance with the BAM. b) Include details of the measures proposed to address biodiversity offsetting requirements, including: i) The number and classes of biodiversity credits required to be retired for the project. ii) Number and classes of like-for-like biodiversity credits to be retired. iii) Number and classes of biodiversity credits proposed to be retired in accordance with the variation. iv) Any proposal to fund a biodiversity conservation action. v) Any proposal to make a payment to the biodiversity conservation fund. vi) If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to while attempting to obtain like-for-like biodiversity credits.	Appendix H, Chapter 7
11. The BDAR must be submitted with all spatial data associated with the survey and assessment as per Appendix 11 of the BAM.	Spatial data will be submitted to the Biodiversity, Conservation and Science Directorate (BCS) of the Department of Planning, Industry and Environment (DPIE) via the Biodiversity Offsets and Agreement Management System.

Requirement	Where principally addressed within the EIS
12. A strategy to offset any residual impacts of the project on terrestrial biodiversity in the medium to long term.	Appendix H, Chapter 7
Aquatic and Riparian Biodiversity and Ecology – including:	
13. Assessment of aquatic, riverine and riparian biodiversity and ecology that addresses all direct, indirect, and prescribed impacts of the project on Key Fish Habitat and associated flora and fauna, threatened species, populations, and communities for the construction and operation of the asset. The assessment must comply with requirements outlined in the *Policy and Guidelines for Fish Habitat Conservation and Management* (2013), and must be prepared in consultation with, and have regard to the requirements of DPI Fisheries.	EIS Chapter 5 EIS Chapter 8 Appendix I, Chapter 6 and Chapters 8–10
14. Assessment of impact of changes to inundated behaviour on aquatic ecosystems upstream and downstream from the project site.	Appendix I, Chapter 8
15. An assessment of likely significant impacts on listed threatened species, populations or ecological communities, in accordance with Part 7A of the *Fisheries Management Act*, 1994, including: a) Assessment of the impacts according to the 'Seven-Part Test'. b) Consideration of NSW DPI threatened species indicative distribution maps for species, populations and ecological communities likely to be present.	Appendix I, Annexure H
16. An Aquatic Biodiversity Offsets Strategy that is consistent with the *Policy and Guidelines for Fish Habitat Conservation and Management* (2013) and the NSW *Biodiversity Offsets Policy for Major Projects* that addresses direct, indirect, and prescribed impacts of the project during construction and operation, focusing on protecting and improving the biodiversity and conservation values of upstream and downstream waters, their biota, and associated riparian zones in the medium to long-term. The strategy must be prepared in consultation with, and have regard to the requirements of DPI Fisheries.	Appendix I, Chapter 11
17. Description of the type and extent of any dredging or reclamation activities within 'water land' as defined under the FM Act. This assessment must be prepared in consultation with, and have regard to the requirements of DPI Fisheries.	Appendix I, Chapter 8

Requirement	Where principally addressed within the EIS
18. An assessment performed in consultation with, and having regard to the requirements of NSW DPI Fisheries of the ecological impact of the project upon the safe upstream and downstream passage of fish over the full range of dam operating conditions, including: a) Assessment of how the proposed operating rules of the existing and proposed dams may impact upon safe fish passage as a result of the rules. b) Assessment of the risks of spillway design on the safe downstream passage of native fish, and mitigation measures that will be implemented to secure the safe downstream passage of native fish during dam spill events. c) Assessment of how the spillway stilling basin design mitigates the risk of fish being left stranded within or beneath the spillway following the cessation of spillway operation.	Appendix E Appendix I, Chapter 8 and Chapter 9
19. Development of suitable fish passage mitigation strategies (including potential offsets) to the satisfaction of NSW DPI Fisheries that align with the NSW DPI *Fisheries Fishway Design Guidelines* (2015) and the *Policy and Guidelines for Fish Habitat Conservation and Management* (2013), including: a) Justification that any proposed fish passage mitigation will be effective over the full operational range of the existing and proposed dams. b) Details and identification of the costs of any monitoring program that is proposed to evaluate fish passage impacts and planned mitigation measures for the purpose of adaptive management of the existing and proposed dams.	Appendix I, Chapter 11
20. A description and assessment of how the existing and proposed dams, pipeline, and associated water infrastructure will be managed over the full range of operating conditions, and how this relates to aquatic biodiversity mitigation and offsetting strategies.	Appendix F, Annexure A Appendix I, Chapter 9
21. An assessment of the ecological impacts of Cold-Water Pollution (CWP) from the operation of the existing and proposed dams.	Appendix I, Chapter 9

Requirement	Where principally addressed within the EIS
22. Details of CWP impact mitigation strategies developed to minimise the impacts of CWP when releasing dam water into receiving waterways, including: a) Justification that any proposed CWP mitigation will be effective during dam operation, including under operating constraints imposed by requirements to manage algae in the dams, and in accordance with water quality conditions outlined in Schedule 11 of the Murray Darling Basin Plan and within the NSW *Cold Water Pollution Strategy Guidelines for Managing Cold Water Releases from High Priority Dams* (2011).	Appendix F, Chapter 7 Appendix I, Chapter 9
b) Proposed operating protocols for any CWP mitigation measures, and details of how CWP mitigation operating protocols are affected by operating protocols put in place to manage algae in the dams.	Appendix E Appendix F Appendix I Chapter 9
c) Identification of the total cost of any monitoring program that is proposed to evaluate CWP impacts and mitigation measures for the purpose of adaptive management.	The future cost of monitoring is not material to the environmental impacts of the project, and so has not been reported. Appendix E Appendix I Chapter 9
Aboriginal cultural heritage – including:	
23. Identification, description and assessment of impacts upon Aboriginal cultural heritage values that across the whole area that will be affected by the project, and any other area which the project could directly or indirectly impact.	EIS Chapter 9 Appendix J, Chapters 7–11
24. Documentation of impacts to Aboriginal cultural heritage in an Aboriginal Cultural Heritage Assessment Report (ACHAR) in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010) and guided by the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NMSW* (DECCW 2011), which must:	EIS Chapter 9 Appendix J
a) Be prepared in consultation with the local Aboriginal community and other relevant stakeholders.	EIS Chapter 5 EIS Chapter 9 Appendix J, Chapter 3
b) Be prepared in consultation with DPIE Biodiversity and Conservation Division regional branch officers.	Appendix J, Chapter 3
c) Document all surface survey and test excavations.	Appendix J, Chapter 7

Requirement	Where principally addressed within the EIS
d) Demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes.	EIS Chapter 9 Appendix J, Chapter 10 and Chapter 11
e) Outline measures proposed to mitigate impacts, and identify any conservation outcomes, where impacts are unavoidable.	Appendix E Appendix J, Chapter 10 and Chapter 11
f) Any objects recorded as part of the assessment must be documented and notified DPC Heritage.	AHIMS site cards have been developed and submitted to Heritage NSW for all newly documented sites.
Non-Aboriginal Heritage – including:	
25. An assessment of non-Aboriginal Heritage including potential impacts on the surrounding site and surrounding area, including any built landscape items, conservation areas, views and settings.	EIS Chapter 10 Appendix K, Chapter 9
26. A Statement of Heritage Impact (SOHI) prepared by a suitably qualified heritage consultant in accordance with the guidelines in the NSW *Heritage Manual*. The SOHI is to address the impacts of the proposal on the heritage significance of the site and adjacent areas and is to identify the following:	Appendix K, Chapter 9
a) All heritage items (state and local) within the vicinity of the site including built heritage, landscapes and archaeology, detailed mapping of these items, and assessment of why the items and site(s) are of heritage significance.	Appendix K, Chapter 7 and Chapter 8, Annexure A and Annexure B
b) Compliance with any relevant Conservation Management Plan/s.	Not applicable
c) The impacts of the proposal on heritage item(s) including visual impacts, required BCA and DDA works, new fixtures, fittings and finishes, any modified services.	Not applicable
d) The attempts to avoid and/or mitigate the impact on the heritage significance or cultural heritage values of the site and the surrounding heritage items.	Appendix K, Chapter 10
e) Justification for any changes to the heritage fabric or landscape elements including any options analysis.	Appendix K, Chapter 10
Land – including:	
27. An assessment of the impacts of the project on soils and land capability of the site and surroundings, including:	
a) Stability.	Appendix Q, Chapter 5

Requirement	Where principally addressed within the EIS
b) Acid sulphate soils.	Appendix Q, Chapter 4 Appendix R, Chapter 5
c) Salinity.	Appendix Q, Chapter 4 and Chapter 6
d) Soil erosion and sediment transport.	Appendix Q, Chapter 5 and Chapter 6 Appendix F, Annexure D
e) Acid drainage from waste rock, overburden, spoil, and excavated areas.	Appendix R, Chapter 5 and Chapter 6 Appendix T, Chapter 3
28. An assessment of the impacts of the project on landforms, including the short- and long-term geotechnical stability of any new landforms and any seismic or subsidence impacts.	EIS Chapters 4 and 12 Appendix F, Annexure J, Attachment C
29. An assessment of the risk of soil contamination based on the predicted geochemistry of any excavated rock and any previous disturbance of land.	Appendix R, Chapter 5 and Chapter 6
30. Characterisation of the nature and extent of any contamination on the site and surrounding area.	Appendix R, Chapter 4 and Chapter 5
31. Documented consultation with landholders within the potential project area, including the inundation area, for the purpose of determining where any known current or historic private landfills or waste disposal locations are situated.	Appendix R, Chapter 4
32. The procedure or assessment plan by which landfills, or waste disposal locations will be identified, contamination risks mitigated, and appropriately remediated and/or removed from site.	Appendix R, Chapters 3, 4, 5 and 6
33. Documentation of any actions that are necessary actions to be taken to prevent contamination of surface, groundwaters and soils should also be documented, determined in in consultation with NSW EPA.	EIS Chapter 5 Appendix R, Chapter 6
34. A description of any quarry established to provide material to the project, including the location, estimate of extraction, material characterisation, and determination of whether an environment protection licence under the *Protection of the Environment Operations Act 1997* would be required.	EIS Chapter 4 Appendix B1 Appendix C
35. The Proponent must assess the impacts on soil and land resources (including erosion risk or hazard). Particular attention must be given to the soil erosion and sediment transport consistent with the practices and principles in the current guidelines.	Appendix Q, Chapter 5 and Chapter 6

Requirement	Where principally addressed within the EIS
36. An assessment of the impacts of any proposed biodiversity offset areas (both on and off site) or supplementary biodiversity measures on prospective land for mineral exploration, or the potential for the sterilisation of mineral or extractive resources.	Appendix H, Chapter 7
37. A dated mineral, coal and petroleum titles and applications search through the NSW Department of Planning, Industry & Environment – Division of Resources & Geosciences MinView application, with results show on a map(s) including the location and extent of the project site and any associated infrastructure.	Appendix R, Annexure A
Flooding – including:	
38. An assessment, modelling and mapping of the impacts on flooding and floodplain behaviour during construction and operation of the project for a full range of flood events (including at least the 10%, 5%, 1% and 0.2% AEP), up to the probable maximum flood (PMF) in consideration of the *Floodplain Development Manual* (2005) and related guidelines. For the operational assessment, the assessment must be taken when the infrastructure is filled to fully supply level (FSL). The assessment must consider and document:	
a) Comparison with council and any relevant rural flood studies in the area and examine the consistency of modelling to existing studies acid sulphate soils.	Appendix F, Chapter 5
b) Assessment of consistency with Local Council and Rural Floodplain risk management plans.	Appendix F, Chapter 7 For dam failure: The Dam Safety Emergency Plan would be updated prior to dam commissioning.
c) Any increased impacts from flooding on other properties, assets and infrastructure.	Appendix F, Chapter 7 and Annexure J
d) Impacts of the development on flood behaviour resulting in altered potential flood affection flow velocities, flood levels, timing and flood duration and hazard categories where there is a change in flood behaviour leading to an increased risk of flooding.	Appendix F, Chapter 7 and Annexure J
e) Compatibility of the existing use of other property with the altered flood hazard and hydraulic categories of the land where there is a change in flood behaviour leading to an increased risk of flooding.	Appendix F, Chapter 7 and Annexure J
f) The extent and nature of impacts from managed floodplain inundation possible using the existing and proposed dam outlets.	Appendix F, Annexure J

Requirement	Where principally addressed within the EIS
g) In areas where there is a change in flood behaviour, the changes to the flood extents for modelled events should be mapped and the location of any changes to the existing case highlighted.	Appendix F, Annexure J
h) Assessment of the impact the project may have upon existing emergency management arrangements for flooding in consultation with Council and the NSW SES.	Appendix F, Chapter 7
i) Where there would be a change in emergency arrangements, including a reduction in the time to implement arrangements or an increase in frequency of needing to activate these arrangements, details of the emergency management, evacuation and access and contingency measures for construction and operational stages of the project need to be included considering the full range of floods including the PMF, in consultation with Council and the SES.	Appendix F, Chapter 7
j) Specific measures that are proposed to manage the risk to life from flood where there would be a change in risk to life, in consultation with Council and the NSW SES.	Appendix F, Chapter 7
k) Consideration of contingency plans for the management of traffic during construction in the event of road closures in the area.	Appendix S
l) An assessment of the risk and vulnerability of the project to changes in flooding behaviour resulting from climate change in accordance with appropriate current guidelines, and a justification for the use of those guidelines; and impacts the development may have on the social and economic cost to the community as a consequence of flooding where there would be a change in flooding impacts.	Appendix F, Chapter 7
39. An assessment, mapping and modelling of the impacts of reduced inundation and altered floodplain behaviour during construction and operation of the project for a range of water supply levels on other properties.	There will be no change during construction (see Appendix F, Chapter 6) Operational impacts detailed in: Appendix F, Annexure D Appendix G Appendix H Appendix I
Transport – including:	
40. Provide a Traffic Impact Assessment (TIA) addressing construction and operational traffic impacts prepared by a suitably qualified person in accordance with the *Austroads Guide to Traffic Management*, TfNSW Supplements to Austroads and the *RTA Guide to Traffic Generating Developments*. The TIA is to be developed in consultation with Transport for NSW.	Appendix S

Requirement	Where principally addressed within the EIS
41. For identified road safety concerns at specific locations along the proposed haulage routes, the TIA should be supported by a targeted Road Safety Audit, including construction phase traffic, undertaken by suitably qualified persons.	Appendix S, Chapter 4 and Annexure B
42. Identify controls for transport and use of any dangerous goods in accordance with *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*, the Australian Dangerous Goods Code and Australian Standard 4452: *Storage and Handling of Toxic Substances*.	Appendix S, Chapter 4
43. Provide details of any temporary or permanent river closures, or exclusion zones during construction and operation of the project identified in consultation with Transport for NSW.	Appendix S
Noise and Vibration – including:	
44. A quantitative assessment of potential demolition, construction, operational and transport noise and vibration impacts of the project. This is to include the identification of existing and potential future sensitive receivers and consideration of approved and/or proposed development in the vicinity.	Appendix U, Chapters 5–8
45. Details and justification of proposed noise mitigation and monitoring measures.	Appendix E Appendix U, Chapter 9 and Chapter 10
46. An assessment of blast impacts (if blasting is required) compliance with current guidelines.	Appendix U, Chapter 7
Air – including:	
47. A quantitative assessment of the potential air quality, dust and odour impacts of the project in accordance with the relevant guidelines. This is to include the identification of existing and potential future sensitive receivers and consideration of approved and/or proposed developments in the vicinity.	Appendix V, Chapters 3, 6 and 8
48. Details and justification of proposed air quality mitigation and monitoring measures.	Appendix E Appendix V, Chapter 12
Public Safety – including:	
49. Assessment of how Dam Safety NSW legislation, guidelines and guidance are to be considered in the design, construction and operation of the existing and proposed dams, including:	EIS Chapter 12 Appendix F, Annexure J
a) Identification of the consequence category of the dams.	EIS Chapter 12 Appendix F, Annexure J

Requirement	Where principally addressed within the EIS
b) Description of how dam safety will be managed for the life of the assets.	EIS Chapter 12 Appendix F, Annexure J
50. A Health Impact Assessment of the project in accordance with the current guidelines.	Appendix N
51. An assessment of the likely risks of the project to public safety including flood risk, subsidence risks, bushfire risks and the handling and use of dangerous goods.	EIS Chapter 12 Appendix F, Chapters 6 and 8 Appendix O
Social – including:	
52. Identifies and assesses the potential social impacts of the project, from the points of view of the affected community/ies and other relevant stakeholders.	Appendix L, Chapter 6 and Chapter 7
53. Assesses the existing recreational opportunities associated with the site, how these will be impacted by the project, and any proposed design measures to improve the recreational amenity of the site.	Appendix E Appendix L, Chapter 7
54. Assesses the significance of positive, negative and cumulative social impacts considering likelihood, extent, duration, severity/scale, sensitivity/importance, and level of concern/interest.	Appendix L, Chapter 7
55. Includes mitigation measures for likely negative social impacts and any proposed enhancement measure.	Appendix E Appendix L, Chapter 7 and Chapter 8
56. Provides details of how social impacts will be adaptively monitored and managed over time.	Appendix E Appendix L, Chapter 8
57. Assesses potential impacts to the electricity network, including infrastructure identified by Essential Energy, and proposed measures to avoid such impacts to the electricity network.	Appendix E Appendix L, Chapters 2, 7 and 8
58. Assesses impacts to agricultural businesses in the area during construction and operation of the project, including farmland and farm infrastructure, ancillary business activities (such as farm tourism and direct sales) and road access.	EIS Chapter 13 Appendix L, Chapter 7 Appendix P, Chapters 6, 7 and 8
59. Considers the Dark Sky Planning Guideline for any proposed development within 200 kilometres from the Siding Spring Observatory.	EIS Chapter 18 Appendix L, Chapter 7 Appendix W, Chapter 8

Requirement	Where principally addressed within the EIS
Visual – including:	
60. An assessment of the visual impact of the project and any ancillary infrastructure during construction and operation on: a) Views. b) Key sites and buildings. c) The existing dam. d) Heritage items including Aboriginal places and non-Aboriginal heritage. e) The local community.	EIS Chapter 18 Appendix W, Chapters 4, 5 and 7
61. Artist impressions, perspective drawings and view analysis of the project to illustrate how the project has minimised adverse visual impacts through design and landscaping.	Appendix W, Chapter 7
Public domain and public access – including:	
62. Identify the proposed public domain areas and linkages, including key vehicular, bicycle and pedestrian access points.	Appendix S
Waste – including:	
63. Details of the quantities and classification of all waste streams to be generated during construction, operation and decommissioning of the project, including spoil and other excavated materials.	Appendix T, Chapter 3
64. Details of waste storage, handling and disposal during construction and operation of the project and potential sources of disposal.	Appendix T, Chapter 3
65. Details of the measures that would be implemented to ensure that the construction and operation of the project is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014–2021*.	Appendix E Appendix T, Chapter 4
66. Details of the proposed scope of demolition works associated with the project, including any proposed works to the existing dam wall, identifying the likely volume of demolition waste and consideration of the potential for re-use of materials on site.	Appendix T, Chapter 3
Ecological sustainable development (ESD) – including:	
67. An assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level.	EIS Chapter 20 Appendix Y, Chapters 5 and 7
68. How ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated in the design and ongoing operation phases of the development.	EIS Chapter 20 Appendix E Appendix Y, Chapter 7

Requirement	Where principally addressed within the EIS
69. Consideration of the project against the current guidelines including targets and strategies to improve Government efficiency in use of water, energy and transport.	Appendix Y, Chapter 7
Climate change – including:	
70. Assessment of the risk and vulnerability of the project to climate change in accordance with the current guidelines, including any Regional Water Strategy and associated climate change modelling as relevant to the project.	EIS Chapter 19 Appendix F, Annexure A, Attachment A Appendix X, Chapters 3 and 5
71. Quantified specific climate change risks with reference to the NSW Government's climate projections and incorporate specific adaptation actions in the design.	Appendix F, Annexure A Appendix X, Chapters 6 and 7
72. An assessment of potential future climate variability impacts on the operation and management of the existing and proposed dam, proposed pipeline, and associated delivery works (such as water deliver by way of river operations), having regard to research on groundwater recharge and surface run-off and the NSW Climate Impact Profile.	Appendix F, Annexure A Appendix X, Chapters 5, 6 and 7
73. Assessment of the greenhouse gas emissions from the construction and operation of the project for the life of infrastructure, including:	Appendix V, Chapter 11
a) Documentation and justification of an appropriate methodology for estimating greenhouse gas emissions for the project as a water storage, or water reservoirs project where permanent land use change occurs.	Appendix V, Chapter 11
b) Assessment of carbon dioxide, nitrous oxide and methane gas emissions, including gases emitted by decomposing plants and organic material within the dam inundation areas.	Appendix V, Chapter 11
c) Quantitative assessment of Scope 1, 2 and 3 greenhouse gas emissions.	Appendix V, Chapter 11
d) An assessment of reasonable and feasible measures to minimise greenhouse gas emissions and ensure energy efficiency.	Appendix E Appendix V, Chapter 11
e) Project emissions as a proportion of NSW and Australia's greenhouse gas emissions budgets.	Appendix V, Chapter 11
f) Details of all proposed mitigation, management and monitoring measures.	Appendix E Appendix V, Chapter 12
Crown Lands – including:	
74. The proponent must assess potential impacts to crown lands and provide evidence of consultation with DPIE Crown Lands.	Appendix P, Chapter 6

Requirement	Where principally addressed within the EIS
Consultation	
During the preparation of the EIS, the proponent should consult with the relevant local, State or Commonwealth Government authorities, service providers, aboriginal community, community groups and affected landowners, including but not limited to: a) Registered Aboriginal Parties. b) Tamworth Regional Council. c) Local Councils whose water supply relies on surface waters impacted by the project. d) NSW DPI Fisheries. e) Department of Planning Industry and Environment – Biodiversity and Conservation. f) NSW Environment Protection Authority. g) Department of Planning Industry and Environment (Water Division). h) Transport for NSW. i) NSW DPIE Resources and Geoscience. j) Department of Premier and Cabinet, NSW Heritage. k) Murray Darling Basin Authority. l) Commonwealth Environmental Water Holder. m) NSW State Environmental Water Holder. n) Dams Safety NSW. o) NSW Crown Lands. p) Essential Energy.	EIS Chapter 5 Appendix D
In particular, the proponent must: a) Document a detailed community and stakeholder participation strategy which identifies who in the community has been consulted and a justification for their selection, other stakeholders consulted and the form(s) of the consultation including a justification for this approach.	EIS Chapter 5 Appendix D

Requirement	Where principally addressed within the EIS
b) Provide a report containing details of how the community and stakeholder participation strategy has been carried out (to date), including description of consultation that was carried out, including details of: i) Documentation of all consultation methods. ii) Timeframes of consultation. iii) Report upon any digital engagement strategies and demonstrate the relevance of digital engagement methods to potentially affected stakeholders. iv) Issues raised by the community and surrounding landowners and occupiers that may be impacted by the proposal. v) Details of how issues raised during community and stakeholder consultation have been addressed and whether they have resulted in changes to the proposal.	Appendix D