Appendix A

NSW Director-General's Requirements and ACT Scoping Document

Environmental impact statement

NSW GOVERNMENT
Department of Planning

Contact: Keiran Thomas
Phone: (02) 9228 6325
Fax: (02) 9228 6366
Email: keiran.p.thomas@planning.nsw.gov.au

Our Ref: S08/01311, 08_0160

Mr Mark Sullivan
Managing Director
ACTEW Corporation Ltd
GPO Box 366
CANBERRA CITY ACT 2601

Dear Mr Sullivan

Director General's Requirements for the Environmental Assessment of Proposed Murrumbidgee to Googong Water Transfer Project

I refer to your project application for the proposed Murrumbidgee to Googong Water Transfer Project (Application Number: 08_0160).

I have attached a copy of the Director-General's requirements (DGRs) for the Environmental Assessment of the project. These requirements have been prepared following the Planning Focus Meeting held on 4 September 2008 and in consultation with the relevant government agencies.

It should be noted that the Director-General's requirements have been prepared based on the information provided to date. Under section 75F(3) of the Act, the Director-General may alter or supplement these requirements if necessary and in light of any additional information that may be provided prior to the proponent seeking approval for the project.

I would appreciate it if you could contact the Department at least two weeks before you propose to submit the Environmental Assessment for the project to determine:

- the fees applicable to the application;
- consultation and public exhibition arrangements that will apply; and
- number and format (hard-copy or CD-ROM) of the Environmental Assessment that will be required.

Once you have lodged the Environmental Assessment, the Department will consult with the relevant authorities to determine the adequacy of the Environmental Assessment. Following this review period the Environmental Assessment will be made publicly available for a minimum period of 30 days.

If your proposal includes any actions that could have a significant impact on matters of National Environmental Significance, it will require an additional approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is your responsibility to contact the Department of Environment and Water Resources to determine if an approval under the EPBC Act is required for your proposal (6274 1111 or http://www.environment.gov.au).

Please note that the Commonwealth Government has accredited the NSW environmental assessment process for assessing impacts on matters of National Environmental Significance. As a result, if it is determined that an approval is required under the EPBC Act, please contact the Department immediately as supplementary Director-General's requirements will need to be issued.

You should keep the contact officer for this project, Keiran Thomas ((02) 9228 6325 or keiran.p.thomas@planning.nsw.gov.au), up to date with the progress of preparation of the Environmental Assessment, and seek clarification of any issues that may be unclear or may arise during this process.

Yours sincerely

7.10.08

Chris Wilson
Executive Director
Major Project Assessments
As delegate for the Director-General

Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Application	08_160
Project	Murrumbidgee to Googong Water Transfer Project. In particular, the project involves the transfer of up to 100ML per day of water from the Murrumbidgee River at Angle Crossing (ACT) to Burra Creek (NSW) near the Googong Reservoir. The component of the project within NSW includes: ▪ construction and operation of a pipeline from the ACT border to Burra Creek; and ▪ construction and operation of a discharge point at Burra Creek.
Site	The pipeline route traverses various properties between the ACT/NSW border at Williamsdale and Burra Creek in the Palerang local government area.
Proponent	ACTEW Corporation Ltd
Date of issue	7 October 2008
Date of Expiration	7 October 2010
General Requirements	The Environmental Assessment (EA) should be prepared to a high technical and scientific standard and include: ▪ an executive summary; ▪ a detailed description of the project including, construction methods, location and alignment of project components, operation details, including pumping technology and water quality standards to be applied, interfaces with watercourses, energy requirements and any staging; ▪ an assessment of the environmental impacts of the project, with particular focus on the key assessment requirements specified below; ▪ justification for undertaking the project with consideration of the benefits and impacts of the proposal; ▪ a draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring of the project; and ▪ certification by the author of the Environmental Assessment that the information contained in the Assessment is neither false nor misleading.
Key Assessment Requirements	▪ **Strategic and Project Justification –** the Environmental Assessment must clearly outline the strategic context of the project, having regard to existing and future development of the Australian Capital Territory and the Queanbeyan area, regional water supply and demand, and the effect on downstream users. The Environmental Assessment must describe the need for and objectives of the project; alternatives considered (including an assessment of the environmental costs and benefits of the project relative to alternatives) and provide justification for the preferred project taking into consideration the objects of the *Environmental Planning and Assessment Act 1979*. ▪ **Water Quality and Hydrology** – the Environmental Assessment must include an assessment of water quality impacts arising from the construction and operation of the project. With respect to construction, risks associated with laying pipelines, including across watercourses, erosion and sedimentation controls and management of any discharges from the project to prevent impacts to nearby watercourses must be addressed. With respect to operation, details of the quality of the transferred water should be provided particularly as it relates to existing water quality in both the Murrumbidgee River at Angle Crossing and Burra Creek must be assessed. ▪ **Flora and Fauna -** the Environmental Assessment must include a flora and fauna impact assessment taking into consideration impacts on any threatened species, populations, ecological communities and/or critical habitat and any relevant recovery plan in accordance with the DECC's *Guidelines for Threatened Species Assessment* (2005). This assessment must justify the need for clearing any vegetation and/ or habitat features and include an evaluation of potential impacts on waterways, aquatic ecosystems or riparian zones, including potential for weed infestation, impacts to fish passage, and the provision of any

	compensatory habitat/ biodiversity offsets. ▪ **Indigenous and Non-indigenous Cultural Heritage Impacts** – the Environmental Assessment must include an assessment of indigenous and non-indigenous cultural heritage values that may be impacted by the project with details on subsurface archaeological investigations undertaken for potential archaeological deposits. The assessment must address the information and consultation requirements of the draft *Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation* (DEC, 2005). ▪ **Traffic and Transport** – the Environmental Assessment must include an assessment of impacts to the local and regional road network and intersections during construction, including direct impacts from traffic rerouting and any access restrictions to property, as well as details on the nature/ mode of traffic generated from the project, transport routes and traffic volumes. Consideration must also be given to the impact of the project on any existing and proposed railway infrastructure in the area. ▪ **Noise and Vibration** – the Environmental Assessment must include an assessment of noise and vibration impacts during construction and operation and in a cumulative context with existing development. The assessment must take into account the following guidelines, as relevant: *Industrial Noise Policy* (EPA, 2000), *Assessing Vibration: A Technical Guideline* (DECC, 2006) and draft *New South Wales Construction Noise Guideline* (DECC, 2008). ▪ **Spoil Management** – – the Environmental Assessment must include estimates of likely spoil generation, including identification of known or potential contamination issues, and options for spoil management, reuse and/ or disposal. ▪ **Soils and Groundwater** – the Environmental Assessment shall include consideration of the impact of trenching and other underground work on soils, groundwater and subsurface flows. ▪ **General Environmental Risk Analysis** – notwithstanding the above key assessment requirements, the Environmental Assessment shall include an environmental risk analysis to identify potential environmental impacts associated with the project (construction and operation), proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures. Where additional key environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of this additional key environmental impact must be included in the Environmental Assessment.
Consultation Requirements	You should undertake an appropriate and justified level of consultation with relevant parties during the preparation of the Environmental Assessment, including: ▪ NSW Department of Environment and Climate Change; ▪ NSW Department of Primary Industries; ▪ NSW Department of Water and Energy, Southern Rivers Catchment Management and the Murray-Darling Basin Commission; ▪ NSW Roads and Traffic Authority and Railcorp; ▪ Commonwealth Department of Environment, Water, Heritage and the Arts; ▪ Palerang Council; ▪ the local community, including affected landowners. The Environmental Assessment must describe the consultation process, document all community consultation undertaken to date and identify the issues raised (including where these have been addressed in the Environmental Assessment).
Deemed refusal period	Under clause 8E(2) of the *Environmental Planning and Assessment Regulation 2000*, the applicable deemed refusal period is 60 days from the end of the proponent's environmental assessment period for the project.

NSW GOVERNMENT
Department of Planning

Record of Minister's opinion for the purposes of Clause 6(1) of the State Environmental Planning Policy (Major Projects) 2005

I, the Director-General of the Department of Planning, as delegate of the Minister for Planning under delegation executed on 26th February , 2007, have formed the opinion that the development described in the Schedule below, is development of a kind that is described in Schedule 1, Group 8, clause 26A of *State Environmental Planning Policy (Major Projects) 2005* namely development for the purpose of a pipeline in respect of which an application for a licence is made under the *Pipelines Act 1967* on or after the commencement of this clause. It is therefore declared to be a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* applies for the purpose of section 75B of that Act.

Schedule

A proposal by ACTEW Corporation Ltd for the Murrumbidgee to Googong Water Transfer Project, a pipeline located within the Palerang local government area, as generally described in the letter by ACTEW Corporation Ltd to the Department of Planning dated 4 August 2008.

SHaddad

Sam Haddad
Director-General
Department of Planning

Date: 14/ 8/ 2008.

Chris Webb

NSW GOVERNMENT
Department of Planning

10 July 2009

Contact: Joanne Glass
Phone: 02 9228 6575
Fax: 02 9228 6355
Email: joanne.glass@planning.nsw.gov.au

Our Ref: S08/01311, 08_0160

Mr Mark Sullivan
Managing Director
ACTEW Corporation Ltd
GPO Box 366
CANBERRA ACT 2601

RECEIVED
16 JUL 2009
ACTEW CORP

Dear Mr Sullivan

Proposed Murrumbidgee to Googong Water Transfer Project, Palerang Local Government Area

I refer to your letter dated 7 May 2009 regarding your request for declaration as a Critical Infrastructure Project for the above project by the NSW Department of Planning.

The above project is a major project under *State Environmental Planning Policy (Major Projects) 2005* and hence requires approval by the Minister for Planning under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Please be advised that on 26 June 2009, the NSW Minister for Planning formed the opinion that the above project is essential for the State for economic, social and environmental reasons and therefore has declared the project to be a critical infrastructure project under section 75C of the EP&A Act.

This decision was gazetted on 10 July 2009. The project is therefore declared to be a Critical Infrastructure project. I have enclosed a copy of the record of the Gazette for your information and reference.

Please do not hesitate to contact Joanne Glass on the above details should you wish to discuss this matter.

Yours sincerely

Neville Osborne
Team Leader – Water and Energy
Major Infrastructure Assessments

Department of Planning

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Order Declaring Development to be a Project under Part 3A of the Environmental Planning and Assessment Act 1979

I, the Minister for Planning, having formed the opinion that the development referred to in the Schedule is of State and regional environmental planning significance, declare that development to be a project to which Part 3A of the Environmental Planning and Assessment Act 1979, applies.

Dated: Sydney, 29 June 2009.

The Hon. KRISTINA KENEALLY, M.P.,
Minister for Planning

SCHEDULE

The construction and operation of a new electrified passenger metro railway between the Sydney CBD and Westmead. The project includes development for all associated or ancillary works, activities, uses, structures or facilities including (but not limited to):

1. construction (including demolition works), and operation (excluding maintenance) of the project;
2. any winning, obtaining or disposal of extractive material as part of the construction work of the project including transport of material and any associated access roads/rail tracks and sidings, conveyors, loading facilities and wharf facilities constructed for this purpose;
3. temporary batch plants, concrete casting yards, excavated material reprocessing facilities associated with construction activities;
4. access for construction, maintenance or operation of the project, including roads, access for pedestrians, cyclists, public transport and vehicles, and emergency egress/access facilities;
5. metro stations, including car parks, and associated transport interchanges (ie. bus, rail, light rail, taxi, coach, ferry, bicycle and kiss and ride facilities) and public amenities;
6. retail premises, business premises or community facilities in a metro station complex, including areas in the complex that customers use to gain access to station platforms;
7. train stabling, maintenance, administration and control facilities;
8. utilities / service installations or diversions, including power supply and protection of existing assets;
9. landscaping and public domain improvements; and
10. advertising structures.

This Order does not apply to activities comprising of:

(a) surveys;
(b) test drilling;
(c) test excavations;
(d) preliminary geotechnical investigations,
(e) or the like, associated with the design and environmental assessments required for the development of the Project prior to the commencement of construction.

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Order Declaring a Project to be a Critical Infrastructure Project under Section 75C of the Environmental Planning and Assessment Act 1979

I, the Minister for Planning, having formed the opinion that the project referred to in the Schedule is essential for the State for economic reasons, and for social reasons, and for environmental reasons, declare the project to be a critical infrastructure project under section 75C of the Environmental Planning and Assessment Act 1979.

Dated: Sydney, 26 June 2009.

The Hon. KRISTINA KENEALLY, M.P.,
Minister for Planning

SCHEDULE

The Murrumbidgee to Googong Water Transfer project (08_0160), being development for the purpose of a water pipeline and associated infrastructure for the transfer of up to 100ML/day from the ACT border at Williamsdale to Burra Creek within the Palerang local government area.

ACT Planning & Land Authority

Our Ref: A4499661

Mr Mark Sullivan
Managing Director
Actew Corporation Ltd
GPO Box 366
CANBERRA ACT 2601

Dear Mr Sullivan

DA 200802142: Proposed Murrumbidgee to Googong Water Transfer Pipeline and associated works – Environmental Impact Statement Scoping Application

The ACT Planning and Land Authority (the Authority) received the Application for Scoping Document (DA 200802142) for the development of the Murrumbidgee to Googong Water Transfer Pipeline and associated works, relating to Block 1411 district of Tuggeranong (block identifier only) on 29 September 2008.

The Project triggers the requirement for an Environmental Impact Statement (EIS) under Schedule 4 of the *Planning and Development Act 2007* (the Act).

Under Section 207 of the Act, I designate Actew Corporation Ltd as the proponent in relation to the above decision and as such they are required to prepare the EIS.

The EIS should be submitted to the Authority Customer Service Centre, Ground Floor South Building, 16 Challis Street, Dickson. The proponent will be required to lodge:

- A draft EIS that addresses each matter raised in the Final Scoping Document that has been prepared to meet the requirements of Section 216(2) of the Act.
- 10 complete digital copies including all appendices and attachments. A digital copy will also be used to place the draft EIS on the Authority's web site during the public notification period.
- Two hard copies of the draft EIS (including 1 unbound copy).

If you have any queries regarding advice on the draft EIS please contact the Impact Assessment Unit on telephone 6205 2855.

Yours sincerely

Ben Ponton
Director, Development Services
December 2008

Final Scoping Document

Under Part 8 of the *Planning and Development Act 2007*

APPLICATION NUMBER: 200802142

DATE LODGED: 29 Sept 2008 **DATE OF THIS NOTICE: 16 Dec 2008**

PROJECT: Murrumbidgee to Googong Water Transfer Pipeline and associated works

ADDRESS: Block 1411, Section 00, District of Tuggeranong (Block Identifier)

APPLICANT: ACTEW Corporation

CUSTODIAN:

FINAL SCOPING DOCUMENT

The ACT Planning and Land Authority received your application under Section 212(1) of the *Planning and Development Act 2007* (the Act) for Scoping of an EIS for the proposed Murrumbidgee to Googong Water Transfer Pipeline and associated works. Pursuant to Section 212(2) of the Act the ACT Planning and Land Authority has:

a) identified the matters that are to be addressed by an EIS in the relation to the development proposal; and
b) prepared a written notice (the ***final scoping document***) of the matters.

The attached document is the Final Scoping Document. The Draft Environmental Impact Statement must conform to the requirements of this Final Scoping Document. This document does not indicate approval, or support in any way, nor does it indicate approval in principle.

TERM OF SCOPING DOCUMENT

Pursuant to Section 215 of the Act, this Scoping Document is effective for 18 months from the day after the date of this notice.

NEXT STEPS

Pursuant to Section 216(2) of the Act, you (the Proponent) are now required to:

a) prepare a document (a ***draft EIS***) that addresses each matter raised in the Final Scoping Document for the proposal; and
b) give the draft EIS to the ACT Planning and Land Authority for public notification.

If you have any queries about the requirements outlined in this Final Scoping Document, please contact Geoff Reid via email or telephone to arrange a suitable time to discuss.

Ben Ponton
Director, Development Services
December 2008

Contact
Geoff Reid
ACT Planning & Land Authority
e:geoff.reid@act.gov.au
p:(02) 6205 2855

1 General Requirements for Draft Environmental Impact Assessment (EIS)

Draft EIS

The Draft EIS shall be prepared in accordance with this Final Scoping Document. The purpose of the Draft EIS is to identify and describe the potential positive and negative environmental, social, economic and cultural impacts of the Project, including cumulative, regional, temporal and spatial considerations.

The Draft EIS will:

a) assist the proponent, public and regulatory agencies in understanding the environmental and socio-economic consequences of the Projects' construction, operational and reclamation activities, and will assist the Proponent in its decision making;

b) address:
   - i) project impacts;
   - ii) mitigation options; and
   - iii) residual effects relevant to the assessment of the Project including, as appropriate, those related to other projects. As appropriate for the various types of impacts, predictions should be presented in terms of magnitude, frequency, duration, seasonal timing, reversibility and geographical extent;

c) discuss possible measures, including established measures to possible improvements based on research and development to:
   - i) prevent or mitigate impacts;
   - ii) assist in the monitoring of environmental protection measures; and
   - iii) identify residual environmental impacts and their significance including cumulative and regional development considerations;

d) include tables that cross-reference the Draft EIS to the Final Scoping Document; and

e) include a glossary of terms and a list of abbreviations to assist the reader in understanding the material presented.

A Completed EIS must form part of the Proponents subsequent Development Application to ACTPLA. A summary of the Completed EIS must also be included as part of the Development Application.

Cost of preparation of Draft EIS

The Proponent is responsible for the preparation of the Draft EIS and any related applications and associated costs.

1.1 Who undertook the scoping

ACTEW Corporation (the Proponent) is proposing to construct the Murrumbidgee to Googong Water Transfer Pipeline and associated works, Block 1411 (Block Identifier) Tuggeranong (the Project). The Project triggers the requirement for an Environmental Impact Statement (EIS) under Schedule 4 of the *Planning and Development Act 2007* (the Act). Accordingly the Proponent has applied to the ACT Planning and Land Authority (ACTPLA) for an EIS Scoping Document.

In response ACTPLA is obligated to:

a) identify the matters that are to be addressed by a Draft EIS in relation to the Project; and
b) prepare a written notice (the Final Scoping Document) of the matters to be addressed by the Draft EIS.

This document is the Final Scoping Document for the purposes of s212 of the Act and has been prepared and issued in accordance with any and all applicable requirements of the Act and the *Planning and Development Regulation 2008* (the Regulation).

1.2 Who to contact for further information

For matters concerning the scoping, EIS and assessment processes contact ACTPLA Impact Assessment Team on 02 6205 2855.

For matters concerning Project details contact the Proponent, ACTEW Corporation on 02 6175 2394.

1.3 Entities consulted during the scoping process

As required by s51(1) of the Regulation the following prescribed entities were consulted by ACTPLA in the preparation of this Final Scoping Document:

- Actew Distribution Limited;
- The Conservator of Flora and Fauna;
- The Emergency Services Commissioner;
- The Environment Protection Authority;
- The Chief Executive of the administrative unit responsible for Health Policy;
- The Chief Executive of the administrative unit responsible for Municipal Services; and
- The custodian of the Land (in relation to unleased land).

1.4 Submission requirements for Draft EIS

The Authority requires that the Proponent prepares a Draft EIS in the following form and format:

- The Draft EIS must be prepared in accordance with S50 of the *Planning and Development Regulations 2007*.
- The Draft EIS must be presented as an A4 document with all maps and drawings to be in either A4 or A3 format.
- The Proponent must supply 1 original bound hard copy and 1 unbound hard copy of the Draft EIS
- The Draft EIS must be presented for circulation and web posting in an electronic format.
- The Proponent must supply 10 CD/DVD copies of the Drat EIS.
- The Draft EIS must be written in plain English and avoid the use of jargon as much as possible.
- The Draft EIS must be provided in the same structure as described in Part 8.0 of this Final Scoping Document.
- Additional technical detail must be provided in appendices.

2 Non-technical summary

The purpose of the non-technical summary is to convey the most important aspects and options relating to the development Project to a member of the public in a concise and readable form.

- The structure of the non-technical summary should follow that of the EIS, and focus on the key issues and conclusions.
- Provide a summary of the recommendations

3 Purpose and structure

The purpose of this section is to explain why the EIS has been prepared and what it sets out to achieve. The EIS is a public document. Its purpose is to inform ACT Government Ministers, the ACT Planning and Land Authority and other ACT Government Agencies, and the Commonwealth Minister for the Environment about the impacts of the proposal. It will also inform the public of the scope, impacts and mitigation measures of the Project.

- Include an overview of the structure of the EIS document and its purpose.
- Identify any statutory approvals obtained and/or required for full implementation of the Project.

4 The environmental impact statement process

The purpose of this section is to make clear the methodology and objectives for environmental impact statements under the Act. The information provided should ensure members of the public and ACT government agencies are informed of the process to be followed.

4.1 Baseline studies

The baseline is an important element for describing the potential environmental impacts from the Project. The Purpose of this section is to set out the current and anticipated conditions if the Project did not proceed.

- Provide a description of the baseline information used for predicting the impact of the Project.
- Identify the studies or surveys that have been undertaken for the purposes of developing the Project and preparing the EIS;
  a. Summarise the results of studies and surveys undertaken to identify the natural resources required to implement the Project.
  b. The location, volume, tonnage and quality of natural resources required should be described (eg land, water, forests, energy etc)

4.2 Methodology of the EIS

The purpose of this section is to describe the methodology used to develop the EIS.

- Provide a description of the EIS process.
- Provide a separate section for each of the potential environmental impacts identified in this scoping document to be addressed in the EIS. Each separate section must:
  a. Describe the relevant environmental values and assets required to be assessed.
  b. Identify the findings and results of any relevant environmental investigations against each value.

c. Describe the environmental impacts on physical and ecological systems and human communities - including cumulative impacts and indirect impacts.
d. Analyse the significance of the potential environmental impacts of Project.
e. Specify the approach taken to environmental management, including impact prevention, mitigation and environmental offsetting.

- Make extensive use of maps, photographs, diagrams and other graphical methods to illustrate key environmental features, project alternatives, potential impacts and proposed responses.
- Outline the timing and decisions to be made for relevant stages of the Project.
- Report on criteria used for assessing the significance of impacts and the performance of alternatives.
- Identify the standard(s) against which the performance of the Project can be determined.

4.3 Information quality

- Information provided in the EIS should identify the sources of the information, state how recent the information is, indicate how any background studies were undertaken (eg intensity of field work sampling), how the reliability of the information was tested, and what uncertainties (if any) are in the information.

4.4 Consultation during preparation of the EIS

The purpose of this section is to list the stakeholders that the proponent must consult during the EIS process.

- The proponent or their consultant must consult with:
  - ACT Rural Landholders Association;
  - ActewAGL;
  - TransGrid;
  - United Ngunnawal Elders Council;
  - ACT Heritage Council;
  - Conservation Council of South-East Region and Canberra; and
  - Department of Environment, Water, Heritage and Arts.

5 Project description

The purpose of this section is to describe the Project through its lifetime of construction, operation maintenance and decommissioning. The section should provide context regarding the proposal's consistency with existing plans and lease and development conditions, and with legislation, standards, codes or guidelines available to monitor and control operations on site.

5.1 Overview

- Provide a statement regarding the Project's compatibility with the principles for environmental sustainability in Part 1 (Statement of Strategic Directions) of the Territory Plan.
- Summarize those elements of the environment that are likely to be impacted by the Project.
- Identify how the Project fits into the regional context in relation to existing biophysical impacts and potential for future cumulative impacts.

- Summarise the key issues and their relative significance and describe the significance of these impacts according to their intensity, extent, duration, frequency, or reversibility.
- Identify the level of certainty about the impacts.
- Provide justification for the Project with particular reference to the economic and social benefits, which the Project may provide. In particular a discussion on how the principles of sustainable development are addressed must be included.
- Assess and discuss the residual environmental impacts likely to persist following implementation of the applicable mitigation measures.

5.2 Location

The purpose of this section is to provide sufficient information to ensure that it is not necessary for someone to have visited the site to understand issues involved in the Project. The EIS should not assume that someone reading the document would have prior knowledge of the Project and/or the Project site.

- Provide maps/plans showing the precise location of the Project and in particular;
  a. The regional context of the Project should be described and illustrated on maps at suitable scales.
  b. The location and boundaries of the Project "work area" showing key aspects including proposed excavations, stockpiles, plant and equipment locations, water storages, buildings, bridges, culverts, hardstands, car parks, compounds, site office etc.
  c. The cadastre showing land tenures, in place or proposed.
  d. Real property description of the Project site(s).
  e. Catchment area boundaries.

5.3 Details of the lease for the land

- Provide details of the lease for any lands on which the Project is proposed or, where there is no lease for the land, details of the ownership or management arrangements for the lands on which the Project is proposed.
- Provide details of any joint venture partners.

5.4 Project objectives and scope

- Provide a statement of the objectives that have led to the concept of the Project. This should include an outline of any current use of the area or previous activities in regards to the Project.
- Summarise the predicted timescale for full implementation, and Project life.
- Briefly describe other projects already undertaken by the Proponent or other persons/entities within the Project area.
- Describe the receiving environment and key ecosystem processes, and discuss their significance in a regional context.

5.5 Alternatives to the development proposal

- Describe any alternatives considered in developing the Project. Provide sufficient detail to enable an understanding of the reasons for preferring certain options and courses of action and rejecting others.
- Discuss the consequences of not proceeding with the Project.
- Explain the interdependence of the Project in regard to how any infrastructure

requirements relate to the viability of the Project.
- Reasons provided in support of preferred options should include technical, commercial, social, and natural environment aspects.

5.6 Construction and operations

- The extent and nature of the Project's construction phase must be described. This description must include the type and methods of construction, construction equipment to be utilised and items of plant to be transported to the construction site(s). Any staging of the proposal should be described and illustrated showing site boundaries, development sequencing and timeframes.
- The nature, sources, location and quantities of all materials to be handled including storage and stockpiling of raw materials must be described.

6 Infrastructure

The purpose of this section is to provide descriptions, with concept and layout plans, of requirements for constructing, upgrading or relocating all infrastructures in the vicinity of the Project area. The matters to be considered include such infrastructure as roads, rail, bridges, jetties, tracks and pathways, dams and weirs, bore fields, power lines and other cables, wireless technology (e.g. microwave telecommunications), and pipelines for any services (whether underground or above).

6.1 General

- Indicate locations of all gas and water pipelines, power lines and any other easements.

6.2 Transport

- Provide sufficient information to make an assessment of how the road network will be affected;
  a. Describe arrangements for the transport of plant, equipment, products, wastes and personnel during both the construction and operational stages of the Project;
  b. Address the use of existing facilities and all requirements for the construction, upgrading or relocation of and transport related infrastructure;
  c. The volume, composition (types and quantities), origin and destination of goods to be moved including construction materials, plant, wastes and hazardous material;
  d. The volume, type and frequency of traffic generated by workforce personnel and service vehicles.
  e. Method of movement (vehicle types and numbers);
  f. Timing of vehicle movements;
  g. Details of vehicle traffic and transport of heavy and oversize indivisible loads (types and composition);
  h. Propose traffic routes;
  i. Need for increase road maintenance and upgrading;
  j. Indicate the corrective measures necessary to address adverse road impacts and cost involved;
  k. Impact on stake holders along any routes must be detailed and how such impacts will be managed;
  l. Describe the possible risks associated with ensuring emergency vehicle access if roads are blocked by construction activities.

6.3 Energy

- Describe all energy requirements, including electricity, natural gas, and/or solid and liquid fuel requirements for the construction and operation of the Project.

- Any use of renewable energy sources must be highlighted and explained.
- Energy efficiency measures must be described in the context of any Territory or Commonwealth policies.

6.4 Water supply and storage

- Provide information on water usage by the Project during construction and operational stages.
- Describe proposed water conservation and management measures.

6.5 Stormwater and drainage

- Provide a description of the proposed erosion/sediment control and stormwater management methods to be employed during construction and operation stages of the Project. This shall include final disposal methods and any associated works.

6.6 Sewerage

- Provide a description of the required sewage disposal for the Project during construction and operational stages.

6.7 Telecommunications

- Provide a description of the impacts on existing telecommunications infrastructure and identify the owners of that infrastructure.

7 Material Use and Waste

7.1 Material use

- Describe the use of recycled material to reduce the overall impact of the Project on natural resources.

7.2 Character and quantities of waste materials

- Describe the impact of the Projects wastes on identified values or assets.
- Identify any alternatives and describe the preferred methods to be used to deal with wastes and out line their impacts.

7.3 Waste Management

- Describe proposals for waste avoidance, reuse, recycling, treatment and disposal.

7.4 Toxic and Hazardous materials

- Detail the environmental values and assets with the potential to be affected by any hazardous materials. The degree and sensitivity of risk should be detailed.
- The procedures to prevent spillages, and the emergency plans to manage hazardous situations.

8 Land Values and Impacts

The purpose of this section is to provide details of the environmental protection measures incorporated in the planning, construction, operations, decommissioning, rehabilitation and associated works for the Project.

8.1 Land values

- Describe the existing land values that may potentially be affected by the Project.
- Define and describe practical measures for protecting or enhancing environmental

values;

a. Describe how nominated quantitative standards and indicators may be achieved.
b. Outline how the achievement of the objectives for environmental protection will be monitored, audited and managed.
c. Examine viable alternative strategies for managing environmental impacts.
d. Consider cumulative impacts of the Project over time in the dimensions of scale, intensity, duration and frequency. This should include assessment of water sheds affected by the Project.

8.2 Topography/geomorphology

- The topography of the Project area should be detailed with contours at suitable increments, shown with respect to Australian Height Datum. Significant features of the locality should also be included and labelled on the maps.
- Commentary should highlights the significant topographical features.

8.3 Geology

- Provide a description of the geological properties that may influence ground stability, occupational health and safety, rehabilitation programs, or the quality of wastewater leaving any areas disturbed by the Project.

8.4 Land disturbance

- Provide a strategy to minimise land disturbance. The methods to be used, eg backfilling, covering, re-contouring, topsoil handling and revegetation should be described.
- Topsoil management should consider the transport, storage and replacement of topsoil to disturbed areas. Minimisation of topsoil storage times (to reduce fertility degradation) should be addressed.

8.5 Soils and soil erosion

- Provide a soil survey of all sites affected by the Project. Particular reference should be given to the physical and chemical properties of materials that will influence erosion potential, stormwater runoff quality, or rehabilitation.
- Methods proposed to prevent or control erosion must be specified, in order to maintain land capability/suitability, and prevent significant degradation of local waterways by suspended solids.

8.6 Land contamination

- Describe the potential contamination of land from aspects of the Project including waste, acid generation from exposed sulfidic material and spills at chemical fuel storage areas.
- The ACT Government's *Strategic Plan for Contaminated Sites Management 1995* requires that potentially contaminated land be investigated at the earliest stages of the planning process to ensure a site is suitable for the proposed development. Potential land contamination along the proposed route(s) must be investigated and addressed.

8.7 Land use

- Provide a map and statement identifying the location of all existing residences, and the zoning of all affected lands according to the Territory Plan and any other applicable land use plans.
- Identify which existing residences and land uses have the potential to be ‘sensitive receptors’ to activities required for the construction and operational stages of the

Project. Identify and describe the measures to be employed to reduce the impact of the Project on these residences and land uses.

8.8 Landscape character and visual amenity

- Describe in general terms the existing character of the landscape that will be affected by the Project.
- Provide information in the form of maps, sections, elevations and photographs to address;
  a. Major views, view sheds, ridgelines and other features contributing to the amenity of the area, including assessment from private residences in the affected area along the route;
  b. The value of existing vegetation as a visual screen.
- Provide details of measures to be employed to mitigate or avoid the identified impacts.

9 Water Resources Values and Impacts

9.1 Water resource values and assets

- Describe the environmental values of the surface waterways of the affected area in terms of ;
  a. Environmental values;
  b. Sustainability, including both quality and quantity;
  c. Physical integrity, fluvial process and morphology of watercourses, including riparian zone vegetation and form;
  d. Any water resource plans, land and water management plans relevant to the affected catchment.

9.2 Surface waterways

- Describe surface watercourses and their quality and quantity in the area affected by the Project with an outline of the significance of these waters to the catchment in which they occur. This should include existing surface drainage patterns.
- The hydrological impacts of the Project must be addressed, particularly with regard to scouring and erosion, and changes to flooding levels and frequencies both upstream and downstream of the proposed Project site. If flooding levels are affected, modelling of afflux must be provided and illustrated with maps.
- Describe the present and potential water uses downstream affected by the Project.

9.3 Flood Studies

- Identify the history of flooding in the area including extent, levels duration and frequency.
- Provide details of how the Project will affect or be affected by flooding.
- Identify and explain any changes in the operation stage of the Project that might result under climate change scenarios.

9.4 Groundwater

- Identify and explain any impacts the Project may have on groundwater resources.

9.5 Water quality

- Assess and describe the current water quality of both the out take and receiving waters affected by the Project. A relevant range of physical, chemical and biological parameters must be measured to gauge potential impact.
- Discuss impacts on environmental flow requirements of both the out take and

receiving waters.
- Conduct a risk assessment for uncontrolled emissions to water due to system or catastrophic failure, implications of such emissions to human health and natural ecosystems, and list strategies to prevent, minimise and contain impacts.
- Describe the monitoring programs to asses the effectiveness of management strategies for protecting water quality of out take and receiving waters during the construction and operational stages of the Project.

10 Climate/Air Values and Impacts

10.1 Climate and air values

- Describe the existing environmental values of the area including values and areas that may be affected by any cumulative impacts (refer to any background studies in appendices).
- Potentially significant impacts should be described in sufficient detail for a reasonable conclusion to be drawn as to whether the Project could pose a significant risk to those assets.

10.2 Climate

- The vulnerability of the area to natural or induced hazards, such as floods and bushfires, should be addressed. The relative frequency and magnitude of these events should be considered together with the risk they pose to management of the proposed Project.

10.3 Climate change adaptation

- Provide an assessment of the development's vulnerabilities to climate change and describe possible adaptation strategies for the activity including:
  - A risk assessment of how changing patterns of rainfall and hydrology, temperature and extreme weather may affect the viability and environmental management of the Project.
  - The preferred and alternative adaptation strategies to be implemented.
- Assess the potential for premature retirement of the asset or un-programmed upgrades under climate change scenarios.

10.4 Greenhouse gas abatement

- Propose and assess greenhouse gas abatement measures, include a description of the proposed measures (alternatives and preferred) to avoid and/or minimise greenhouse gas emissions directly resulting from activities of the Project.

10.5 Air quality

- Describe the quantity and quality of all air emissions (including particulates, fumes and odours) from the Project during construction and operation. These would include those disturbed by wind on stockpiles and conveyors, or by transportation equipment, including emissions and from driving on unsealed roads).
- Describe the methods to be employed in the mitigation of impacts on air quality.

10.6 Lighting

- Outline the proposed management of lighting during construction and operation should be outlined.

10.7 Noise and vibration

- Discuss the magnitude, duration and frequency of any noise or vibration that might arise from the Project during construction and operation.
- Quantify, the potential environmental harm of noise and vibration at all potentially sensitive places, in particular, any place of residence. [identify the objectives, standards and indicators to be achieved].
- Address off-site noise and vibration impacts that could arise due to increased road use/vehicular traffic directly resulting from the Project.
- Provide details on any blasting which might cause ground vibration or fly rock on, or adjacent to, the site with particular attention given to places of residence, recreation, and general amenity.
- Include environmental impacts of noise and vibration on terrestrial animals and avifauna, and aquatic biology [identify potential species].
- Identify timing schedules for construction and operations that will minimise environmental nuisance and harm from noise.

11 Biodiversity and Nature Conservation Values, Assets and Impacts

11.1 Biodiversity values

- A discussion on the nature conservation values of the areas likely to be affected by the Project should be presented.
- Describe the biodiversity values of the affected area in terms of:
  a. Integrity of ecological processes, including habitats of rare and threatened species.
  b. Conservation of resources.
  c. Biological diversity, including habitats of rare and threatened species.
  d. Integrity of landscapes and places including wilderness and similar natural places.
  e. Aquatic and terrestrial ecosystems.
- Discussion should cover all likely direct and indirect environmental harm due to the Project on threatened flora and fauna, and ecological communities. [Both terrestrial and aquatic environments should be covered]

11.2 Environmentally Sensitive areas

- The proximity of the proposal to any environmentally sensitive areas such as protected areas, water supply catchment area should be shown on a map of suitable scale.
- Identify whether any of those environmentally sensitive areas could be affected, directly and indirectly, by the proposal. [Schedule 4.3 of the *Planning and Development Act 2007* gives an indication of the types of environmentally sensitive areas that are required to be considered.]

11.3 Threatened species and communities

- Describe the strategies for protecting any rare or threatened species and any obligations imposed by Territory or Commonwealth legislation or policy or international treaty obligations (i.e. JAMBA, CAMBA) should be discussed.
- Provide a map of rare threatened flora and threatened ecological communities should be provided at a suitable scale with descriptions.
- The description should contain a review of published information regarding the assessment of the significance of the vegetation to conservation, recreation, and scientific, educational and historical interests.
- The threatened terrestrial and riparian fauna occurring in the areas affected by the Project should be described, noting the broad distribution patterns in relation to

vegetation, topography and substrate. The description of the fauna present or likely to be present in the area should include:

a. Species diversity (i.e. a species list) and abundance of animals, including amphibians, birds, reptiles, mammals and bats.
b. Any species that are poorly known but suspected of being rare or threatened.
c. Habitat requirements and sensitivity to changes including movement corridors and barriers to movement.
d. The existence of feral or exotic animals.
e. Existence of any rare, threatened or otherwise significant species/communities in the study area, including discussion of range, habitat, breeding, recruitment, feeding and movement requirements, and current level of protection (e.g. any requirements of protected area management plans).
f. Use of the area by migratory birds, nomadic birds, and terrestrial fauna.

11.4 Native Vegetation

- The potential environmental harm to the ecological values of the area arising from the construction, operation of the Project including clearing, salvaging or removal of vegetation should be described.
- Include a discussion of the indirect impacts on remaining vegetation.
- Short-term and long-term impacts should be considered with commentary on whether the impacts are reversible or irreversible.
- Mitigation measures and/or offsets should be proposed for adverse impacts.

11.5 Invasive species

- The occurrence of pest plants and animals in the proposed development site should be described.
- Weed management strategies are required for containing existing weed species and ensuring no new declared plants are introduced to the area.

11.6 Aquatic biology

- Assessment of the aquatic and riparian environment will require detailed investigation of pumping and flow regime, drawdown effects, water quality, details on releases (volume, water quality and timing) from Tantangara and commitment to environmental flows development.
- Investigate and describe potential impacts to aquatic ecosystems, upstream and downstream of abstraction point, including but not limited to:
    - ACT threatened species (NC Act) -Trout Cod, Macquarie Perch, Murray River Crayfish & Silver Perch. Consideration to be given to straddling populations and impacts in NSW and ACT
    - Federal listed species (EPBC Act) -Trout Cod, Macquarie Perch, Murray Cod and Silver Perch
    - Fish passage issues, natural and man-made barrier including Angle Crossing, Gigerline Gorge, Tharwa Sandwash
    - Aquatic habitat
    - Abstraction impacts on fish
    - Recreational fishing
    - Alien species
    - Riparian Vegetation

- If no biota surveys/studies have previously been conducted in, and downstream, of the proposed Project area for both the out take and receiving waters, the aquatic flora and

fauna occurring in the areas affected by the proposal should be described, noting the patterns and distribution in the waterways and/or associated lacustrine. The description of the fauna and flora present or likely to be present in the area should include:

a. Fish species, mammals, reptiles, amphibians, crustaceans and aquatic invertebrates occurring in the waterways (out take and receiving waters) within the affected area, and/or those in any associated lacustrine environment.
b. Aquatic plants.
c. Aquatic and benthic substrate.
d. Habitat downstream of the Project (out take and receiving waters) or potentially impacted due to currents in associated lacustrine environments.

- Investigate and describe issues relating to the management of Burra Creek and Googong reservoir and their habitats in relation to sediment transfer, erosion, macrophytes, fish habitat availability, recreational fishing and riparian vegetation and impact to threatened fish populations (NSW (FM Act) and EPBC listed species).
- Alien species transfer or provision of additional habitat.
- Water quality and pathogen transfer.
- Investigate and describe mitigation methods for the construction and operational periods of the Project addressing issues of:
    - Environmental flows
    - Water quality
    - Fish passage improvements
    - Exclusion devices
    - Riparian zone rehabilitation and remediation
    - Aquatic habitat rehabilitation and remediation
    - Monitoring programs to investigate potential impacts in the Murrumbidgee and Googong Catchments including changing use.

12 Heritage values and Impacts

12.1 Heritage values

- Describe the existing cultural heritage values and assets that may be affected by the Project by reviewing previous archaeological work carried out within the immediate and general area (the study area) to identify previously recorded cultural heritage values and sites.
- A cultural heritage study should describe indigenous and non-indigenous cultural heritage sites and places, and their values. The study must include liaison with relevant indigenous community/communities concerning:
    a. Places of significance to that community (including archaeological sites, natural sites, story sites etc.
    b. Appropriate community involvement in field surveys.
    c. Any requirements by communities and /or informants relating to confidentiality of site data must be highlighted. Non-indigenous communities may have relevant information.
    d. A systematic survey of the Project area to locate and record indigenous and non-indigenous cultural heritage places.
- Evaluate the potential for further surface and subsurface deposits of cultural material in the study area with the above data, and through the analysis of landscape features e.g. soil, geology, slope and hydrogeology.
- Survey the study area to assess the current condition of recorded sites within the proposed development to test this model and to identify any additional surface sites

(ground truthing).
- Submit as an appendix a report detailing the results of archaeological investigation.

12.2 Heritage impacts

- Assess the impacts of the Project on heritage sites, including:
  a. An assessment of the significance of the cultural heritage sites/places.
  b. The impact of the Project on cultural heritage values.
- Describe any measures for protecting or enhancing cultural heritage values.

Note: Methodologies involving disturbance of Aboriginal places or objects will require approval from the Heritage Council prior to the commencement of any archaeological work. All programs of subsurface testing will be required to test the null hypothesis in view of recent observations that the current predictive model for Aboriginal sites in Canberra needs finer tuning in order to reliably identify PADs in the area. Specific requirements for reporting standards should be discussed with officers of the ACT Heritage Unit. Consultation, as appropriate, with the Representative Aboriginal Organisations is a requirement under the *Heritage Act 2004*.

13 Social impacts

13.1 Social values

- Describe the existing social values that may be affected by the Project. Consider:

a. Cultural issues - Aboriginal issues.
b. Community infrastructure and services - Recreational, cultural and leisure activities in relation to the affected area.

13.2 Social impacts

- Define and describe the practical measures for protecting or enhancing social values.
- Identify and discuss the potential environmental harm on the amenity of adjacent areas used for recreation, education, aesthetics, scientific or residential purposes.
- Provide a description of the overall net community benefit.

14 Health impacts

14.1 Hazard and risk

- Define and describe the practical measures for protecting people and places from hazards and risk associated with the Project during construction and operational stages. This should include how nominated quantitative standards and indicators may be achieved for hazard and risk management, and how the achievement of the environmental protection objectives will be monitored, audited and managed.
- The proponent must develop an integrated risk management plan for the whole of the life of the Project including construction, operation stages.
- Special attention should be given to those mitigation strategies designed to protect the values of any sensitive areas and any identified ecosystems of high conservation value within the area of possible impact from the Project.

15 Economic values and impacts

The purpose of this section is to define and describe the practical measures for protecting or enhancing economic values, to describe how nominated quantitative standards and indicators may be achieved for economic management, and how the achievement of the objectives for environmental protection will be monitored, audited and managed.

15.1 *Economic impacts and benefits*

- Provide estimates of the opportunity cost of the Project and the value of ecosystem services provided by natural or modified ecosystems to be disturbed or removed during development of the Project.
- The general economic benefits from the Project should be described.

16 Environmental Protection and Biodiversity Conservation Act 1999

16.1 Matters of NES

- The Draft EIS should identify potential impacts on any matters of national environmental significance (NES) that are identified in the 'controlling provisions' and applicable to the Project area.

16.2 Impacts on matters of NES

- Provide separate discussions (within the EIS or as under a stand-alone report as an appendix to the EIS) that exclusively, and fully, address the issues relevant to any matters of NES applicable to the Project.
- Identify details of any proceedings under Commonwealth, State or Territory law for the protection of the environment, or the conservation and sustainable use of natural resources against the Proponent.
- Details of the Proponents environmental policy and planning framework.

17 Management of unavoidable impacts

The purpose of this section is to require the proponent to consider ongoing management, monitoring or reporting regimes and include these in the Draft EIS.

17.1 Management strategies

- Describe the strategies to be used to ensure the environmental protection objectives are achieved and control strategies implemented eg. Continuous improvement framework including details of corrective action options, reporting (including any public reporting), monitoring, staff training, and any environmental management systems and how they are relevant to each element of the receiving environment of the Project.
- Include a table with environmental management commitments that will assist in the DA assessment and forming possible conditions of approval.

17.2 Monitoring programs

- Describe the monitoring parameters, monitoring points, frequency, data interpretation and reporting proposals.

17.3 Auditing programs

- Describe how progress towards achievement of the environmental protection objectives will be measured, reported and whether external auditors will be employed. Include scope, methods and frequency of auditing proposed.

18 Recommendations

- Provide a summary of any recommendations.

19 Other relevant information

The purpose of this section is to identify other impacts that are lesser in nature that can be included in a scoping document.

- The proponent may wish to include issues outside of the scope of the EIS, as a separate section of the EIS document. This allows the proponent to identify matters, not required to be addressed in the EIS, but that would be subject to merit track consideration and notification. The proponent may wish to identify these during the notification stage of the EIS process. This can provide additional context for members of the public regarding management of environmental issues, by ensuring that the public is aware that these issues will be addressed in the design. Public submissions on the EIS may be more focussed as a result.

20 Glossary of technical terms

- Provide a glossary of technical terms, acronyms and abbreviations used in the EIS.

21 References

- Throughout the EIS, factual information contained in the document should be referenced using standard referencing systems.
- A reference list must be included.

22 Required Appendices

22.1 Final scoping document for the EIS

- A copy of the final scoping document must be included in the EIS.
- Where it is intended to bind appendices in a separate volume from the main body of the EIS, the final scoping document should be bound with the main body of the EIS for ease of cross-referencing.
- Provide a separate document which cross references the findings of the relevant sections of the EIS, where the potential impacts and mitigation measures associated with the Project are described, with the corresponding sections Scoping Document.

22.2 Consultation report - the consultation report for a finalised (not Draft) EIS.

- The Consultation Report should describe the community consultation undertaken, including a summary of the representations received and the proponent's response to the representations received.
- Include the methodology used in the community consultation program including criteria for identifying stakeholders and the communication methods used.

23 Other Appendices

23.1 Study Team

- Provide the qualifications and experience of the study team and specialist sub-consultants and expert reviewers.

23.2 Specialist studies

- All reports generated on specialist studies undertaken as part of the EIS are to be included as appendices.

23.3 Research

- Any proposals for researching alternative environmental management strategies or for obtaining any further necessary information should be outlined in an appendix.