



Appendix A

Director-General's Requirements

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Response Table



Appendix A-1

Director-General's Requirements



Planning

Contact: Anna Timbrell
Phone: (02) 9228 6345
Fax: (02) 9228 6366
Email: anna.timbrell@planning.nsw.gov.au

Our ref: S09/0666
Your ref:

Mr Denis Novakovic
Project Manager – Capital Programme Delivery
TransGrid
PO Box A1000
SYDNEY SOUTH NSW 1235

Dear Mr Novakovic

Proposed Dumaresq to Lismore 330 kV Transmission Line – Inverell, Tenterfield, Kyogle, Richmond Valley and Lismore Local Government Areas - (Application Reference: 09_0150)

The Department has received your major project application and request for Director-General's Requirements (DGRs) for the above mentioned proposal.

The Director-General's Environmental Assessment Requirements are attached, pursuant to section 75F(2) of the *Environmental Planning and Assessment Act 1979*. These requirements are based on the information provided to date, including the Planning Focus Meeting held on 24 August 2009 and through consultation with relevant government agencies. 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.

Please 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;
- relevant land owner notification requirements;
- consultation and public exhibition arrangements that will apply;
- options available in publishing the Environmental Assessment via the Internet; and
- number and format (hard-copy or CD-ROM) of the Environmental Assessment that will be required.

Prior to exhibiting the Environmental Assessment, the Department will review the document to determine if it adequately addresses the DGRs. The Department may consult with other relevant government agencies in making this decision. If the Director-General considers that the Environmental Assessment does not adequately address the DGRs, the Director-General may require the Proponent to revise the Environmental Assessment to address the matters notified to the Proponent. Following this review period the Environmental Assessment will be made publicly available for a minimum period of 30 days.

If your project 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

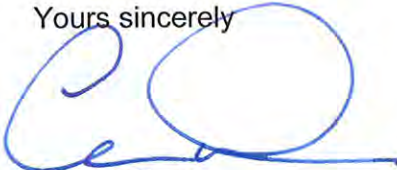
Bridge St Office 23-33 Bridge St Sydney NSW 2000 GPO Box 39 Sydney NSW 2001
Telephone (02) 9228 6111 Facsimile (02) 9228 6191 DX 10181 Sydney Stock Exchange
Website planning.nsw.gov.au

responsibility to contact the Department of the Environment, Water, Heritage and the Arts to determine if an approval under the EPBC Act is required for your project (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.

If you have any enquiries about these requirements, please contact Ms Anna Timbrell, Environmental Planning Officer, Major Infrastructure Assessments on 02 9228 6345 or via email (anna.timbrell@planning.nsw.gov.au).

Yours sincerely



11.9.09

Chris Wilson
Executive Director
Major Project Assessments
as delegate of the Director-General

Director-General's Requirements

Section 75F of the Environmental Planning and Assessment Act 1979

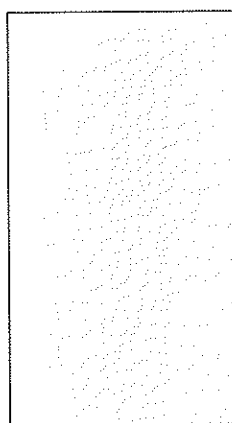
DUMARESQ TO LISMORE 330 kV TRANSMISSION LINE – INVERELL, TENTERFIELD, KYOGLE, RICHMOND VALLEY AND LISMORE LOCAL GOVERNMENT AREAS

ENVIRONMENTAL ASSESSMENT REQUIREMENTS UNDER PART 3A OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Project	<p>Construction of 330 kV transmission line, between Dumaresq substation near Bonshaw and Lismore substation and associated works. The transmission line will be approximately 220 km in length and is divided into two sections: Study Area East – Lismore to Tenterfield – approximately 130 km in length, utilising the existing 132 kV transmission line easement wherever possible (the easement would be widened from 45 metres to 60 metres), and; Study Area West – Tenterfield to Dumaresq – approximately 90 km in length requiring a new 60 metre wide easement. The project includes:</p> <ul style="list-style-type: none"> • site preparation and steel tower foundation work; • construction of 35-40 metre high steel towers at 250-300 metre intervals, and up to 400 metres over gullies; • decommissioning and removal of the existing 132 kV transmission line between Lismore and Tenterfield; • pre-construction activities; • access track upgrading and/or construction as required; • vegetation clearing along the 60 metre wide easement as required for access and safety clearance purposes; • conductor and earth wire stringing between each of the erected towers; • upgrade of the Lismore and Dumaresq substations including new 330 kV line switchbays and electrical equipment installed within switchyards; • other substation works; • possible upgrade works to other substations.
Site	Transmission easements and properties between Dumaresq and Lismore.
Proponent	TransGrid
Date of Issue	11 September 2009
Date of Expiration	11 September 2011
General Requirements	<p>The Environmental Assessment must be prepared to a high technical and scientific standard and must include:</p> <ul style="list-style-type: none"> • an executive summary. • a detailed description of the project clearly defining the proposal corridor including construction, staging, operation and the construction of access roads; • consideration of any relevant statutory provisions including the consistency of the project with the objects of the <i>Environmental Planning and Assessment Act 1979</i>; • an assessment of the key issues outlined below, during construction, operation and decommissioning; • a draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project; • a conclusion justifying the project taking into consideration the environmental social and economic impacts of the project, the suitability of the site, and the public interest; and • certification by the author of the Environmental Assessment that the information contained in the Assessment is neither false nor misleading.

<p>Key Assessment Requirements</p>	<p>The Environmental Assessment (EA) must include assessment of the following key issues:</p> <ul style="list-style-type: none"> • Strategic Planning and Project Justification – the Environmental Assessment must provide a strategic assessment for the project, including justification of the need, scale, scope and location of the project in relation to predicted electricity demand and reliability requirements, predicted transmission constraints, alternative strategies, and the strategic direction of the region and the State regarding the State electricity supply and demand and electricity generation technologies. Particular reference should be made to the outcomes of any Regulatory Test under the National Electricity rules, TransGrid's Annual Planning Review process and any non-network options proposed for the relief of identified transmission constraints. • Land Use Planning Impacts – the Environmental Assessment must provide an analysis of the suitability of the proposed transmission route with respect to potential land use conflicts with existing and future surrounding land uses including urban growth areas, agricultural uses, State forests/timber resources, highway upgrades, conservation areas including Special Management Zones in State forests, and areas of significant scenic or visual value. The EA must also include an assessment of the potential impacts of the project to influence changes to future land use character in proximity of the site. Reference should be made to the Far North Coast Regional Strategy. • Ecological Impacts – the Environmental Assessment must include a justified and tiered assessment approach for impacts of the project on native vegetation, threatened species, populations, ecological communities and their habitats for each bioregion (including both terrestrial and aquatic ecology, and all groundwater dependent ecosystems likely to be impacted). The Environmental Assessment must: <ul style="list-style-type: none"> ◦ identify bioregions that will be or may be impacted by the project; ◦ demonstrate a design philosophy of impact avoidance on ecological values, and in particular, ecological values of high significance; ◦ for each identified bioregion, include a screening of species, populations, ecological communities and habitats based on ecological significance and the potential for impact as a consequence of the project; ◦ for species, populations, ecological communities and habitats with high ecological significance and significant potential for impact, include sufficient information to demonstrate the likely impacts, consistent with <i>Guidelines for Threatened Species Assessment</i> (DEC & DPI, July 2005) ◦ for other species, populations, ecological communities and habitats, a general bioregion-based assessment of ecological impacts associated with the project; ◦ consider region-based ecological outcomes, including habitat connectivity and distribution of species, and how these may be impacted by the project; ◦ detail measures to avoid or mitigate impacts, including any proposed compensatory habitat or off-set strategy, that describes the scale, scope and timing of implementation; • Heritage Impacts – the Environmental Assessment must include sufficient information to demonstrate the likely impacts on Aboriginal heritage values/items and outline proposed mitigation measures in accordance with the Draft <i>Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation</i> (DEC, 2005). The Environmental Assessment must demonstrate effective consultation with Aboriginal communities has been undertaken in determining and assessing impacts, developing options and selecting options and mitigation measures. • Human Amenity Impacts – the Environmental Assessment must include a justified and tiered assessment approach for impacts on human amenity, including noise and vibration, air quality (dust and odour) and traffic impacts during construction and operation of the project. The Environmental Assessment must: <ul style="list-style-type: none"> ◦ identify human receptors that will be or may be impacted by the project; ◦ characterise potentially impacted human receptors in terms of receptor type
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	<p>(e.g. isolated receptors, receptor areas (such as residential zones) and sensitive receptors (such as schools, hospitals etc.));</p> <ul style="list-style-type: none"> ◦ identify those receptors and receptor types likely to be significantly impacted by the project; ◦ include a framework for the mitigation, management and monitoring of noise and air quality impacts during construction of the project, particularly with respect to receptors and receptor types likely to be significantly impacted by the project and with specific reference to noise- and vibration-intensive construction works/ activities (drilling, blasting, bulk excavation, heavy vehicle movements etc.) around receptors and major centres. <ul style="list-style-type: none"> • Hazards and Risk Impacts – the Environmental Assessment must include a screening of potential hazards on site to determine the potential for off site impacts, particularly at the substations, and any requirement for a Preliminary Hazard Analysis (PHA). The Environmental Assessment must include an identification of any contaminated land affected by the proposal. The Environmental Assessment must also include an assessment of the risk to human health from Electric and Magnetic Fields (EMFs) associated with the project, with reference to Australian Radiation Protection and Nuclear Safety Agency standards. The Environmental Assessment should demonstrate the application of the principles of Prudent Avoidance in relation to EMFs. The Environmental Assessment shall specifically consider on-going maintenance and safety management of the project, including potential impacts on and from bushfires and floods. • Noise Impacts – the Environmental Assessment must include an assessment of the noise impacts of new and/or upgraded substations, in accordance with the <i>NSW Industrial Noise Policy</i> (EPA, 2000). • Visual Amenity Impacts – the Environmental Assessment must include an assessment of the visual impacts associated with the proposal, including the impact on local and regional views by transmission lines and substations. Impacts on the values of adjacent wilderness areas should be considered. Alternative pole designs should be presented and assessed and the potential for undergrounding in sensitive locations should also be assessed. • Construction-related Impacts – the Environmental Assessment must include details of construction-related impacts associated with the proposal, including noise impacts against the criteria provided in <i>Interim Construction Noise Guideline</i> (DECC, July 2009), water quality impacts, weed management and soil and erosion implications. The Environmental Assessment must also indicate how these impacts would be mitigated and managed, consistent with best environmental practice. • Traffic and Transport Impacts – the Environmental Assessment must address the construction and operational traffic impacts of the project including proposed routes, timing and traffic volumes. <p>General Environmental Risk Analysis – notwithstanding the above key assessment requirements, the EA must 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 these additional key environmental impacts must be included in the EA.</p>
Consultation Requirements	<p>You must undertake an appropriate and justified level of consultation with the following parties during the preparation of the EA:</p> <ul style="list-style-type: none"> • NSW Department of Environment, Climate Change and Water • NSW Department of Industry and Investment • NSW Roads and Traffic Authority and Australian Rail Track Corporation • NSW Health • NSW Rural Fire Service • Land and Property Management Authority • Livestock, Health and Pest Authorities (Rural Lands Protection Board)

	<ul style="list-style-type: none"> • Inverell Shire Council • Tenterfield Shire Council • Kyogle Council • Richmond Valley Council • Lismore City Council • NSW Aboriginal Land Councils/NSW Native Title Service • Local Aboriginal Land Council • each landowner and land occupier within and adjacent to the corridor of the proposed development sites and transmission route, and • the local community <p>The Environmental Assessment must clearly indicate issues raised by stakeholders during consultation, and how those matters have been addressed in the Environmental Assessment.</p>
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Planning

Contact: Anna Timbrell
Phone: (02) 9228 6345
Fax: (02) 9228 6366
Email: anna.timbrell@planning.nsw.gov.au

Our ref: S09/00666

Mr Denis Novakovic
Project Manager – Capital Programme Delivery
TransGrid
PO Box A1000
SYDNEY SOUTH NSW 1235

Dear Mr Novakovic

Proposed Dumaresq to Lismore Transmission Line – Inverell, Tenterfield, Kyogle, Richmond Valley and Lismore Local Government Areas – (MP 09_0150)

For your information and reference during the preparation of the Environmental Assessment, please find attached copies of letters sent to the Department during the preparation of the Director-General environmental assessment requirements for the above project.

Response was received by the Office of Water, Department of Environment, Climate Change and Water, Department of Industry & Investment, Land and Property Management Authority, Inverell Shire Council and Kyogle Council

If you have any queries regarding the above, please contact Anna Timbrell, on the above contact details.

Yours sincerely

11/9/09

Neville Osborne
Team Leader – Water and Energy
Major Infrastructure Assessments

Your reference : S09/00666
Our reference : FIL07/123-02 DOC09/42147
Contact : Peter A. Ekert, 66402514 peter.ekert@environment.nsw.gov.au



Neville Osborne
Manager – Water and Energy
Major Infrastructure Assessments
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Anna Trimbell

- 9 SEP 2009

Dear Ms Trimbell

RE: Proposed Dumaresq to Lismore 330kV Transmission Line – Inverell, Tenterfield, Kyogle, Richmond Valley and Lismore Local Government Areas (MP 09_0150)

I refer to your request for the Department of Environment, Climate Change and Water (DECCW) requirements for the environmental assessment (EA) in regard to the above proposal received by DECCW on 28 August 2009.

DECCW has considered the details of the project as provided by the Applicant and has identified the information it requires to assess the project concept plan in Attachment A. The proponent should ensure that the EA is sufficiently comprehensive and detailed to determine the extent of the impact of the proposal.

In summary, DECCW's recommended key information requirements for the project are:

1. the impacts on local surface water quality;
2. the impacts of the project on threatened species and their habitat;
3. the impacts of the project on Aboriginal cultural heritage values;
4. an assessment of any land contamination; and
5. the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts identified in 1-4 above.

Should you require any further information please contact Peter A. Ekert 66402514.

Yours sincerely

JON KEATS

**Head, Industry and Waste Unit North Coast
Environment Protection and Regulation Group**

Att: Attachment A DECCW EA Requirements
Attachment B Guidance Material

PO Box 498, Grafton NSW 2460
NSW Government Offices,
49 Victoria Street, Grafton NSW
Tel: (02) 6640 2500 Fax: (02) 6642 7743
ABN 30 841 387 271
www.environment.nsw.gov.au

Department of **Environment and Climate Change** NSW



Attachment A – Department of Environment, Climate Change and Water's Environmental Assessment Requirements

Environmental impacts of the Project

1. The following environmental impacts of the project need to be assessed, quantified and reported on:
 - Water quality
 - Contaminated Land
 - Noise
 - Threatened Species
 - Aboriginal cultural heritage
2. These should be assessed in accordance with the relevant guidelines listed in Attachment B.
3. Describe mitigation and management options that will be used to prevent, control, abate or mitigate identified environmental impacts associated with the project and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
4. Based on the information provided to the Department of Environment, Climate Change and Water (DECCW), the applicant will not require an Environment Protection Licence because the activity is not scheduled under the *Protection of the Environment Operations Act 1997*.

Water Quality

The environmental outcomes for the project in relation to water should be:

- There is no pollution of waters during the construction and operational phases of the development;
- There is no inconsistency with any relevant Statement of Joint Intent established by the Healthy Rivers Commission; and
- It is acceptable in terms of the achievement or protection of the River Flow Objectives and Water Quality Objectives.

The Environmental Assessment (EA) should document the measures that will achieve the above outcomes.

Contaminated Land

The EA must document the identification, assessment and management of any land contamination to ensure that the land is not allowed to be put to a use that is inappropriate because of the presence of contamination. Under the *Contaminated Land Management Act 1997* there is a responsibility to notify the DECCW of sites that pose a significant risk of harm to human health or the environment.

Noise

The environmental outcomes should include the following:

- The proposal must be designed, constructed, operated and maintained so that there are no adverse impacts from noise (including traffic noise).

Impacts of the project on threatened species and their habitat

Vegetation Clearing

The vegetation on site has the potential to support a wide range of threatened flora and fauna species. Any identified threatened species should be discussed in detail.

The EA will need to include a comprehensive assessment of the following:

1. A field survey of the site should be conducted and documented in accordance with the draft 'Guideline for threatened species assessment' and 'Threatened Biodiversity and Threatened Species Assessment – Guideline For Developments and Activities'.
2. Likely impacts on threatened species and their habitat need to be assessed, evaluated and reported on. The assessment should specifically report on the considerations listed in Step 3 of the draft guideline.
3. Describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on threatened species and their habitat. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
4. The EA needs to clearly state whether it meets each of the key thresholds set out in Step 5 of the draft guideline.

Impacts of the project on Aboriginal cultural heritage values

Standard requirements

1. The Environmental Assessment (EA) should address and document the information requirements set out in the draft 'Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation' (Department of Environment and Conservation 2005) and the 'Part 3A EP&A Act Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation' (Department of Planning and DEC 2007). These documents are available from the Department of Environment, Climate Change and Water (DECCW) and the Department of Planning upon request.
2. The EA should include surveys by suitably qualified archaeological consultants and include evidence of consultation with traditional Aboriginal custodians.
3. The EA should identify the nature and extent of impacts on Aboriginal Cultural Heritage values across the project area and the strategies employed to avoid / minimise these impacts. If impacts are proposed as part of the final development, clear justification for such impacts should be provided.
4. The EA should assess the archaeological and Aboriginal significance of the site's Aboriginal Cultural Heritage values.
5. Describe the actions that will be taken to avoid or mitigate impacts of the project on Aboriginal Cultural Heritage values. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
6. The EA needs to clearly demonstrate that effective community consultation with Aboriginal communities has been undertaken in assessing impacts, developing options and making final recommendations. The Department of Environment, Climate Change and Water (DECCW)

Department of **Environment and Climate Change** NSW

supports broad-based Aboriginal community consultation and as a guide the 'Interim Community Consultation Requirements for Applicants (DECC 2005)' provides a useful model to follow.

7. If impacts on Aboriginal cultural values are proposed as part of the final development, an assessment of the regional significance of the values to be impacted, the extent to which these values are protected elsewhere in the landscape and consideration of the proposed impacts in the context of 'inter generational equity' should be undertaken.

Note: If the EA is relying on past surveys it is critical to confirm that the surveys are consistent with the requirements of the above Part 3A guidelines. Furthermore, if any new sites or objects are located, they should be recorded on NPWS site cards and registered on the Aboriginal Heritage Information Management System (AHIMS). AHIMS contact details: Phone: (02) 9585 6470, address: Lvl 6, 43 Bridge Street, Hurstville, NSW, 2220, e-mail: ahims@environment.nsw.gov.au.

Attachment B - Guidance Material

Water Quality

- National Water Quality Management Strategy: Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000)
- NWQMS Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC 2000)
- Healthy Rivers Commission Report into Coastal Lakes and Statement of Joint Intent
- The relevant targets within the State Water Management Outcomes Plan

Wastewater

- National Water Quality Management Strategy: Guidelines for Sewerage Systems - Effluent Management (ARMCANZ/ANZECC 1997)
- National Water Quality Management Strategy: Guidelines for Sewerage Systems - Use of Reclaimed Water (ARMCANZ/ANZECC 2000)
- Environmental Guidelines for the Utilisation of Treated Effluent by Irrigation (NSW DEC 2004)
- Environment and Health Protection Guidelines: 'Onsite Sewage Management for Single Households', February 1998 (Silver Book).

Stormwater

(Note: some of these documents will be revised in 2006)

- Managing Urban Stormwater: Soils and Construction (NSW Landcom, 2004)
- Managing Urban Stormwater: Source Control (EPA 1998)
- Managing Urban Stormwater: Treatment Techniques (EPA 1998).

Contaminated Land

- Managing Land Contamination: Planning Guidelines - SEPP55 - Remediation of Land, Department of Urban Affairs and Planning and NSW EPA, 1998;
- Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites (Environment Protection Authority (EPA) 1997);
- Contaminated Sites – Guidelines on Significant Risk of Harm and Duty to Report (EPA, 1999).

Noise and Vibration

- NSW Industrial Noise Policy (EPA, 1999)
- NSW Environmental Criteria for Road Traffic Noise (EPA, 1999)
- Chapter 171 Noise Control Guideline, *Construction Site Noise, Environmental Noise Control Manual, 1994.*

Threatened Species Impacts

- Threatened Biodiversity and Threatened Species Assessment – Guideline For Developments and Activities – Working Draft 2004. Available from DECCW.
- Draft Guidelines For Threatened Species Assessment - Available from Department of Planning.

Assessing Aboriginal Cultural Heritage Impacts

- Draft Guidelines For Aboriginal Cultural Heritage Impact Assessment and Community Consultation - Available from Dept of Planning
- Interim Community Consultation Requirements for Applicants
- Aboriginal Cultural Heritage Standards and Guidelines Kit - Available shortly on-line through DECCW's webpage.

<http://www3.environment.nsw.gov.au/npws.nsf/Content/Protecting+Aboriginal+objects+and+places>

Department of **Environment and Climate Change** NSW



Office of Water

Department of Planning
Anna Timbrell
GPO Box 39
Sydney NSW 2001
1 September 2009

Contact: Christie Jackson
Phone: 02 6701 9652
Fax: 02 6701 9682
Email: christie.jackson@dnr.nsw.gov.au

Dear Ms Timbrell,

Subject: Request for Director-General's Requirements Dumaresq to Lismore 330kv
Transmission Line

Thank you for your email dated the 27 August 2009, seeking the NSW Office of Water's (NOW) Director-General's Requirements (DGR's) for the proposed Dumaresq to Lismore 330kv Transmission Line. The Department has reviewed the information provided and our specific requirements to be included in the DGR's are outlined as follows and were also mentioned via telephone during the planning focus meeting on the 24 August 2009. I have attached the Departments general requirements for major project developments.

Riparian Management: Whilst a controlled activity approval is not required under the *Water Management Act 2000* for Part 3A developments, any works within riparian areas should be consistent with the Department of Water and Energy's Controlled Activity Guidelines (2008) and State policies. The environmental assessment (EA) should outline all works affecting riparian areas including any clearing, creek crossings, roads and tracks etc. The EA should also outline any mitigation and management measures such as erosion and sediment control. The EA should also outline all creeks and rivers affected by the proposal and how each will be managed, in particular major rivers or creeks that require specific management measures.

Water Issues: It is unclear from the planning focus meeting if water is required for the development. The EA should outline all water requirements for the development (ie during construction and post construction) and where the water will be sourced ie groundwater or surface water. All water required for the development must be accounted for and appropriately licenced with the Department. Any monitoring bores associated with the development will need to be licenced. If all proposed sources are identified early, the Department is able to provide accurate advice regarding our requirements.

Dewatering of tower footings may become an issue in low lying areas particularly towards the coast. If groundwater is likely to be intercepted as a result of the works then a dewatering licence is required, which must be obtained prior to groundwater interception.

Department of
Environment, Climate Change and Water NSW



At present, both the *Water Act 1912* and *Water Management Act 2000* are active with water sharing plans guiding the management of water in some areas. If the proposal is within a gazetted water sharing plan area the assessment is required to demonstrate consistency with the rules of the water sharing plan. The development route may also be affected by current embargoes for new water licences, however further information can be provided on this if required.

The EA will need to include an assessment of the potential effects of the development on groundwater and surface water quality and quantity, surface water hydrology, other groundwater and surface water users, acid sulphate soils and groundwater dependent ecosystems.

Acid Sulphate Soils: The environmental assessment must identify all areas of acid sulphate soils and identify mitigation and management options in accordance with the ASSMAC guidelines. The Department has concerns about the potential effects of ASS on groundwater quality.

Farm Dams Policy: Any dams, ponds or sediment basins to be constructed as part of the proposed development must be consistent with the NSW Farms Dam Policy.

Flooding Issues: The EA should discuss any flooding issues associated with the development and any impacts on landholders.

If you require clarification on any of the above please don't hesitate to contact me on (02) 6701 9652.

Yours sincerely,



Christie Jackson

Planning and Assessment Coordinator

NSW Office of Water

General Assessment Requirements for Major Project Proposals Under Part 3A of *Environmental Planning & Assessment Act 1979*

The NSW Office of Water (NOW) provides the following advice for consideration:

Relevant Legislation

The assessment is required to take into account the requirements of the following legislation (administered by NOW), as applicable:

- *Water Act 1912*
- *Water Management Act 2000 (WMA)*

In particular, proposals and management plans should be consistent with the Objects (s.3) and Water Management Principles (s.5) of the WMA.

Water Sharing Plans

Gazetted Water Sharing Plans (WSPs) prepared under the provisions of the WMA establish rules for access to, and the sharing of water between the environmental needs of the surface or groundwater source and water users. If the proposal is within a gazetted WSP area the assessment is required to demonstrate consistency with the rules of the WSP.

Refer to: <http://www.dnr.nsw.gov.au/water/plans.shtml>

Relevant Policies

The assessment is required to take into account the following NSW Government policies, as applicable:

- *NSW Groundwater Policy Framework Document - General*
- *NSW Groundwater Quantity Management Policy*
- *NSW Groundwater Quality Protection Policy*
- *NSW State Groundwater Dependent Ecosystem Policy*
- *NSW State Rivers and Estuaries Policy*
- *NSW Sand and Gravel Extraction Policy for Non-Tidal Rivers*
- *NSW Wetlands Management Policy*
- *NSW Farm Dams Policy*
- *NSW Weirs Policy*
- *NSW Coastal Policy*

In addition assessments should consider the following strategies:

- *NSW Salinity Strategy*
- *NSW Water Conservation Strategy*

The majority of these documents can be found at:

<http://www.dnr.nsw.gov.au/water/legislation.shtml>

Guidelines

The assessment is required to take into account the following former Department of Water and Energy's Guidelines for Controlled Activities (February 2008), as applicable:

- _ Riparian corridors (and associated Vegetation Management Plans)
- _ Watercourse crossings
- _ Laying pipes and cables in watercourses
- _ Outlet structures
- _ In-stream works

Refer to: http://www.dnr.nsw.gov.au/water/controlled_activity.shtml

Groundwater

NOW is responsible for the management of groundwater resources so they can sustain environmental, social and economic uses for the people of New South Wales.

Groundwater Source

The assessment is required to identify groundwater issues and potential degradation to the groundwater source and provide the following:

- Details of the predicted highest groundwater table at the development site.
- Details of any works likely to intercept, connect with or infiltrate the groundwater sources.
- Details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Describe the flow directions and rates and the physical and chemical characteristics of the groundwater source.
- Details of the predicted impacts of any final landform on the groundwater regime.
- Details of the existing groundwater users within the area (including the environment) and include details of any potential impacts on these users.
- Assessment of the quality of the groundwater for the local groundwater catchment.
- Details of how the proposed development will not potentially diminish the current quality of groundwater, both in the short and long term.
- Details on preventing groundwater pollution so that remediation is not required.
- Details on protective measures for any groundwater dependent ecosystems (GDEs).
- Details of proposed methods of the disposal of waste water and approval from the relevant authority.
- Assessment of the need for an Acid Sulphate Management Plan (prepared in accordance with ASSMAC guidelines).
- Assessment of the potential for saline intrusion of the groundwater and measures to prevent such intrusion into the groundwater aquifer.
- Details of the results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Details of any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.

- An assessment of any groundwater source/aquifer that may be sterilised as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Licensing

All proposed groundwater works, including bores for the purpose of investigation, extraction, dewatering, testing or monitoring must be identified in the proposal and an approval obtained from NOW prior to their installation.

Groundwater Dependent Ecosystems (GDEs)

The assessment is required to identify any impacts on GDEs. GDEs are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater. GDEs represent a vital component of the natural environment. GDEs can vary dramatically in how they depend on groundwater from having occasional or no apparent dependence through to being entirely dependent. GDEs occur across both the surface and subsurface landscapes ranging in area from a few metres to many kilometres. Increasingly, it is being recognised that surface and groundwaters are often interlinked and aquatic ecosystems may have a dependence on both.

Ecosystems that can depend on groundwater and that may support threatened or endangered species, communities and populations, include:

- Terrestrial vegetation that show seasonal or episodic reliance on groundwater.
- River base flow systems which are aquatic and riparian ecosystems in or adjacent to streams/rivers dependent on the input of groundwater to base flows.
- Aquifer and cave ecosystems.
- Wetlands.
- Estuarine and near-shore marine discharge ecosystems.
- Fauna which directly depend on groundwater as a source of drinking water or that live within water which provide a source.

The *NSW Groundwater Dependent Ecosystem Policy* provides guidance on the protection and management of GDEs. It sets out management objectives and principles to:

- Ensure the most vulnerable and valuable ecosystems are protected.
- Manage groundwater extraction within defined limits thereby providing flow sufficient to sustain ecological processes and maintain biodiversity.
- Ensure sufficient groundwater of suitable quality is available to ecosystems when needed.
- Ensure the *precautionary principle* is applied to protect GDEs, particularly the dynamics of flow and availability and the species reliant on these attributes.

A number of gazetted WSP list and map priority GDEs and set out the management strategies and actions for sharing and protecting groundwater quality, quantity and dependent ecosystems.

Surface Water

NOW is responsible for the sustainable management of rivers, estuaries, wetlands and adjacent riverine plains.

Watercourse/Riparian

The assessment is required to consider the impact of the proposal on the watercourses and associated riparian vegetation within the site and provide the following:

- Identify the sources of surface water.
- Details of stream order (using the Strahler System).
- Details of any proposed surface water extraction, including purpose, location of existing pumps, dams, diversions, cuttings and levees.
- Detailed description of any proposed development or diversion works including all construction, clearing, draining, excavation and filling.
- An evaluation of the proposed methods of excavation, construction and material placement.
- A detailed description of all potential environmental impacts of any proposed development in terms of vegetation, sediment movement, water quality and hydraulic regime.
- A description of the design features and measures to be incorporated into any proposed development to guard against long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrological regime and sediment movement patterns and the identification of riparian buffers. (See note below)
- Details of the impact on water quality and remedial measures proposed to address any possible adverse effects.

The *Rivers and Foreshores Improvement Act 1948 (RFIA)* has now been repealed and the controlled activity provisions in the *WMA* have commenced. The provisions relating to controlled activities replaced the *RFIA* from 4 February 2008. Riparian corridors form a transition zone between terrestrial and aquatic environments and perform a range of important environmental functions. The protection or restoration of vegetated riparian areas is important to maintain or improve the geomorphic form and ecological functions of watercourses through a range of hydrologic conditions in normal seasons and also in extreme events.

Although Part 3A Major Projects are exempt from requiring a controlled activity approval (s91 of *WMA*), the assessment is required to take into account the objectives and provisions of relevant legislation and guidelines.

Note: Recommended Core Riparian Zones (as applicable):

- _ Minimum of 10m for any intermittently flowing 1st order watercourse;
- _ 20m for any permanently flowing 1st order watercourse or any 2nd order watercourse;
- _ 20m – 40m (merit based assessment) for any 3rd order or greater watercourse.

[Refer to DWE Guidelines for Controlled Activities (February 2008) – Riparian Corridors available via: http://www.naturalresources.nsw.gov.au/water/controlled_activity.shtml]

Water Management Structures/Dams

NOW is responsible for the management and licensing of these structures under water legislation. If the proposal includes existing or proposed water management structures/dams, the assessment is required to provide information on the following:

- Date of construction (for existing structure/s).
- Details of the legal status/approval for existing structure/s.
- Details of any proposal to change the purpose of existing structure/s.
- Details if any remedial work is required to maintain the integrity of the existing structure/s.
- Clarification if the structure/s is on a watercourse.
- Details of the purpose, location and design specifications for the structure/s.
- Size and storage capacity of the structure/s.
- Calculation of the Maximum Harvestable Right Dam Capacity (MHRDC).
- Details if the structure/s is affected by flood flows.
- Details of any proposal for shared use, rights and entitlement of the structure/s.
- Details if the proposed development/subdivision has the potential to bisect the structure/s.

DWE's Farm Dams Assessment Guide provides details on harvestable rights and the calculation of the MHRDC. Refer to: <http://www.dnr.nsw.gov.au/water/dams.shtml>

Basic Landholder Rights

The *WMA* identifies Basic Landholder Rights (BLRs) for access to water whereby landholders over an aquifer or with river or lake frontage can access water for domestic (household) purposes or to water stock without the need for a water licence (although a works approval may still be required). This has the potential to impact inequitably on existing licensed water users (under a WSP) in the case where riparian frontage continues to be subdivided, creating new basic rights for water extraction. If this is an issue for the proposal the assessment should identify any potential for creation of new BLRs along the frontage to major waterways or over any sensitive aquifers. For those subdivisions fronting rivers/lakes, innovative subdivision design which allows the creation of additional lots without direct river/lake frontage or utilises collective or community title to manage the use of any existing BLR could provide a satisfactory way of managing this issue whilst still allowing for subdivision. Subdivisions over a sensitive aquifer however, may be more limited in using this approach.

Sustainable Water Supply

Many gazetted WSPs to-date have identified particular surface and groundwater systems that are currently over-allocated (that is, water licence volumes issued to landholders operating in these catchments exceed the sustainable volumes/flows within these systems). In the case of over-allocation, the systems have subsequently been embargoed and no new water licences are to be issued within these catchments. Any new or expanded development within such catchments will therefore be unable to obtain any new water entitlements directly and will have to enter the water trading market (if available within that catchment) to seek additional water. Therefore, there can be no guarantees of obtaining additional water via this mechanism and there is the potential of restrictions on further development within such catchments. Whilst there is provision in the *WMA* to allow for limited growth in Town Water Supplies (TWS) this could still impact subsequently on other water users.

The assessment is required to address the issue of provision of a sustainable water supply for any project proposal. The assessment should include Water Management Plans detailing how a sustainable and efficient water supply can be sourced and implemented with minimal reliance on accessing valuable surface and groundwater resources. Through the implementation of BASIX, Integrated Water Cycle Management and Water Sensitive Urban Design, any proposed development must also be able to exhibit high water use efficiency. Access to information on sustainability can be found via: http://www.deus.nsw.gov.au/business_industry.asp



Land and Property
Management Authority

Neville Osborne
Manager – Water and Energy
Major Infrastructure Assessments
Department of Planning
GPO Box 39
SYDNEY NSW 2001

**Crown Lands Division
Far North Coast**

Level 1, 76 Victoria Street
PO Box 272
GRAFTON 2460
T (02) 6640 3400
F (02) 6642 5375
www.lands.nsw.gov.au

Our reference: 09/08672, 09/08665, 09/08669
Your reference: S09/00666

04 September 2009

Attention: Anna Timbrell

Dear Ms Timbrell

**Re: Proposed Dumaresq to Lismore 330kV Transmission Line – Inverell, Tenterfield,
Kyogle, Richmond Valley and Lismore Local Government Areas (MP 09 0150)**

I refer to your letter dated 26 August 2009 seeking key issues and assessment requirements from the Land and Property Management Authority (LPMA) additional to the Draft Director-General's Environmental Assessment Requirements (DGRs) for a proposal by TransGrid (the Proponent) to construct and operate a 220 km 330 kV transmission line between Dumaresq and Lismore.

In providing this preliminary assessment, the LPMA has relied upon shapefiles of the proposed transmission line corridor provided by URS Australia Pty Ltd on 19 August 2009. It is understood the DGRs will inform the development of an environmental impact assessment (EIA) for the proposed development. Please note the review of the EIA by the LPMA may be subject to applicable fees and charges.

Potentially affected Crown parcels

Preliminary investigations by the LPMA suggest the proposed transmission line will impact upon a number of Crown parcels (that is, Crown lands under the *Crown Lands Act 1989* and Crown public roads under the *Roads Act 1993*), and that some or all of these Crown parcels may be held under a tenure from the LPMA. The Proponent will be required to apply to the LPMA for a land status search to identify the specific Crown parcels affected. The land status search will be subject to applicable fees and charges, and can be requested in writing from the Grafton LPMA Office for the entirety of the study area.

Once the results of the status search have been provided, the Proponent will be responsible for communicating with all affected Crown tenure holders, reserve trusts and land managers in relation to the proposed development.

The LPMA encourages the restoration of existing levels of public access to Crown parcels adjoining the proposed transmission line corridor upon completion of all construction operations (with asset protection and public health and safety issues afforded due consideration).



Where the Proponent proposes works that are not of a minor repair nature (that is, involving alterations to the natural terrain through cutting, filling or drainage) to facilitate access across Crown public roads to the transmission line, the Proponent will be required to obtain the concurrence of the relevant local councils to ownership of the roads being transferred to such councils, as per s.151 of the *Roads Act 1993*. This concurrence is to be included in the EIS.

Where the councils provide concurrence to the transfer of ownership and the LPMA does not object to the councils granting approval to construct or upgrade the roads, action will then be taken in terms of s.151 to transfer ownership of the roads to the councils. The councils will then set the standards for road construction and any other requirements on the basis they will become the roads authorities under the *Roads Act 1993* in respect of the roads.

Please note, Crown public roads along the proposed transmission line corridor may be subject to current road closing and purchasing applications. Similarly, Crown land held under leasehold tenure may be subject to current freeholding actions. Road closures and tenure conversions may proceed whilst the EIS is under development, with the result the Proponent will end up negotiating directly with individual landholders in relation to the affected parcels rather than with the LPMA. The aforementioned land status search will identify such Crown parcels.

With respect to Crown parcels falling outside the proposed transmission line corridor, the Proponent may not:

- encroach upon the parcels;
- remove any vegetation from the parcels; or
- stockpile any materials or store any equipment, machinery or plant on the parcels, without the prior approval of the LPMA.

Additional DDRs

The LPMA requests the following additional key issues and assessment requirements also form part of the DGRs for the proposal:

- Detailed plans and drawings should cover the full development footprint and indicate the locations of towers and other electricity transmission infrastructure.
- Plans and drawings should also indicate the locations of new waterway crossings and access roads *as well as* existing crossings and roads expected to be upgraded as part of the development.
- Crossings across Crown waterways are to be constructed, upgraded and maintained to permit or maintain fish passage (as per: *'Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings'*¹).
- The types of conductors proposed to be used should be specified, and the implications of the use of such for local wildlife, including flying mammals, should be addressed in the EIA.
- The EIA should incorporate, or provide for the development of, detailed vegetation management and erosion and sediment control plans for the proposed transmission line corridor.
- Descriptions of the staging of the development should include anticipated sequencing of activities, such as the acquisition of any interests in land.

Acquisition of interests in land

The Proponent will be required to acquire an easement to accommodate the proposed transmission line corridor over sections of Crown lands affected by the corridor, pursuant

¹ Fairfull, S. And Witheridge, G. (2003) *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings*. NSW Fisheries, Cronulla, 16 pp.



to s.29 of the *Land Acquisition (Just Terms Compensation) Act 1991* (LA (JTC) Act). The Proponent will require the concurrence of the LPMA to acquire the easement, and the acquisition shall be subject to applicable fees and charges, as well as compensation payable under s.39 of the LA (JTC) Act to an amount assessed by a registered valuer at the date of gazettal of the acquisition. Additionally, a plan of survey will need to be lodged with the Land and Property Information Unit of the LPMA.

Please note that the Minister for Lands may not be the only owner of Crown lands along the proposed transmission line corridor for the purposes of obtaining agreement under s.30 of the LA (JTC) Act. Crown lands may be subject to land claims under the *Aboriginal Land Rights Act 1983* and native title claims under the *Commonwealth Native Title Act 1993*. The land status search will identify any such claims.

The Proponent may have an obligation under s.24MD of the *Commonwealth Native Title Act 1993* to accord potential native title holders with certain procedural rights in relation to the acquisition. In particular, s.24MD requires notice of the acquisition to be given to any representative Aboriginal and Torres Strait Islander bodies for the area concerned, as well as any registered native title claimants in relation to land or waters in the area affected.

Accordingly, in NSW, a notice should be sent to both the NSW Aboriginal Land Council (formerly appointed as the representative Aboriginal body) and NSW Native Title Services Limited (the entity that currently performs the functions of the Aboriginal representative body but which has not been formally recognised).

Notices to the NSW Aboriginal Land Council should be addressed as follows:

**Manager Legal Division
NSW Aboriginal Land Council
33 Argyle Street
PARRAMATTA NSW 2150**

Notices to NSW Native Title Services Limited should be addressed as follows:

**Manager
NSW Native Title Services Ltd
Suite 15
245 Chalmers Street
REDFERN NSW 2016**

Please feel free to contact Ian Hanson on 6640 3436 or Ian.Hanson@lpma.nsw.gov.au, or Rodney O'Brien on 67703101 or Rodney.O'Brien@lpma.nsw.gov.au, if you have any questions or concerns in relation to Study Area East or Study Area West respectively.

Yours sincerely,



Ian Hanson
Senior Environmental Officer
Crown Lands Division
For Study Area East



Rodney O'Brien
Program Manager Land Management
Crown Lands Division
For Study Area West





File: S10.19.1
Author: K J Clydsdale, Development Control Officer
Your file: S09/00666

7 September 2009

Ms. Anna Timbrell
Major Infrastructure Assessments
NSW Department of Planning
GPO Box 39
SYDNEY NSW 2001



Dear Ms. Timbrell,

RE: PROPOSED DUMARESQ TO LISMORE 330kV TRANSMISSION LINE – INVERELL, TENTERFIELD, KYOGLE, RICHMOND VALLEY AND LISMORE LOCAL GOVERNMENT AREAS (MP 09 0150)

I refer to the above and wish to thank you for providing Council with the opportunity to comment on the draft environmental assessment requirements which have been prepared for the proposal.

Council wishes to advise that we agree with the requirements outlined in the draft assessment and do not have any further matters/issues to be included within the requirements.

Please contact Council's Development Control Officer Mr. Kendall Clydsdale on 02 67288 281 if you have any further queries.

Yours faithfully,

BRETT MCINNES
DIRECTOR CIVIL & ENVIRONMENTAL SERVICES

All communications to be addressed to:
The General Manager
PO Box 11 KYOGLE
NSW 2474
AUSTRALIA



8 September, 2009

The Manager – Water and Energy
NSW Government Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Sir

PROPOSED DUMARESQ TO LISMORE 330Kv Transmission Line

With reference to the above and in response to your correspondence on this matter dated 26 August, 2009 I advise as follows.

Kyogle Council has reviewed the draft environmental assessment requirements and requests that the following additional requirements be included in the criteria/terms of reference for the applicant:-

- i) All access tracks which join roads under the control of Kyogle Council will require vehicular accesses to be constructed to Council's requirements;
- ii) Any Council roads to be used for transport of heavy equipment or materials for the project are to be assessed for their ability to carry anticipated loads without damage to road pavements or bridges;
- iii) Minimum clearances above roads from overhead cables and from road centreline for structures to be observed and provision made for possible future realignments where applicable;
- iv) Ecological impacts – preservation of roadside vegetation as far as possible and protection of known wildlife corridors which may cross the easement.

Thank you for the opportunity to provide input into this process.

Yours sincerely

John Hession

Director Planning and Environmental Services

ADMINISTRATION OFFICE
Stratheden Street
Kyogle NSW 2474 AUSTRALIA
Phone 02 6632 1611
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International Code (+ 61 2)
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Website: www.kyogle.nsw.gov.au



FOR FURTHER INFORMATION

PLEASE QUOTE THIS REFERENCE



Our Ref: TRIM09/6136 Inw09/14755

Director, Major Infrastructure Assessment
Department of Planning
GPO Box 39
SYDNEY NSW 2001



8 September 2009

Attention: Ms Anna Trimbell

Dear Ms Trimbell

**Re: Key Issues and Assessment Requirements MP09/0150
Dumaresq to Lismore 330kV Transmission Line – Inverell, Tenterfield, Kyogle,
Richmond Valley and Lismore LGAs**

Thank you for your letter of 26 August 2009 requesting Industry & Investment NSW (I&I NSW) outline assessment requirements for the above mentioned project application.

I&I NSW has both statutory and advisory responsibilities in relation to development and land use planning matters. I&I NSW is an advocate of sustainable development and profitable and sustainable primary industries through appropriate access to and wise management of natural resources. Through Forests NSW, I&I NSW also has a commercial and operational interest in land use planning matters including land within the study corridor.

Agricultural, Forestry and Fisheries divisions within I&I NSW will have an ongoing interest in this proposal. If appropriate further information may be sent indicating the degree of ongoing interest from the Minerals Division.

Forestry issues

The draft requirements generally address the key issues of concern to Forests NSW. These relate to land use particularly in relation to impacts on State forest and timber resources on State forest and other Crown-timber lands, ecological and environmental impacts from the clearing and track and trail maintenance and possible construction and ongoing maintenance and safety risks on and from bushfires. It is suggested that the reference to conservation areas under land use planning impacts could be amended to specifically also include the impact on Special Management Zones on State forest. For further information on Forestry issues please call Planning Manager, North East Region, Forests NSW, Mr John Murray on 6650 5125.

Division of Primary Industries, Aquatic Habitat Protection Unit
1243 Bruxner HWY WOLLONGBAR NSW 2477
Tel: 02 6626 1397 Fax: 02 6626 1377
ABN 51 734 124 190 www.industry.nsw.gov.au

Fisheries issues

The proposal, particularly provision of access points over waterways during construction and for maintenance of the transmission line could have direct and significant impacts on populations of two threatened fish species, the Eastern Freshwater Cod (which is also listed under the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999*) and the Purple Spotted Gudgeon. Installation of the transmission line may also necessitate ongoing management (thinning / clearing) of riparian vegetation which is identified as a key threatening process because of the importance of healthy riparian vegetation for aquatic communities and consequently recreational fishing activities.

To ensure the environmental assessment incorporates investigations that will adequately facilitate assessment of the proposal I&I NSW's Aquatic Habitat Protection Unit seek that the Director General's Requirements be broadened to encompass the following matters:

Fish Friendly Watercourse Crossings: The EA should identify the location of proposed permanent and temporary watercourse crossings necessitated by the proposal and justify these against alternate access routes. Where crossings are to be installed a brief assessment of the waterway and a description or draft design of the proposed crossing is required. Waterway assessments and design of crossings should be consistent with fish friendly guidelines and information available at:

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0003/202692/Fish-friendly-waterway-crossings-Policy-and-guidelines.pdf

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0004/202693/Why-do-fish-need-to-cross-the-road_booklet.pdf

Where existing crossings can be used but require upgrading the EA should outline the scope of works and whether the works will exacerbate and prolong the life of an existing barrier to fish passage.

Riparian Vegetation Management: The likely height of transmission lines at waterway crossings should also be indicated with reference to existing riparian vegetation and endemic riparian vegetation. The EA should outline where ongoing management of riparian vegetation will be required and outline the regularity and scale of these works.

For further information on fisheries issues please contact Fisheries Conservation Manager (North) Patrick Dwyer on 6626 1397.

Agricultural issues

Industry & Investment NSW (I&I NSW) is developing a guideline outlining the typical agricultural issues that infrastructure development should address. The issues and comments identified below are based on this guideline.

I&I NSW recommends the following guiding principles to minimise the impacts of infrastructure development proposals on agricultural resources and enterprises.

- New infrastructure is located within existing infrastructure corridors where ever possible.
- Land use conflicts are minimised, and the expectations of local communities are managed.
- Issues such as weeds, pest animals, biosecurity risks and soil erosion are addressed and not made any worse by the development proposal.
- Development proposals contain sufficient information to identify suitable impact mitigation responses for all likely agricultural impacts.

Infrastructure issues of particular significance for sustainable agriculture are:

- avoidance of resource loss and fragmentation,
- changes to access arrangements for rural properties,
- weed and pest management,
- biosecurity and emergency impacts,
- land rehabilitation.

I&I NSW recommends that infrastructure proposals consider:

- existing infrastructure corridors and co-locates infrastructure within existing corridors (eg road or rail reserves or existing easements) where ever possible,
- the location and distribution primary industry resources and agricultural operations,
- minimising the footprint of infrastructure development,
- identifying and avoid important agricultural resources and farm infrastructure,
- minimising resource fragmentation and avoiding significant changes to agricultural resource access,
- burying of pipelines and cables where feasible, with due protection of the environment and land users,
- negotiations with landholders with respect to property access during development and the service life of the infrastructure,
- measures to mitigate the spread of weeds eg Parthenium weed, Serrated Tussock, Chilean Needle Grass, Giant Parramatta Grass, Coolatai weed, Giant Rat Tail Grass (further information may be found at <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds>),

Division of Primary Industries, Aquatic Habitat Protection Unit
1243 Bruxner HWY WOLLONGBAR NSW 2477
Tel: 02 6626 1397 Fax: 02 6626 1377
ABN 51 734 124 190 www.industry.nsw.gov.au

- any agricultural bio-security risks that may require special operating procedures, eg, horse flue, foot rot, fire ants, generically modified crops, Phylloxera, Panama disease.

In addition to the above issues, there should be an assessment of agricultural airstrips in the vicinity of the proposed transmission line as well as an assessment of the extent of aircraft use by farms within the study area. The proposed transmission line should be assessed for impacts on agricultural aerial activities and air safety. The use of suspended markers on long stretches of transmission lines across gullies or near flight paths or rural airstrips should be considered. The environmental assessment should also consider areas in which the power line may affect the movement of agricultural machinery under the line. It is assumed that the transmission line will have substantial ground clearance. However it would still be beneficial for impacts on the safe use of farm machinery and routine farm activities be considered as part of the environmental assessment.

Changes to access arrangements for rural properties

Agricultural businesses rely on access to the road and transport network for markets, supplies, employees and specialist support services. Access to infrastructure such as power, communication and water can also be critical for business survival and animal welfare.

Reliable, effective access to the road network is particularly critical for dairies, horticultural and vegetable production and during peak harvesting or selling periods. Internal access to water, pastures and key farm infrastructure (eg dairies, feed and machinery storage areas) can also be vital for animal welfare and sustainable farming. Infrastructure proposals should:

- avoid, or mitigate any adverse changes in access to the road network and critical infrastructure on or off farm,
- locate infrastructure developments parallel to or immediately adjoining to existing farm infrastructure (eg fence lines or irrigation lines) where ever possible,
- consider temporary fencing and /or temporary access routes of an appropriate standard,

Where the proposal will inevitably divide existing farm operations or properties the development should include measures to ensure ongoing access between each section of the farm using appropriate design standards to support ongoing agricultural use and should be developed in consultation with the landholder.

Weed and pest management

The spread of weeds is of a particular risk for infrastructure developments that involve the movement of vehicles and equipment across multiple properties and between areas with weeds and areas with few weed issues.

A Weed and Pest Management Plan can be useful in identifying the notifiable and problematic environmental weeds and pests for the locality that may affect farm productivity. The plan should include weeds that exist on site and those likely to be transported to the facility from surrounding areas. Weed suppression, management and containment strategies for all disturbed areas should be identified. Weed germination and invasion is stimulated by land disturbance. Weed and pest management should include measures:

- to limit the site spread of weeds via vehicles and machinery (eg via segregation, wash down or monitoring provisions),
- targeting soil stockpiles, roadsides and any other disturbed areas (weed germination and invasion is stimulated by disturbance),
- recommend measures include cleaning of vehicle tyres before leaving a property, cleaning of footwear and minimising and monitoring soil movement between locations,
- monitoring programs for noxious and problematic weeds and pests on site and in the surrounding areas,
- measures to mitigate noxious and problematic weeds and pests should they be found,

Bio-security and Emergency Impacts

Infrastructure developments typically result in a significant increase in vehicle movements on and off farming properties over which the farm manager may have no effective capacity to control or monitor.

The additional vehicle movement and development activities may also increase the risk of bushfires.

To protect biosecurity and enable tracing of potential disease spread, infrastructure development proposals should identify and complete risk assessment of:

- potential bio-security risks such as pest and diseases,
- risk of contact with animal or plant diseases.

Work sites can be separated from the wider farm to limit the movement of vehicles onto and across private property. Monitoring and record keeping of vehicles and contractors that access the properties is desirable for biosecurity purposes. The relationship of the proposed infrastructure to bushfire risk and response to emergencies should be identified and discussed.

Site Rehabilitation

Rehabilitation is important to manage soil erosion risk, limit weed germination, avoid the sedimentation of waterways and restore productive land use options.

I&I NSW recommends that proponents commit to preparing a rehabilitation management plan that;

- clearly documents, environmental policies and rehabilitation objectives,
- comprehensively reviews the relevant issues and rehabilitation risks,
- identifies mitigation measures to prevent excessive dust, soil erosion and the sedimentation of waterways,
- documents the proposed monitoring program,
- describes the proposed future land use options and justifies any permanent impacts on agricultural or other primary industries.

In particular, rehabilitation plans should document:

- priority land uses of the site and plan to re-establish these as soon as practical,
- project staging and the timeframes for site rehabilitation.

Progressive site rehabilitation is encouraged. Temporary or permanent water diversion and erosion structures and erosion control practices to protect catchment values and productive capacity should be considered. Top soil is a resource and rehabilitation should aim to make best use of this resource and maximise rehabilitation and revegetation efforts. I&I NSW supports the removal of topsoil before disturbing sub-soils or erecting permanent structures and the immediate reuse of topsoil. If this is not feasible, topsoils should be temporarily stored in accordance with current best practice. Soils should be stored and stockpiled in a manner to maintain soil health and the vigour of native seed, limit weed germination, and avoid soil loss and catchment impacts which can give rise to conflicts and complaints.

To assist with vegetation and pasture re-establishment, I&I NSW recommends:

- ripping or aeration of areas traversed by heavy machinery to encourage plant growth and minimise run off,
- sowing of cover crops or pastures to stabilise disturbed sites and reduce weed growth,
- use of species suitable for the proposed end use and locality with priority given to the use of clean seed and species with a low risk of contributing to weed problems,
- consideration of seasonal conditions and timing revegetation efforts to maximise success,
- weed and pest management control should accord with existing state, regional or local management plans or requirements,
- monitoring proposals to assess the effectiveness of rehabilitation efforts and repair as required.



- the responsible body for site management and remediation when construction activities cease.

Additional issues

I&I NSW recommends that proponents consult with relevant agencies such as local weed authorities, Livestock Health and Pest Authorities and catchment management authorities on the design, construction and operation of the proposed infrastructure.

Consultation with the owners and/or managers of affected lands and adjoining agricultural operations should be undertaken in a timely and appropriate manner and include the sharing of information and knowledge about the proposal, the likely impacts and suitable mitigation measures or compensation.

The environmental assessment should provide sufficient documentation to demonstrate that all significant impacts on agricultural developments and resources have been identified and can be reasonably avoided or adequately mitigated.

Further information

I&I NSW has additional web based information on pastures, weeds, soils, biosecurity and the management and minimising conflict risks with adjoining agricultural land uses available for download at www.dpi.nsw.gov.au.

Please contact Rik Whitehead at Wollongbar on 6626 1349 or rik.whitehead@industry.nsw.gov.au should you require any further information with regard agricultural issues.

Yours sincerely

Patrick Dwyer
Fisheries Conservation Manager (North)



Planning

Contact: Anna Timbrell
Phone: (02) 9228 6345
Fax: (02) 9228 6366
Email: anna.timbrell@planning.nsw.gov.au

Our ref: S09/00666

Mr Denis Novakovic
Project Manager – Capital Programme Delivery
TransGrid
PO Box A1000
SYDNEY SOUTH NSW 1235

Dear Mr Novakovic

Proposed Dumaresq to Lismore Transmission Line – Inverell, Tenterfield, Kyogle, Richmond Valley and Lismore Local Government Areas – (MP 09_0150)

For your information and reference during the preparation of the Environmental Assessment, please find attached a copy of a letter from the Border Rivers-Gwydir Catchment Management Authority.

This letter is in addition to those received from other agencies and forwarded to you in our previous correspondence dated 11 September 2009.

If you have any queries regarding the above, please contact Anna Timbrell, on the above contact details.

Yours sincerely

Neville Osborne 16/9/09

Neville Osborne
Team Leader – Water and Energy
Major Infrastructure Assessments

cc: William Barrett – URS

16 September 2009

Manager – Water and Energy
Major Infrastructure Assessments
NSW Department of Planning
GPO Box 39
Sydney NSW 2001

Attn: Mr. Neville Osborne

Dear Neville,

Re: Proposed Dumaresq to Lismore 330kV Transmission Line – Inverell, Tenterfield, Kyogle, Richmond Valley and Lismore Local Government Areas (MP 09_0150)

Thank you for the opportunity to provide input into the above proposal. The Border Rivers – Gwydir Catchment Management Authority offers the following comments on the key issues and environmental assessment requirements for this proposal.

- Any proposed mitigation measures involving offsets for loss of native vegetation should be calculated using the Department of Environment, Climate Change and Water (DECCW) biobanking method.
- Impacted areas identified as ecologically significant should be mapped at a suitable scale. This should include GPS reference points for significant species.
- An assessment of matters listed under the Environment Protection and Biodiversity Conservation Act (1999) should also be undertaken.
- The BRG-CMA is also concerned with the ongoing potential spread of weeds and likely soil erosion issues during the construction and maintenance phases for this type of development. Any proposed mitigation measures proposed should be best practice and have detailed procedures for how this information will be disseminated to all contractors etc.

I trust this information assists the Department in assessing the proposal and should you require any additional information, please do not hesitate to contact me on 02 67288031.

Yours sincerely



Lisa Roberts
General Manager



Planning

Contact: Anna Timbrell
Phone: (02) 9228 6345
Fax: (02) 9228 6366
Email: anna.timbrell@planning.nsw.gov.au

Our ref: S09/00666

Mr Denis Novakovic
Project Manager – Capital Programme Delivery
TransGrid
PO Box A1000
SYDNEY SOUTH NSW 1235

Dear Mr Novakovic

Proposed Dumaresq to Lismore Transmission Line – Inverell, Tenterfield, Kyogle, Richmond Valley and Lismore Local Government Areas – (MP 09_0150)

For your information and reference during the preparation of the Environmental Assessment, please find attached an updated copy of the Department of Industry and Investment's letter that was previously received during the preparation of the Director-General's environmental assessment requirements.

The letter includes additional information covering "Mineral Resources" (see pages 7-9) that was not in the original letter.

This letter is in addition to those received from other agencies and forwarded to you in our previous correspondence dated 11 September 2009 and an additional late response forwarded to you on 16 September 2009.

If you have any queries regarding the above, please contact Anna Timbrell, on the above contact details.

Yours sincerely

Neville Osborne 17/9/09

Neville Osborne
Team Leader – Water and Energy
Major Infrastructure Assessments

cc: William Barrett – URS

Our Ref: TRIM09/6136 Inw09/14755

Director, Major Infrastructure Assessment
Department of Planning
GPO Box 39
SYDNEY NSW 2001



8 September 2009

Attention: Ms Anna Trimbell

Dear Ms Trimbell

**Re: Key Issues and Assessment Requirements MP09/0150
Dumaresq to Lismore 330kV Transmission Line – Inverell, Tenterfield, Kyogle,
Richmond Valley and Lismore LGAs**

Thank you for your letter of 26 August 2009 requesting Industry & Investment NSW (I&I NSW) outline assessment requirements for the above mentioned project application.

I&I NSW has both statutory and advisory responsibilities in relation to development and land use planning matters. I&I NSW is an advocate of sustainable development and profitable and sustainable primary industries through appropriate access to and wise management of natural resources. Through Forests NSW, I&I NSW also has a commercial and operational interest in land use planning matters including land within the study corridor.

Agricultural, Forestry, Mineral Resources and Fisheries divisions within I&I NSW will have an ongoing interest in this proposal.

Forestry issues

The draft requirements generally address the key issues of concern to Forests NSW. These relate to land use particularly in relation to impacts on State forest and timber resources on State forest and other Crown-timber lands, ecological and environmental impacts from the clearing and track and trail maintenance and possible construction and ongoing maintenance and safety risks on and from bushfires. It is suggested that the reference to conservation areas under land use planning impacts could be amended to specifically also include the impact on Special Management Zones on State forest. For further information on Forestry issues please call Planning Manager, North East Region, Forests NSW, Mr John Murray on 6650 5125.

Division of Primary Industries, Aquatic Habitat Protection Unit
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Fisheries issues

The proposal, particularly provision of access points over waterways during construction and for maintenance of the transmission line could have direct and significant impacts on populations of two threatened fish species, the Eastern Freshwater Cod (which is also listed under the *Clth Environmental Protection and Biodiversity Conservation Act 1999*) and the Purple Spotted Gudgeon. Installation of the transmission line may also necessitate ongoing management (thinning / clearing) of riparian vegetation which is identified as a key threatening process because of the importance of healthy riparian vegetation for aquatic communities and consequently recreational fishing activities.

To ensure the environmental assessment incorporates investigations that will adequately facilitate assessment of the proposal I&I NSW's Aquatic Habitat Protection Unit seek that the Director General's Requirements be broadened to encompass the following matters:

Fish Friendly Watercourse Crossings: The EA should identify the location of proposed permanent and temporary watercourse crossings necessitated by the proposal and justify these against alternate access routes. Where crossings are to be installed a brief assessment of the waterway and a description or draft design of the proposed crossing is required. Waterway assessments and design of crossings should be consistent with fish friendly guidelines and information available at:

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0003/202692/Fish-friendly-waterway-crossings-Policy-and-guidelines.pdf

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0004/202693/Why-do-fish-need-to-cross-the-road_booklet.pdf

Where existing crossings can be used but require upgrading the EA should outlined the scope of works and whether the works will exacerbate and prolong the life of an existing barrier to fish passage.

Riparian Vegetation Management: The likely height of transmission lines at waterway crossings should also be indicated with reference to existing riparian vegetation and endemic riparian vegetation. The EA should outline where ongoing management of riparian vegetation will be required and outline the regularity and scale of these works.

For further information on fisheries issues please contact Fisheries Conservation Manager (North) Patrick Dwyer on 6626 1397.

Agricultural issues

Industry & Investment NSW (I&I NSW) is developing a guideline outlining the typical agricultural issues that infrastructure development should address. The issues and comments identified below are based on this guideline.

I&I NSW recommends the following guiding principles to minimise the impacts of infrastructure development proposals on agricultural resources and enterprises.

- New infrastructure is located within existing infrastructure corridors where ever possible.
- Land use conflicts are minimised, and the expectations of local communities are managed.
- Issues such as weeds, pest animals, biosecurity risks and soil erosion are addressed and not made any worse by the development proposal.
- Development proposals contain sufficient information to identify suitable impact mitigation responses for all likely agricultural impacts.

Infrastructure issues of particular significance for sustainable agriculture are:

- avoidance of resource loss and fragmentation,
- changes to access arrangements for rural properties,
- weed and pest management,
- biosecurity and emergency impacts,
- land rehabilitation.

I&I NSW recommends that infrastructure proposals consider:

- existing infrastructure corridors and co-locates infrastructure within existing corridors (eg road or rail reserves or existing easements) where ever possible,
- the location and distribution primary industry resources and agricultural operations,
- minimising the footprint of infrastructure development,
- identifying and avoid important agricultural resources and farm infrastructure,
- minimising resource fragmentation and avoiding significant changes to agricultural resource access,
- burying of pipelines and cables where feasible, with due protection of the environment and land users,
- negotiations with landholders with respect to property access during development and the service life of the infrastructure,
- measures to mitigate the spread of weeds eg Parthenium weed, Serrated Tussock, Chilean Needle Grass, Giant Parramatta Grass, Coolatai weed,

Giant Rat Tail Grass (further information may be found at <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds>),

- any agricultural bio-security risks that may require special operating procedures, eg, horse flue, foot rot, fire ants, generically modified crops, Phylloxera, Panama disease.

In addition to the above issues, there should be an assessment of agricultural airstrips in the vicinity of the proposed transmission line as well as an assessment of the extent of aircraft use by farms within the study area. The proposed transmission line should be assessed for impacts on agricultural aerial activities and air safety. The use of suspended markers on long stretches of transmission lines across gullies or near flight paths or rural airstrips should be considered. The environmental assessment should also consider areas in which the power line may affect the movement of agricultural machinery under the line. It is assumed that the transmission line will have substantial ground clearance. However it would still be beneficial for impacts on the safe use of farm machinery and routine farm activities be considered as part of the environmental assessment.

Changes to access arrangements for rural properties

Agricultural businesses rely on access to the road and transport network for markets, supplies, employees and specialist support services. Access to infrastructure such as power, communication and water can also be critical for business survival and animal welfare.

Reliable, effective access to the road network is particularly critical for dairies, horticultural and vegetable production and during peak harvesting or selling periods. Internal access to water, pastures and key farm infrastructure (eg dairies, feed and machinery storage areas) can also be vital for animal welfare and sustainable farming. Infrastructure proposals should:

- avoid, or mitigate any adverse changes in access to the road network and critical infrastructure on or off farm,
- locate infrastructure developments parallel to or immediately adjoining to existing farm infrastructure (eg fence lines or irrigation lines) where ever possible,
- consider temporary fencing and /or temporary access routes of an appropriate standard,

Where the proposal will inevitably divide existing farm operations or properties the development should include measures to ensure ongoing access between each section of the farm using appropriate design standards to support ongoing agricultural use and should be developed in consultation with the landholder.

Weed and pest management

The spread of weeds is of a particular risk for infrastructure developments that involve the movement of vehicles and equipment across multiple properties and between areas with weeds and areas with few weed issues.

A Weed and Pest Management Plan can be useful in identifying the notifiable and problematic environmental weeds and pests for the locality that may affect farm productivity. The plan should include weeds that exist on site and those likely to be transported to the facility from surrounding areas. Weed suppression, management and containment strategies for all disturbed areas should be identified. Weed germination and invasion is stimulated by land disturbance. Weed and pest management should include measures:

- to limit the site spread of weeds via vehicles and machinery (eg via segregation, wash down or monitoring provisions),
- targeting soil stockpiles, roadsides and any other disturbed areas (weed germination and invasion is stimulated by disturbance),
- recommend measures include cleaning of vehicle tyres before leaving a property, cleaning of footwear and minimising and monitoring soil movement between locations,
- monitoring programs for noxious and problematic weeds and pests on site and in the surrounding areas,
- measures to mitigate noxious and problematic weeds and pests should they be found,

Bio-security and Emergency Impacts

Infrastructure developments typically result in a significant increase in vehicle movements on and off farming properties over which the farm manager may have no effective capacity to control or monitor.

The additional vehicle movement and development activities may also increase the risk of bushfires.

To protect biosecurity and enable tracing of potential disease spread, infrastructure development proposals should identify and complete risk assessment of:

- potential bio-security risks such as pest and diseases,
- risk of contact with animal or plant diseases.

Work sites can be separated from the wider farm to limit the movement of vehicles onto and across private property. Monitoring and record keeping of vehicles and contractors that access the properties is desirable for biosecurity purposes. The relationship of the proposed infrastructure to bushfire risk and response to emergencies should be identified and discussed.

Site Rehabilitation

Rehabilitation is important to manage soil erosion risk, limit weed germination, avoid the sedimentation of waterways and restore productive land use options.

I&I NSW recommends that proponents commit to preparing a rehabilitation management plan that;

- clearly documents, environmental policies and rehabilitation objectives,
- comprehensively reviews the relevant issues and rehabilitation risks,
- identifies mitigation measures to prevent excessive dust, soil erosion and the sedimentation of waterways,
- documents the proposed monitoring program,
- describes the proposed future land use options and justifies any permanent impacts on agricultural or other primary industries.

In particular, rehabilitation plans should document:

- priority land uses of the site and plan to re-establish these as soon as practical,
- project staging and the timeframes for site rehabilitation.

Progressive site rehabilitation is encouraged. Temporary or permanent water diversion and erosion structures and erosion control practices to protect catchment values and productive capacity should be considered. Top soil is a resource and rehabilitation should aim to make best use of this resource and maximise rehabilitation and revegetation efforts. I&I NSW supports the removal of topsoil before disturbing sub-soils or erecting permanent structures and the immediate reuse of topsoil. If this is not feasible, topsoils should be temporarily stored in accordance with current best practice. Soils should be stored and stockpiled in a manner to maintain soil health and the vigour of native seed, limit weed germination, and avoid soil loss and catchment impacts which can give rise to conflicts and complaints.

To assist with vegetation and pasture re-establishment, I&I NSW recommends:

- ripping or aeration of areas traversed by heavy machinery to encourage plant growth and minimise run off,
- sowing of cover crops or pastures to stabilise disturbed sites and reduce weed growth,
- use of species suitable for the proposed end use and locality with priority given to the use of clean seed and species with a low risk of contributing to weed problems,
- consideration of seasonal conditions and timing revegetation efforts to maximise success.

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- weed and pest management control should accord with existing state, regional or local management plans or requirements,
- monitoring proposals to assess the effectiveness of rehabilitation efforts and repair as required.
- the responsible body for site management and remediation when construction activities cease.

Additional issues

I&I NSW recommends that proponents consult with relevant agencies such as local weed authorities, Livestock Health and Pest Authorities and catchment management authorities on the design, construction and operation of the proposed infrastructure.

Consultation with the owners and/or managers of affected lands and adjoining agricultural operations should be undertaken in a timely and appropriate manner and include the sharing of information and knowledge about the proposal, the likely impacts and suitable mitigation measures or compensation.

The environmental assessment should provide sufficient documentation to demonstrate that all significant impacts on agricultural developments and resources have been identified and can be reasonably avoided or adequately mitigated.

Further information

I&I NSW has additional web based information on pastures, weeds, soils, biosecurity and the management and minimising conflict risks with adjoining agricultural land uses available for download at www.dpi.nsw.gov.au.

Please contact Rik Whitehead at Wollongbar on 6626 1349 or rik.whitehead@industry.nsw.gov.au should you require any further information with regard agricultural issues.

Mineral Resources

Industry & Investment NSW - Mineral Resources notes in the PEA Report (4.10) that it will be consulted regarding previous mining in the area and leases granted for future exploration. An assessment of potential impacts relating to subsidence will also be carried out.

It should be noted that the EA must consider the potential for the project to impact upon any mineral resources, including metallic minerals, industrial and extractive minerals, petroleum, gas and coal resources.

DPI – Mineral Resource Division (DPI – MR) requires the proponent to adopt the following strategies regarding mineral resources in its planning and EA:

- *Operating mines and quarries should be protected from sterilisation or hindrance by encroachment of incompatible adjacent development.*
- *Known resources and areas of high mineral potential should not be unnecessarily sterilised by inappropriate zoning or development.*
- *Access to land for mineral exploration and possible development should be maintained.*

The DPI – MR requires the proponent to contact any relevant minerals related stakeholders to discuss the proposed transmission line in relation to the associated land use impacts. Relevant minerals related stakeholders include mineral title holders (including exploration and mining titles), quarry owners and operators, and I & I – MR Land Use Assessment Group. Details of these consultations and the major outcomes must be presented in the EA.

Should you wish to discuss any of the mineral resources matters mentioned above please contact Bob Brown of the Minerals & Energy Division via email bob.brown@industry.nsw.gov.au or on (02) 6738 8516.

NSW DPI Mineral Resources Division - Geoscience Information Services

The Division has a range of data available on line through our primary website address at:

<http://www.dpi.nsw.gov.au/minerals>

This site hosts a range of data to enable research into exploration, land use and general geoscience topics.

The location of exploration and mining titles in NSW may be accessed by the general public using the following online utilities:

1. **TAS Map** permits the search, display and download of up to date NSW mineral, coal and petroleum titles maps and related information. This online service is available at:

<http://www.dpi.nsw.gov.au/minerals/titles/online-services/tasmap>

2. **MinView** allows users to interactively display and query current and historical exploration titles information, state wide geology, mineral deposits and occurrences. This online service is available at:

http://www.minerals.nsw.gov.au/online_services/min_view

Yours sincerely

Bill Talbot
Director Fisheries Conservation and Aquaculture



Planning

Contact: Anna Timbrell
Phone: (02) 9228 6345
Fax: (02) 9228 6355
Email: anna.timbrell@planning.nsw.gov.au

Mr Denis Novakovic
Project Manager – Capital Programme Delivery
TransGrid
PO Box A1000
SYDNEY SOUTH NSW 1235

Our ref: S09/0666
Your ref:

Dear Mr Novakovic

Dumaresq to Lismore 330 kV Transmission Line – (Application Reference: 09_0150) – Supplement to the Director-General's Requirements

I refer to the Director-General's requirements issued for the above project on 11 September 2009.

As you are aware, the project was declared a Controlled Action under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 18 February 2010, for likely impacts on listed threatened species and ecological communities. In accordance with section 75F(3) of the NSW *Environmental Planning & Assessment Act 1979*, I have enclosed the Commonwealth's requirements for the assessment.

I also confirm that the interim administrative procedures in relation to the accredited assessment process will apply to the assessment of this project under the EPBC Act, so that the Department can undertake an environmental impact assessment of the project to satisfy the requirements of both NSW and Commonwealth legislation.

You must ensure that the Environmental Assessment adequately addresses the Director-General's requirements issued on 11 September 2009, and the supplementary requirements attached to this letter.

If you have any enquiries about these requirements, please do not hesitate to contact Ms Anna Timbrell, Environmental Planning Officer, Infrastructure Projects on 02 9228 6345 or via email (anna.timbrell@planning.nsw.gov.au).

Yours sincerely



Scott Jeffries
Director – Infrastructure Projects
as delegate for the Director-General

Department of the Environment, Water, Heritage and the Arts – requirements for environmental assessment EPBC 2010/5326

Section 75F(3) of the *Environmental Planning and Assessment Act 1979*

The Commonwealth Minister for the Environment, Heritage and the Arts has declared the TransGrid Dumaresq to Lismore 330kV Transmission Line project (EPBC 2010/5326) to be a controlled action under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The project encompasses the construction, operation and maintenance of a new 330 kilovolt transmission line and 60 metre-wide easement from Dumaresq substation east to Tenterfield and the upgrade of the existing 132kV transmission line (known as '96L') from Tenterfield substation east to Lismore substation, including widening the current easement to 60 metres.

The controlled action is likely to have a significant impact on the EPBC Act listed critically endangered *White Box-Yellow Box-Blakeley's Red Gum grassy woodlands and derived grasslands ecological community*. Significant impacts are also considered possible for numerous other species and ecological communities protected by the EPBC Act including, but not limited to, those listed in Appendix A.

In accordance with the one-off accredited assessment process for this project, the environmental assessment of the impacts of the controlled action must be assessed under Part 3A of the *Environmental Planning and Assessment Act 1979* (the EP&A Act). Pursuant to section 75F(3) of part 3A of the EP&A Act the Director-General is required to notify the proponent of these requirements.

The assessment should include enough information about the controlled action and its relevant impacts to allow the Commonwealth Minister for the Environment, Heritage and the Arts to make an informed decision whether or not to approve the controlled action under the EPBC Act.

These requirements are to be integrated into the assessment required for Part 3A of the EP&A Act. The following matters in the EPBC Act and schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* should be considered.

1. General information

The background of the action including:

- a. the title of the action;
- b. the full name and postal address of the designated proponent;
- c. a clear outline of the objective of the action;
- d. the location of the action;
- e. the background to the development of the action;
- f. how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;
- g. the current status of the action; and
- h. the consequences of not proceeding with the action.

2. Description of the controlled action

A description of the action, including:

- a. all the components of the action;
- b. the precise location and area in hectares of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;
- c. how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts;
- d. the timing and duration of the works to be undertaken; and
- e. to the extent reasonably practicable, a description of any feasible alternatives to the controlled action that have been identified through the assessment, and their likely impact, including:
 - i. if relevant, the alternative of taking no action;
 - ii. a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action; and
 - iii. sufficient detail to clarify why any alternative is preferred to another.

3. Description of the existing environment

A description of the existing environment of the proposal location and the surrounding areas that may be affected by the action, including:

- a. surveys using accepted methodology for targeting listed threatened species, ecological communities and their respective habitat, including but not limited to DECC's *Survey and assessment guidelines* (2009), available at: <http://www.environment.nsw.gov.au/threatenedspecies/surveymethodsfauna.htm>

In addition to the requirements outlined in DECCW's *Survey and assessment guidelines* (2009), the following must also be included:

- c. a description of the distribution and abundance of threatened species and ecological communities, as well as suitable habitat (including breeding, foraging, roosting habitat, habitat critical to the survival of threatened species) within the site and in surrounding areas that may be impacted by the proposal; and
- d. the regional distribution and abundance of suitable and potential habitat surrounding the site.

4. A description of the relevant impacts of the controlled action

- a. An assessment of all relevant impacts with reference to the *EPBC Act Policy Statement 1.1 Significant Impact Guidelines Matters of National Environmental Significance* (2009) that the controlled action has, will have or is likely to have on:
 - i. threatened species and threatened ecological communities potentially present and listed under sections 18 and 18A of the EPBC Act, including, but not limited to, the EPBC listed species outlined on page one and Appendix A of these requirements; and
 - ii. the composition, extent and location of vegetation and suitable habitat on site and in adjacent areas potentially impacted.

- b. Information on impacts must include:
- i. a description and detailed assessment of the nature, location and extent of the likely short-term and long-term impacts of the action on matters of national environmental significance. This must include a description of direct, indirect, and cumulative impacts, for both the construction and operation phase of the project;
 - ii. a statement whether any impacts are likely to be uncertain or irreversible;
 - iii. analysis of the scale of the impacts; and
 - iv. any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

5. Proposed safeguards, mitigation and offset measures

Safeguards and Mitigation

- a. any changes to the controlled action which prevent or minimise relevant impacts on listed threatened species and communities;
- b. a description of the mitigation measures that will be undertaken to prevent or minimise the relevant impacts of the action. These mitigation measure should be substantiated and based on best available practices;
- c. an assessment of the expected or predicted effectiveness of the mitigation measures including the effect on abundance and condition of species, suitable habitat and ecological communities;
- d. any statutory or policy basis for the mitigation measures;
- e. the cost of the mitigation measures;
- f. an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs (including any relevant thresholds for corrective actions) for the relevant impacts of the action. Include the person or agency responsible for implementing these programs and the effectiveness of all mitigation measures, including any provisions for independent environmental auditing;
- g. the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program;
- h. identification of mitigation measures proposed to be undertaken by State governments, local governments or the proponent;

Offsets

- i. In the event that impacts cannot be avoided or mitigated, describe any offsets to compensate for any predicted or potential residual impacts on threatened species and ecological communities (ie. the direct removal of suitable habitat). Reference should be made to the Department's draft policy statement at : <http://www.environment.gov.au/epbc/publications/draft-environmental-offsets.html>
- j. the description of any offset package should include how the offset compensates for the residual impacts, when the offset will be delivered and how the offset will be managed;
- k. an assessment of the impact of the offsets on other matters of environmental, economic, or social significance; and
- l. analysis of cost, both financial and other, related to offsets.

6. Other approvals and conditions

Any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action. Information must include:

- a. details of any local or State government planning scheme, system or policy that covers the proposed action, including:
 - i. what environmental assessment of the proposed action has been, is being, or will be carried out under the scheme, plan or policy; and
 - ii. how the scheme provides for the prevention, minimisation and management of any relevant impacts;
- b. a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the EPBC Act), including any associated conditions that apply to the action;
- c. a statement identifying any additional approval that is required; and
- d. a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

7. Economic and social matters

A description of long-term and short-term economic and social considerations regarding the project.

8. Environmental record of person proposing to take the action

- a. Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:
 - i. the proponent; and
 - ii. for an action for which a person has applied for a permit, the person making the application.
- b. Details of the proponent's environmental policy and planning framework.

9. Information sources

For information given in the environment assessment for this project, the document must state:

- a. the source of the information;
- b. how recent the information is;
- c. how the reliability of the information was tested; and
- d. what uncertainties (if any) are in the information.

10. Consultation

- a. Any consultation undertaken in relation to the action, including:
 - i. any consultation that has already taken place;
 - ii. proposed consultation about relevant impacts of the action; and
 - iii. if there has been consultation about the proposed action — any documented response to, or result of, the consultation.
- b. identification of affected parties, including a statement describing any communities that may be affected and their views on the proposed action.

Appendix A

Threatened Ecological Communities

- White Box-Yellow Box-Blakely's Red Gum grassy woodlands and derived grasslands
- Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland

Threatened Flora

- *Callitris oblonga* (Pigmy Cypress-pine)
- *Eucalyptus caleyi* subsp. *ovendenii* (Ovenden's Ironbark)
- *Rapanea* sp. Richmond River (Purple-leaf Muttonwood)
- *Acacia macnuttiana* (McNutt's Wattle)
- *Acacia pubifolia*
- *Allocasuarina defungens* (Dwarf Heath Casuarina)
- *Astrotricha roddii*
- *Boronia granitica* (Granite Boronia)
- *Cadellia pentastylis* (Ooline)
- *Callistemon pungens*
- *Clematis fawcettii* (Stream Clematis)
- *Corchorus cunninghamii* (Native Jute)
- *Cryptostylis hunteriana* (Leafless Tongue-orchid)
- *Desmodium acanthocladum* (Thorny Pea)
- *Digitaria porrecta* (Finger Panic Grass)
- *Diuris pedunculata* (Small Snake Orchid)
- *Diuris sheaffiana* (Tricolour Diuris)
- *Eucalyptus glaucina* (Slaty Red Gum)
- *Eucalyptus mckieana* (McKie's Stringybark)
- *Eucalyptus nicholii* (Narrow-leaved Peppermint)
- *Gossia fragrantissima* (Sweet Myrtle)
- *Grevillea quadricauda*
- *Homopholis belsonii*
- *Lepidium peregrinum* (Wandering Pepper-cress)
- *Marsdenia longiloba* (Clear Milkvine)
- *Ochrosia moorei* (Southern Ochrosia)
- *Owenia cepiodora* (Onionwood)
- *Persicaria elatior* (Knotweed)
- *Pultenaea stuartiana*
- *Rutidosia heterogama* (Heath Wrinklewort)
- *Syzygium hodgkinsoniae* (Smooth-bark Rose Apple)
- *Taeniophyllum muelleri* (Minute Orchid)
- *Thesium australe* (Austral Toadflax)
- *Tinospora tinosporoides* (Arrow-head Vine)
- *Triplarina imbricata*
- *Tylophora linearis*
- *Tylophora woollsii*

Threatened Fauna

- *Anthochaera phrygia* (Regent Honeyeater)
- *Mixophyes fleayi* (Fleay's Frog)
- *Potorous tridactylus tridactylus* (Long-nosed Potoroo)
- *Pseudomys oralis* (Hastings River Mouse)
- *Cyclopsitta diophthalma coxeni* (Coxen's Fig-Parrot)
- *Dasyornis brachypterus* (Eastern Bristlebird)
- *Lathamus discolor* (Swift Parrot)
- *Neochmia ruficauda ruficauda* (Star Finch)

- *Rostratula australis* (Australian Painted Snipe)
- *Mixophyes balbus* (Stuttering Frog)
- *Mixophyes iteratus* (Southern Barred Frog)
- *Chalinolobus dwyeri* (Large-eared Pied Bat)
- *Dasyurus maculatus maculatus* (Spot-tailed Quoll)
- *Nyctophilus timoriensis* (Greater Long-eared Bat)
- *Petrogale penicillata* (Brush-tailed Rock-wallaby)
- *Pteropus poliocephalus* (Grey-headed Flying-fox)
- *Coeranoscincus reticulatus* (Three-toed Snake-tooth Skink)
- *Underwoodisaurus sphyrurus* (Border Thick-tailed Gecko)



Appendix A-2

Director-General's Requirements Response Table

**DUMARESQ TO LISMORE 330kV TRANSMISSION LINE - INVERELL, TENTERFIELD, KYOGLE,
RICHMOND VALLEY AND LISMORE LOCAL GOVERNMENT AREAS**

Table A1 Director-General's Requirements: EA Cross-Reference Table

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
NSW Department of Planning (DoP) (11/09/09)	General Requirements	
	The Environmental Assessment must be prepared to a high technical and scientific standard and must include: <ul style="list-style-type: none"> an executive summary. 	Executive Summary
	<ul style="list-style-type: none"> a detailed description of the project clearly defining the proposal corridor including construction, staging, operation and the construction of access roads. 	Chapter 4
	<ul style="list-style-type: none"> consideration of any relevant statutory provisions including the consistency of the project with the objects of the Environmental Planning and Assessment Act 1979. 	Chapters 5 & 20
	<ul style="list-style-type: none"> an assessment of the key issues outlined below, during construction, operation and decommissioning. 	Vol 1 & Vol 2
	<ul style="list-style-type: none"> a draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project. 	Chapter 19
	<ul style="list-style-type: none"> a conclusion justifying the project taking into consideration the environmental social and economic impacts of the project, the suitability of the site, and the public interest. 	Chapter 20
	<ul style="list-style-type: none"> certification by the author of the Environmental Assessment that the information contained in the Assessment is neither false nor misleading. 	Statement of Validity
	Key Assessment Requirements	
	The Environmental Assessment (EA) must include assessment of the following key issues: <ul style="list-style-type: none"> Strategic Planning and Project Justification- the Environmental Assessment must provide a strategic assessment for the project, including justification of the need, scale, scope and location of the project in relation to predicted electricity demand and reliability requirements, predicted transmission constraints, alternative strategies, and the strategic direction of the region and the State regarding the State electricity supply and demand and electricity generation technologies. Particular reference should be made to the outcomes of any Regulatory Test under the National Electricity rules, TransGrid's Annual Planning Review process and any non-network options proposed for the relief of identified transmission constraints 	Chapters 2 & 20
	<ul style="list-style-type: none"> Land Use Planning Impacts - the Environmental Assessment must provide an analysis of the suitability of the proposed transmission route with respect to potential land use conflicts with existing and future surrounding land uses including urban growth areas, agricultural uses, State forests/timber resources, highway upgrades, conservation areas including Special Management Zones in State forests, and areas of significant scenic or visual value. The EA must also include an assessment of the potential impacts of the project to influence changes to future land use character in proximity of the site. Reference should be made to the Far North Coast Regional Strategy. 	Chapter 5, Chapter 9, Chapter 12 & Chapter 13

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
	<p>Ecological Impacts - the Environmental Assessment must include a justified and tiered assessment approach for impacts of the project on native vegetation, threatened species, populations, ecological communities and their habitats for each bioregion (including both terrestrial and aquatic ecology, and all groundwater dependent ecosystems likely to be impacted). The Environmental Assessment must:</p> <ul style="list-style-type: none"> • identify bioregions that will be or may be impacted by the project; • demonstrate a design philosophy of impact avoidance on ecological values, and in particular, ecological values of high significance; • for each identified bioregion, include a screening of species, populations, ecological communities and habitats based on ecological significance and the potential for impact as a consequence of the project; • for species, populations, ecological communities and habitats with high ecological significance and significant potential for impact, include sufficient information to demonstrate the likely impacts, consistent with Guidelines for Threatened Species Assessment (DEC & DPI, July 2005) • for other species, populations, ecological communities and habitats, a general bioregion-based assessment of ecological impacts associated with the project; • consider region-based ecological outcomes, including habitat connectivity and distribution of species, and how these may be impacted by the project; and • detail measures to avoid or mitigate impacts, including any proposed compensatory habitat or off-set strategy, that describes the scale, scope and timing of implementation. 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> • Heritage Impacts - the Environmental Assessment must include sufficient information to demonstrate the likely impacts on Aboriginal heritage values/items and outline proposed mitigation measures in accordance with the Draft <i>Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation</i> (DEC, 2005). The Environmental Assessment must demonstrate effective consultation with Aboriginal communities has been undertaken in determining and assessing impacts, developing options and selecting options and mitigation measures. 	Chapters 10 & 11 and Appendix G
	<p>Human Amenity Impacts -the Environmental Assessment must include a justified and tiered assessment approach for impacts on human amenity, including noise and vibration, air quality (dust and odour) and traffic impacts during construction and operation of the project. . The Environmental Assessment must:</p> <ul style="list-style-type: none"> • identify human receptors that will be or may be impacted by the project; • characterise potentially impacted human receptors in terms of receptor type (e.g. isolated receptors, receptor areas (such as residential zones) and sensitive receptors (such as schools, hospitals etc.)); o identify those receptors and receptor types likely to be significantly impacted by the project; and • include a framework for the mitigation, management and monitoring of noise and air quality impacts during construction of the project, particularly with respect to receptors and receptor types likely to be significantly impacted by the project and with specific reference to noise-and vibration-intensive construction works/activities (drilling, blasting, bulk excavation, heavy vehicle movements etc.) around receptors and major centres. 	Chapters 13, 14 & 15

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
	Hazards and Risk Impacts - the Environmental Assessment must include a screening of potential hazards on site to determine the potential for off site impacts, particularly at the substations, and any requirement for a Preliminary Hazard Analysis (PHA). The Environmental Assessment must include an identification of any contaminated land affected by the proposal. The Environmental Assessment must also include an assessment of the risk to human health from Electric and Magnetic Fields (EMFs) associated with the project, with reference to Australian Radiation Protection and Nuclear Safety Agency standards. The Environmental Assessment should demonstrate the application of the principles of Prudent Avoidance in relation to EMFs. The Environmental Assessment shall specifically consider on-going maintenance and safety management of the project, including potential impacts on and from bushfires and floods.	Chapter 16 and Appendix I
	<ul style="list-style-type: none"> Noise Impacts assessment in accordance with the Industrial Noise Policy (EPA, 2000). 	Chapter 14
	<ul style="list-style-type: none"> Visual Amenity Impacts - the Environmental Assessment must include an assessment of the visual impact associated with the proposal, including the impact on local and regional views by transmission lines and substations. Impacts on the values of adjacent wilderness areas should be considered. Alternate pole designs should be presented and assessed and the potential for undergrounding in sensitive locations should be assessed. 	Chapter 2, Chapter 12, and Appendix H
	<ul style="list-style-type: none"> Construction-related Impacts - the Environmental Assessment must include details of construction-related impacts associated with the proposal, including noise impacts against the criteria provided in Interim Construction Noise Guideline (DECC, July 2009), water quality impacts, weed management and soil and erosion implications. The Environmental Assessment must also indicate how these impacts would be mitigated and managed, consistent with best environmental practice. 	Chapters 7 to 19
	<ul style="list-style-type: none"> Traffic and Transport Impacts - the Environmental Assessment must address the construction and operational traffic impacts of the project including proposed routes, timing and traffic volumes. 	Chapter 13
	General Environmental Risk Analysis -notwithstanding the above key assessment requirements, the EA must 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 these additional key environmental impacts must be included in the EA.	Chapter 20 (Section 20.2)
	Consultation Requirements	
	<p>You must undertake an appropriate and justified level of consultation with the following parties during the preparation of the EA:</p> <ul style="list-style-type: none"> NSW Department of Environment, Climate Change and Water NSW Department of Industry and Investment NSW Roads and Traffic Authority and Australian Rail Track Corporation NSW Health NSW Rural Fire Service Land and Property Management Authority Livestock, Health and Pest Authorities (Rural Lands Protection Board) Inverell Shire Council Tenterfield Shire Council 	Chapter 6 and Appendix D

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
	<ul style="list-style-type: none"> • Kyogle Council • Richmond Valley Council • Lismore City Council • NSW Aboriginal Land Councils/NSW Native Title Service • Local Aboriginal Land Council • each landowner and land occupier within and adjacent to the corridor of the proposed development sites and transmission route, and • the local community 	
	The Environmental Assessment must clearly indicate issues raised by stakeholders during consultation, and how those matters have been addressed in the Environmental Assessment	Section 6.7
Department of Environment, Climate Change and Water (DECCW) (11/09/2009)	Water Quality	Chapter 8 and Appendix E
	The environmental outcomes for the project should be: <ul style="list-style-type: none"> • there is no pollution of waters during the construction and operational phases of the development; 	Section 8.4 and 8.5 and Appendix E (Section 4.1 and 4.2)
	<ul style="list-style-type: none"> • there is no inconsistency with any relevant Statement of Joint Intent established by the Healthy Rivers Commission; and 	Chapter 8 and Appendix E (Section 1.3, 2.5)
	<ul style="list-style-type: none"> • this is acceptable in terms of the achievement or protection of the River Flow Objectives and Water Quality Objectives. 	Section 8.4 and Appendix E (Section 4.3)
	<ul style="list-style-type: none"> • the EA should document the measures that will achieve the above outcomes. 	Section 8.6 and Appendix E (Section 5)
	Contaminated Land	Chapter 7
	<ul style="list-style-type: none"> • The EA must document the identification, assessment and management of any land contamination to ensure that the land is not allowed to be put to a use that is inappropriate because of the presence of contamination. 	Section 7.2
	Noise	Chapter 14
	<ul style="list-style-type: none"> • The project is to be designed, constructed and operated and maintained so that there is no adverse impact from noise (including traffic). 	Chapter 14
	Flora	Chapter 9 and Appendix F
	The EA is to include a comprehensive assessment including: <ul style="list-style-type: none"> • a field survey of the site should be conducted and documented in accordance with the draft "Guideline for threatened species assessment" and "Threatened Biodiversity and Threatened Species Assessment – Guideline For Developments and Activities". 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> • likely impacts on threatened species and their habitat need to be assessed, evaluated and reported on. The assessment should specifically report on the considerations listed in Step 3 of the draft guideline. 	Chapter 9 and Appendix F

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
	<ul style="list-style-type: none"> a description of the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on threatened species and their habitat. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> the EA needs to clearly state whether it meets each of the key thresholds set out in Step 5 of the draft guideline. 	Chapter 9 and Appendix F
	Heritage	Chapters 10 & 11 and Appendix G
	<p>The following sets out DECCW standard requirements for addressing potential impacts of the project on Aboriginal cultural heritage values.</p> <ul style="list-style-type: none"> The Environmental Assessment (EA) should address and document the information requirements set out in the draft 'Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation' (Department of Environment and Conservation 2005) and the 'Part 3A EP&A Act Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation' (Department of Planning and DEC 2007). 	Section 10.2 and Appendix G (Section 4.9)
	<ul style="list-style-type: none"> The EA should include surveys by suitably qualified archaeological consultants and include evidence of consultation with traditional Aboriginal custodians. 	Chapter 10 and Appendix G
	<ul style="list-style-type: none"> The EA should identify the nature and extent of impacts on Aboriginal Cultural Heritage values across the project area and the strategies employed to avoid I minimise these impacts. If impacts are proposed as part of the final development, clear justification for such impacts should be provided. 	Section 10.4 and 10.5 and Appendix G (Section 4.16 and 4.17)
	<ul style="list-style-type: none"> The EA should assess the archaeological and Aboriginal significance of the site's Aboriginal Cultural Heritage values. 	Section 10.3 and Appendix G (Section 4.15)
	<ul style="list-style-type: none"> Describe the actions that will be taken to avoid or mitigate impacts of the project on Aboriginal Cultural Heritage values. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. 	Section 10.7 and Appendix G (Section 4.17)
	<ul style="list-style-type: none"> The EA needs to clearly demonstrate that effective community consultation with Aboriginal communities has been undertaken in assessing impacts, developing options and making final recommendations. The DECCW supports broad-based Aboriginal community consultation and as a guide the 'Interim Community Consultation Requirements for Applicants (DECC 2005)' provides a useful model to follow. 	Section 10.3 and Appendix G (Section 4.9)
	<ul style="list-style-type: none"> If impacts on Aboriginal cultural values are proposed as part of the final development an assessment of the regional significance of the values to be impacted, the extent to which these values are protected elsewhere in the landscape and consideration of the proposed impacts in the context of 'inter generational equity' should be undertaken. 	Appendix G (Section 4.13)

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
NSW Office of Water (NOW) (01/09/2009)	Riparian Management	Chapter 8 and Appendix E
	<ul style="list-style-type: none"> Any works within riparian areas should be consistent with the Department of Water and Energy's Controlled Activity Guidelines (2008) and State policies. The environmental assessment (EA) should outline all works affecting riparian areas including any clearing, creek crossings, roads and tracks etc. The EA should also outline any mitigation and management measures such as erosion and sediment control. The EA should also outline all creeks and rivers affected by the proposal and how each will be managed, in particular major rivers or creeks that require specific management measures. 	Chapter 8 and Appendix E (Section 2.2 and 4.1)
	Water Issues	Chapter 8 and Appendix E
	<ul style="list-style-type: none"> The EA should outline all water requirements for the development (i.e. during construction and post construction) and where the water will be sourced ie groundwater or surface water. All water required for the development must be accounted for and appropriately licenced with the Department. Any monitoring bores associated with the development will need to be licenced. If all proposed sources are identified early, the Department is able to provide accurate advice regarding our requirements. 	Chapter 8 and Appendix E (Section 1.4 and 2.3)
	<ul style="list-style-type: none"> Dewatering of tower footings may become an issue in low lying areas particularly towards the coast. If groundwater is likely to be intercepted as a result of the works then a dewatering licence is required, which must be obtained prior to groundwater interception. 	Chapter 8 and Appendix E (Section 4.2)
	<ul style="list-style-type: none"> At present, both the Water Act 1912 and Water Management Act 2000 are active with water sharing plans guiding the management of water in some areas. If the proposal is within a gazetted water sharing plan area the assessment is required to demonstrate consistency with the rules of the water sharing plan. The development route may also be affected by current embargoes for new water licences, however further information can be provided on this if required, 	Chapter 8 and Appendix E (Section 2.2)
	<ul style="list-style-type: none"> The EA will need to include an assessment of the potential effects of the development on groundwater and surface water quality and quantity, surface water hydrology, other groundwater and surface water users, acid sulphate soils and groundwater dependent ecosystems. 	Chapter 8 and Appendix E (Section 4)
	Acid Sulphate Soils	Chapter 7
	The environmental assessment must identify all areas of acid sulphate soils and identify mitigation and management options in accordance with the ASSMAC guidelines. The Department has concerns about the potential effects of ASS on groundwater quality	Chapter 7 and Appendix E (Section 3.3)
	Farm Dams	
	<ul style="list-style-type: none"> Farm Dams Policy: Any dams, ponds or sediment basins to be constructed as part of the proposed development must be consistent with the NSW Farms Dam Policy. 	N/A. No dams are required as part of the Project.
	Flooding Issues	Chapter 8 and Appendix E
	The EA should address any flooding issues associated with the development and any impacts on landholders.	Chapter 8 and Appendix E (Section 3.2)

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
	Groundwater	Chapter 8 and Appendix E
	The EA should identify groundwater issues and potential degradation to the groundwater source and provide the following: <ul style="list-style-type: none"> • Details of the predicted highest groundwater table at the development site. 	Chapter 8 and Appendix E (Section 3.4)
	<ul style="list-style-type: none"> • Details of any works likely to intercept, connect with or infiltrate the groundwater sources. 	Chapter 8 and Appendix E (Section 4.2)
	<ul style="list-style-type: none"> • Details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes. 	Chapter 8 and Appendix E (Section 1.4)
	<ul style="list-style-type: none"> • Describe the flow directions and rates and the physical and chemical characteristics of the groundwater source. 	N/A
	<ul style="list-style-type: none"> • Details of the predicted impacts of any final landform on the groundwater regime. 	N/A
	<ul style="list-style-type: none"> • Details of the existing groundwater users within the area (including the environment) and include details of any potential impacts on these users. 	Chapter 8 and Appendix E (Section 3.4)
	<ul style="list-style-type: none"> • Assessment of the quality of the groundwater for the local groundwater catchment. 	Chapter 8 and Appendix E (Section 3.4)
	<ul style="list-style-type: none"> • Details of how the proposed development will not potentially diminish the current quality of groundwater, both in the short and long term. 	Chapter 8 and Appendix E (Section 4.2)
	<ul style="list-style-type: none"> • Details on preventing groundwater pollution so that remediation is not required. 	Chapter 8 and Appendix E (Section 5.3)
	<ul style="list-style-type: none"> • Details on protective measures for any groundwater dependent ecosystems (GDEs). 	N/A see Appendix E (Section 3.4)
	<ul style="list-style-type: none"> • Details of proposed methods of the disposal of waste water and approval from the relevant authority. 	Chapter 8 and Appendix E (Section 4.2)
	<ul style="list-style-type: none"> • Assessment of the need for an Acid Sulphate Management Plan (prepared in accordance with ASSMAC guidelines). 	Chapter 8 and Appendix E (Section 3.3)
	<ul style="list-style-type: none"> • Assessment of the potential for saline intrusion of the groundwater and measures to prevent such intrusion into the groundwater aquifer. 	Chapter 8 and Appendix E (Section 4.2)
	<ul style="list-style-type: none"> • Details of the results of any models or predictive tools used. 	N/A. Not required for this Project
	<ul style="list-style-type: none"> • Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on: • Details of any proposed monitoring programs, including water levels and quality data. 	N/A. No potential impact identified
	<ul style="list-style-type: none"> • Reporting procedures for any monitoring programs including mechanism for transfer of information. 	N/A. Monitoring programs not required
	<ul style="list-style-type: none"> • An assessment of any groundwater source/aquifer that may be sterilised as a consequence of the proposal. 	N/A. No groundwater would be sterilised

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
	<ul style="list-style-type: none"> Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category). 	N/A. Monitoring programs not required
	<ul style="list-style-type: none"> Description of the remedial measures or contingency plans proposed. 	Chapter 8 and Appendix E (Section 5)
	<ul style="list-style-type: none"> Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period. 	N/A. Monitoring programs not required.
	Surface Water	Chapter 8 and Appendix E
	<p>The assessment is required to consider the impact of the proposal on the watercourses and associated riparian vegetation within the site and provide the following:</p> <ul style="list-style-type: none"> Identify the sources of surface water. 	Chapter 8 and Appendix E (Section 3.2)
	<ul style="list-style-type: none"> Details of stream order (using the Strahler System). 	Chapter 8 and Appendix E (Section 3.2)
	<ul style="list-style-type: none"> Details of any proposed surface water extraction, including purpose, location of existing pumps, dams, diversions, cuttings and levees. 	Chapter 8 and Appendix E (Section 1.4)
	<ul style="list-style-type: none"> Detailed description of any proposed development or diversion works including all construction, clearing, draining, excavation and filling. 	Chapter 8 and Appendix E (Section 4)
	<ul style="list-style-type: none"> An evaluation of the proposed methods of excavation, construction and material placement. 	N/A.
	<ul style="list-style-type: none"> A detailed description of all potential environmental impacts of any proposed development in terms of vegetation, sediment movement, water quality and hydraulic regime. 	Chapter 8 and Appendix E (Section 4)
	<ul style="list-style-type: none"> A description of the design features and measures to be incorporated into <i>any</i> proposed development to guard against long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrological regime and sediment movement patterns and the identification of riparian buffers. 	Chapter 8 and Appendix E (Section 4 and 5)
	<ul style="list-style-type: none"> Details of the impact on water quality and remedial measures proposed to address any possible adverse effects. 	Chapter 8 and Appendix E (Section 4 and 5)
Land and Property Management Authority (LPMA) (04/09/2009)	General Addition Requirements	
	<p>The LPMA requests the following additional key issues and assessment requirements are addressed as part of the EA:</p> <ul style="list-style-type: none"> Detailed plans and drawings should cover the full development footprint and indicate the locations of towers and other electricity transmission infrastructure. 	Figures 3-2a-3-2ae (Vol 3)
	<ul style="list-style-type: none"> Plans and drawings should also indicate the locations of new waterway crossings and access roads as well as existing crossings and roads expected to be upgraded as part of the development. 	Figures 3-2a-3-2ae (Vol 3)
	<ul style="list-style-type: none"> Crossings across Crown waterways are to be constructed, upgraded and maintained to permit or maintain fish passage (as per; <i>Why do Fish Need to Cross the Road?</i> Fish Passage Requirements for Waterway Crossings) 	Chapter 4, 8 & 9 and Appendices E & F

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
	<ul style="list-style-type: none"> The types of conductors proposed to be used should be specified, and the implications of the use of such for local wildlife, including flying mammals, should be addressed in the EIA. 	Chapters 4 & 9 and Appendix F
	<ul style="list-style-type: none"> The EIA should incorporate, or provide for the development of, detailed vegetation management and erosion and sediment control plans for the proposed transmission line corridor. 	Chapters 7 & 9 and Appendix F
	<ul style="list-style-type: none"> Descriptions of the staging of the development should include anticipated sequencing of activities, such as the acquisition of any interests in land. 	Chapter 4
	<ul style="list-style-type: none"> A notice should be sent to both the NSW Aboriginal Land Council (formerly appointed as the representative Aboriginal body) and NSW Native Title Services Limited (the entity that currently performs the functions of the Aboriginal representative body but which has not been formally recognised) 	Chapter 10 and Appendix G
Kyogle Council (08/09/2009)	Kyogle Council requests that the following items be addressed in the EA:	
	<ul style="list-style-type: none"> All access tracks which join roads under the control of Kyogle Council that will require vehicular accesses, be constructed to Council's requirements. 	Chapters 4 & 13
	<ul style="list-style-type: none"> Any Council roads to be used for transport of heavy equipment or materials for the project are to be assessed for their ability to carry anticipated loads without damage to road pavements or bridges. 	Chapter 4 and 13
	<ul style="list-style-type: none"> Minimum clearances above roads from overhead cables and from road centreline for structures are to be observed and provision made for possible future realignments where applicable. 	Chapter 13
	<ul style="list-style-type: none"> Preservation of roadside vegetation as far as possible and protection of known wildlife corridors which may cross the easement. 	Chapter 9 and Appendix F
Border Rivers-Gwydir Catchment Management Authority (BRG-CMA) (16/09/2009)	The EA should include the following:	
	<ul style="list-style-type: none"> Any proposed mitigation measures involving offsets for loss of native vegetation should be calculated using the Department of Environment, Climate Change and Water (DECCW) biobanking method. 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> Impacted areas identified as ecologically significant should be mapped at a suitable scale. This should include GPS reference points for significant species. 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> An assessment of matters listed under the Environment Protection and Biodiversity Conservation Act (1999) should also be undertaken. 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> The BRG-CMA is also concerned with the ongoing potential spread of weeds and likely soil erosion issues during the construction and maintenance phases for this type of development. Any proposed mitigation measures proposed should be best practice and have detailed procedures for how this information will be disseminated to all contractors etc. 	Chapters 7 & 9 and Appendix F
Roads and Traffic Authority (RTA) (DOP received the letter on 26/10/10, TransGrid received the letter 4.11.10)	Where the proposed power line crosses a state road (such as the New England or Bruxner Highways), under Section 138 of the NSW Roads Act 1993, the proposed works would require formal approval from the RTA and the appropriate Council.	Chapter 5

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
Industry & Investment NSW (I&I NSW) (17/09/2009)	Forestry Issues	
	I&I NSW have suggested that the reference to conservation areas under land use planning impacts be amended to specifically also include the impact on Special Management Zones on State forest.	Chapter 9 and Appendix F
	Fisheries Issues	
	<ul style="list-style-type: none"> The EA should identify the location of proposed permanent and temporary watercourse crossings necessitated by the proposal and justify these against alternate access routes. Where crossings are to be installed a brief assessment of the waterway and a description or draft design of the proposed crossing is required. Waterway assessments and design of crossings should be consistent with fish friendly guidelines. 	Chapters 4, 8 & 9, Appendix E (Section 4.1) and Appendix F
	<ul style="list-style-type: none"> Where existing crossings can be used but require upgrading the EA should outlined the scope of works and whether the works will exacerbate and prolong the life of an existing barrier to fish passage. 	Chapters 4, 8 & 9, Appendix E (Section 4.1) and Appendix F
	<ul style="list-style-type: none"> The likely height of transmission lines at waterway crossings should also be indicated with reference to existing riparian vegetation and endemic riparian vegetation. The EA should outline where ongoing management of riparian vegetation will be required and outline the regularity and scale of these works. 	Chapters 4, 8 & 9, Appendix E (Section 4.1) and Appendix F
	Agricultural Issues	
	I&I NSW recommend the following guiding principles to minimise the impacts of infrastructure development proposals on agricultural resources and enterprises.	
	<ul style="list-style-type: none"> New infrastructure is located within existing infrastructure corridors where ever possible. 	Chapter 4
	<ul style="list-style-type: none"> Land use conflicts are minimised and the expectations of local communities are managed. 	Chapter 6 and Appendix D
	<ul style="list-style-type: none"> Issues such as weeds, pest animals, biosecurity risks and soil erosion are addressed and not made any worse by the development proposal. 	Chapters 7, 9 & 16 and Appendix F
	<ul style="list-style-type: none"> Development proposals contain sufficient information to identify suitable impact mitigation responses for all likely agricultural impacts. 	Chapters 4 & 18
	<ul style="list-style-type: none"> The EA should assess any of the agricultural airstrips in the vicinity of the proposed transmission line as well as an assessment of the extent of aircraft use by farms within the study area. The proposed transmission line should be assessed for impacts on agricultural aerial activates and air safety. The use of suspended markers on long stretches of transmission lines across gullies or near flight paths or rural airstrips should be considered. 	Chapter 2 and Appendix B
	<ul style="list-style-type: none"> The environmental assessment should also consider areas in which the power line may affect the movement of agricultural machinery under the line. It is assumed that the transmission line will have substantial ground clearance. However it would still be beneficial for impacts on the safe use of farm machinery and routine farm activities be considered as part of the environmental assessment. 	Chapter 2 and Chapter 18
	Weed and Pest Management	
	Weed and pest management measures should include: <ul style="list-style-type: none"> to limit the site spread of weeds via vehicles and machinery (e.g. via segregation, wash down or monitoring provisions) 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> targeting soil stockpiles, roadsides and any other disturbed areas (weed germination and invasion is stimulated by disturbance) 	Chapter 9 and Appendix F

Government Authority	Paraphrased Requirement * Full outline of where the Ecological DGRs have been addressed can be found in Appendix F Biodiversity (Appendix A).	Relevant EA Chapter or Appendix
	<ul style="list-style-type: none"> recommend measures include cleaning of vehicle tyres before leaving a property, cleaning of foot wear and minimising and monitoring soil movement between locations 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> monitoring programs for noxious and problematic weeds and pests on site and in the surrounding areas 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> measures to mitigate noxious and problematic weeds and pests should they be found 	Chapter 9 and Appendix F
	Biosecurity and Emergency Impacts	
	<p>To protect biosecurity and enable tracing of potential disease spread, the EA should identify and complete risk assessment of:</p> <ul style="list-style-type: none"> potential bio-security risks such as pest and diseases 	Chapters 9 & 16 and Appendices F & I
	<ul style="list-style-type: none"> risk of contact with animal or plant diseases 	Chapters 9 & 16 and Appendices F & I
	Site Rehabilitation	
	<p>I&I NSW recommends that the proponent commit to preparing a rehabilitation management plan that:</p> <ul style="list-style-type: none"> clearly documents environmental policies and rehabilitation objectives 	Chapters 4, 7, 8, 9, 10 & 11 and Appendices E, F & G
	<ul style="list-style-type: none"> comprehensively reviews the relevant issues and rehabilitation risks 	Chapters 4, 7, 8, 9, 10 & 11 and Appendices E, F & G
	<ul style="list-style-type: none"> identifies mitigation measures to prevent excessive dust, soil erosion and the sedimentation of waterways 	Chapters 4, 7, 8 & 15
	<ul style="list-style-type: none"> documents the proposed monitoring program 	Chapter 19
	<ul style="list-style-type: none"> describes the proposed future land use options and justifies any permanent impacts on agricultural or other primary industries 	Chapters 4, 18 & 20
	<p>In particular, rehabilitation plans should document:</p> <ul style="list-style-type: none"> priority land uses of the site and plan to re-establish these as soon as practical 	Chapters 4 & 20
	<ul style="list-style-type: none"> project staging and the timeframes for site rehabilitation 	Chapter 4
	Mineral Resources	
	<p>The EA should consider the potential for the project to impact upon any mineral resource including metallic minerals, industrial and extractive minerals, petroleum, gas and coal resources.</p>	Appendix B
	<p>DPI -Mineral Resource Division (DPI -MR) requires the proponent to adopt the following strategies regarding mineral resources in its planning and EA:</p> <ul style="list-style-type: none"> Operating mines and quarries should be protected from sterilisation or hindrance by encroachment of incompatible adjacent development. 	Appendix B
	<p>The DPI MR requires the proponent to contact any relevant minerals related stakeholders to discuss the proposed transmission line in relation to the associated land use impacts</p>	Chapter 6 and Appendix D
	<p>Where the proposed power line crosses a state road (such as the New England or Bruxner Highways), under Section 138 of the NSW Roads Act 1993, the proposed works would require formal approval from the RTA and the appropriate Council.</p>	Chapter 5

Table A2 Supplementary Director General Requirements

Government Authority	Paraphrased Requirement	Relevant EA Chapter or Appendix
Department of Sustainability Environment, Water, Populations and Communities (SEWPC) (16/03/10)	*Full outline of where the Supplementary DGRs have been addressed can be found in of Appendix F Biodiversity (Appendix A). The assessment should include enough information about the controlled action and its relevant impacts to allow the Commonwealth Minister for the Environment, Heritage and the Arts to make an informed decision whether or not to approve the controlled action under the EPBC Act.	Volumes 1, 2 & 3
	The following information will need to be provided: <ul style="list-style-type: none"> • General Background Information including location, background etc. 	Chapters 1, 2,3 & 4
	<ul style="list-style-type: none"> • Description of controlled action, including components, location, area, structures to be built, design parameters, timing and duration and feasible alternatives. 	Chapters 2, 3 & 4
	<ul style="list-style-type: none"> • Description of the existing environment, focusing on threatened species, ecological communities, habitats and their respective distribution. 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> • A description of the relevant impacts of the controlled action. 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> • Proposed safeguards, mitigation and offset measures. 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> • Other approvals and conditions, including details of any local or State government planning scheme, system or policy. 	Chapter 5, 19 & 20
	<ul style="list-style-type: none"> • Economic and social matters 	Chapters 2, 18 & 20
	<ul style="list-style-type: none"> • Information sources. 	Chapter 9 and Appendix F
	<ul style="list-style-type: none"> • Consultation and identification of affected parties. 	Chapters 6 & 9 and Appendices D & F