APPENDIX 1-3-SV1.4

TOR CHECKLIST

Wandoan Coal Project

TERMS OF REFERENCE
FOR A
SUPPLEMENTARY ENVIRONMENTAL IMPACT STATEMENT
VOLUME 1
UNDER PART (4) OF THE QUEENSLAND
STATE DEVELOPMENT AND PUBLIC WORKS ORGANISATION ACT 1971

The Coordinator-General

Oct-09

		EIS	Supplementary EIS (where relevant information has been updated from the EIS)
Wandoan Project - Terms of Reference	**Covered Y/N/ NA**	**Section Number of Chapter or Executive Summary**	**Section Number of Chapter**
PART B—Specific requirements: content of the EIS			
The EIS should include the following sections but need not be limited to these sections or inferred structure.			
Executive summary			
The function of the executive summary is to convey the most important aspects and options relating to the project to the reader in a concise and readable form. It should use plain English and avoid the use of jargon. The executive summary should be written as a standalone document, able to be reproduced on request and distributed to interested parties who may not wish to read or purchase the EIS as a whole.			
The structure of the executive summary should follow that of the EIS, and focus strongly on the key issues to enable the reader to obtain a clear understanding of the project and its potential adverse and beneficial environmental, social and economic impacts and the management measures to be implemented by the proponent to mitigate all residual impacts.			
The executive summary should include:			
• the title of the project	Y	ES Section 1.1	
• name and contact details of the proponent, and a discussion of previous projects undertaken by the proponent and their commitment to effective environmental management	Y	ES Section 1.7	
• a concise statement of the aims and objectives of the project	Y	ES Section 1.1	
• the legal framework, decision-making authorities and Advisory Agencies	Y	ES Section 1.6	
• an outline of the background and need for the project, including the consequences of not proceeding with the project	Y	ES Section 3.1 and 3.2	
• a description of the alternative options considered and reasons for the selection of the proposed development option	Y	Sections 2.8.1, 2.9.1	
• a brief description of the project (pre-construction, construction and operational activities) and the existing environment, utilising visual aids where appropriate	Y	ES Sections 2 and 4	
• an outline of the principal environmental impacts predicted (including economic and social impacts) and the proposed environmental management strategies (including waste minimisation and management) and commitments to minimise the significance of these impacts	Y	ES Section 4	
• Community attitudes to the project and community consultation undertaken	Y	ES Section 4.1	
• detailed maps of the proposed project location.	Y	ES Section 1	
Glossary of terms			
A glossary of technical terms, acronyms and abbreviations should be provided.	Y	Glossary	
1 Introduction			
The introduction should clearly explain the function of the EIS, why it has been prepared and what it sets out to achieve. It should also define the audience to whom it is directed, and contain an overview of the structure of the document.	Y	1.2.4, 1.4.3	
1.1 Project proponent			
This section should describe the experience of the project proponent (and its joint venture partners), including the nature and extent of business activities, experience and qualifications, and environmental record, including the proponent's environmental policy.	Y	1.3, 1.4	
1.2 Project description			
This section should provide a brief description of the key elements of the project including associated infrastructure requirements. The location of the project and its infrastructure requirements should be described and mapped. Detailed descriptions of the project should follow in Section 2.	Y	1.1, 1.2, 1.5	1.1, 1.2, 1.5
1.3 Project rationale			
This section should provide a statement of the objectives of the project and a brief outline of the events leading up to the project's formulation, including alternatives, envisaged time scale for implementation and project life, anticipated establishment costs and actions already undertaken within the project area.	Y	1.5.4, establishment cost in 22.4	
1.3.1 Project need, costs and benefits			
The justification for the project should be described, including its strategic, economic, environmental and social implications and its technical feasibility and commercial viability. The status of the project should be discussed in a regional, state and national context. The project's compatibility with relevant policy and regulatory frameworks should also be described.	Y	1.5.4, 2.2, 2.15	
This section should also summarise the economic and social costs and benefits for businesses and the wider community arising from the project; regional socio-economic issues including cultural impacts, community disruption, related land use changes, employment, skills development and any workforce accommodation issues; and increased demands on natural resources.	Y	2.2, 2.13, 2.14, 2.15	
1.3.2 Relationships to other projects			
This section should also describe how the project 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 area affected by the project.	Y	1.1.1	2.17
1.4 Alternatives to the project			
This section should describe feasible alternatives, including conceptual, technological and locality alternatives to the project, and discussion of the consequences of not proceeding with the project. Alternatives should be discussed in sufficient detail to enable an understanding of the reasons for preferring certain options and courses of action and rejecting others. Comparative environmental impacts of each alternative should be summarised.	Y	2.4.1, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.13	2.10
Should water supply, power, transport and/or storage infrastructure be included as an element of the project or as a separate but inter-related component of the project, this section should include a description of and rationale for such infrastructure.	Y	2.11.1, 2.11.2, 2.12, 2.14	2.12
Reasons for selecting the preferred options should include technical, commercial, social and natural environment aspects. In particular, the principles of environmentally sustainable development and sustainable development should be included. The relationship of options chosen for waste management and any emissions produced should be detailed.	Y	1.4, 2.5, 6.10	2.10, 2.12
This information is required to assess why the scope of the project is as it is and to ensure that the environmentally sustainable development principles and sustainable development aspects have been considered and incorporated during the scoping and planning of the proposal.	Y	1.4, 2.5, 6.10	
1.5 Co-location opportunities			
Where linear infrastructure is proposed (i.e. water pipeline, electricity transmission and distribution lines, gas pipelines etc) opportunities may exist for efficiency gains and the mitigation of environmental and property impacts through the location of other proposed linear infrastructure in, near or parallel to the proposed infrastructure.	Y	2.12.1, 6.10.2	
The project proponent should identify any proposals to develop infrastructure within the vicinity of the proposed linear infrastructure investigation corridor. Such proposals would be limited to those projects which are in the public arena during the period of preparation of this EIS and for which a proponent entity can be readily identified.	Y	2.12.1, 6.10.2	
It would be inappropriate for this EIS to evaluate the environmental impacts of other infrastructure not directly required for this project. However, the EIS should describe the implications of locating other forms of linear infrastructure within or near the infrastructure. Where co-location may be likely, the EIS should consider opportunities to coordinate or enhance any of the impact mitigation strategies proposed for the infrastructure through cooperation with other proponents in the locality.	Y	2.12, 6.10.2	
1.6 The environmental impact statement process			
1.6.1 Methodology of the EIS			

This section should make clear the objectives of the EIS process under the SDPWO Act, the environmental authority approval process under the EP Act and mining lease approval under the MRA. This section should include a description of the impact assessment process steps, timing and decisions to be made for relevant stages of the project, in the context of the EP Act and MRA process. In particular, this section should outline mechanisms in the process for public input and the public release of an EIS which will specify all responses to stakeholder submissions.	Y	1.5.1, 1.5.2, 1.5.5, 1.5.6	1.5
The information in this section is required to ensure:			
• relevant legislation is addressed	Y	1.5.1	
• readers are informed of the process to be followed	Y	1.5.2, 1.5.4, 1.5.5	
• the stakeholders are aware of any opportunities for input and participation.	Y	1.5.6	
1.6.2 Objectives of the EIS			
This section should provide a statement of the objectives of the environmental impact assessment. The structure of the EIS can then be outlined as an explanation of how the EIS will meet its objectives. The purpose of the EIS is to:	Y	1.5.2, 1.5.4	1.5
• provide public information on the need for, and likely effects of, the project on the natural, social and economic environment	Y	1.5.2	
• set out acceptable standards and levels of impacts (both beneficial and adverse) on environmental values	Y	1.5.2	
• demonstrate how environmental impacts can be managed through the protection and enhancement of the environmental values.	Y	1.5.2	
The role of the EIS in providing information for the formulation of the environmental management plan (EMP) for the project should be discussed. Discussion of options and alternatives is a key aspect of the EIS.	Y	1.5.2	
1.6.3 Submissions			
The reader should be informed as to how and when public submissions on the EIS will be addressed and taken into account in the decision-making process. The EIS should inform the reader as to how to make submissions and what form the submissions should take.	Y	1.5.6	
1.7 Public consultation process			
An appropriate public consultation program is an important component of the EIS process.			
This section should outline the methodology that will be adopted to:			
• identify the stakeholders and how their involvement will be facilitated	Y	4.1, 4.2	
• identify the process conducted to date and future consultation strategies and programs, including during the operational phase of the project	Y	Chapter 4	4.2, 4.6
• indicate how consultation involvement and outcomes will be integrated into the EIS process and future site activities, including opportunities for engagement and provision for feedback and action if necessary.	Y	4.5, 4.6	4.2, 4.3
A list of the stakeholders consulted during the program should be provided, as well as any meetings held, presentations made and any other consultation undertaken for the EIS process.	Y	4.1, 4.2,4.3	4.2,4.3
The public consultation process should identify broad issues of concern to local and regional community and interest groups and address issues from project planning through commissioning and project operations. A consultation plan should be prepared during the initial phase of the EIS process. This should identify:	Y	All Chapter 4	
• the types of activities to be undertaken	Y	All Chapter 4	
• timing			
• target stakeholder/community representatives			
• integration with other EIS activities and the project development process			
• consultation responsibilities			
• communication protocols			
• reporting and feedback arrangements.			
Information about the consultation process that has taken place and the results should be provided.	Y	All Chapter 4	4.2, 4.3, 4.6
The public consultation program should provide opportunities for community involvement and education. It may include interviews with individuals, public communication activities, interest group meetings, production of regular summary information and updates, and other consultation mechanisms to encourage and facilitate active public consultation.	Y	All Chapter 4	4.2, 4.3, 4.6
1.8 Project approvals			
1.8.1 Relevant legislation and policy requirements			
The aim of this section is to provide the reader with an explanation of the legislation and policies controlling the approvals process for the project. Reference should be made to the SDPWO Act, EP Act, MRA, *Integrated Planning Act 1997* (IPA), *Transport Infrastructure Act 1994*, *Land Act 1994*, *Water Act 2000, Vegetation Management Act 1999, Cultural Heritage Act 2003, Land Protection (Pest and Stock Route Management) Act 2002, Fisheries Act 1994, Electricity Act 1994, Nature Conservation Act 1992*, *Soil Conservation Act 1986*, *Forestry Act 1959* and other relevant Queensland laws. All requirements of the EPBC Act and *Native Title Act 1993* should also be included.	Y	3.2, 3.3, 3.4, 3.5	Chapter 3
The EIS should describe the approval process resulting from the gazettal of this project as a significant project pursuant to the SDPWO Act and outline the linkage to other relevant state and federal legislation. This outline should describe the public notification processes and appeal rights that will be available in the anticipated approval processes.	Y	1.5.2, 1.5.5, 1.5.6, 3.3.1, 3.5, Appendix 3-1-V1.4	
The EIS should indicate the level of approvals anticipated by the proponent for each project element in order that approval agencies are able to determine the completeness of the information presented and the scope to generate the anticipated approvals.	Y	3.5, Appendix 3-1-V1.4	
Local government planning controls, local laws and policies applying to the development should be described, and a list provided of the approvals required for the project and the expected program for approval of applications.	Y	3.4, 3.5, Appendix 3-1-V1.4	
This information is required to assess how the legislation applies to the proposal, which agencies have jurisdiction, and whether the proposed impact assessment process is appropriate.	Y	3.2, 3.3, 3.4, 3.5	
1.8.2 Planning processes and standards			
This section should discuss the project's consistency with existing land uses or long-term policy framework for the area (e.g. as reflected in local and regional plans), and with legislation, standards, codes or guidelines available to monitor and control operations on site. This section should refer to all relevant state and regional planning policies. This information is required to demonstrate how the proposal conforms to state, regional and local plans for the area.	Y	3.3, 3.4, 8.3.3	
1.9 Accredited process for controlled actions under Commonwealth legislation			
Projects that are declared 'significant projects' pursuant to s.26(1)(a) of the SDPWO Act requiring the preparation of an EIS may also be controlled actions under the federal EPBC Act. In which case, the federal government may accredit the state's assessment process under Part 8 of the EPBC Act.	Y	3.2.1, 3.5	
Under an accredited state EIS process, it will be necessary for TOR to address potential impacts on the matters of national environmental significance (NES) that were identified in the 'controlling provisions' when the proposed project actions were declared controlled actions on 21 July 2008.	Y	3.2.1, 17A.4.8, 17A.6.1	17A.4.8
It is preferable that a stand-alone report be provided as an appendix to the EIS that exclusively and fully addresses the issues relevant to the controlling provisions, for each component of the Wandoan Coal Project. In which case, it should structured as per the following outline for each component of the Wandoan Coal Project.	Y	3.2.1, TR 17A-1-V1.5, Attachment J	STR 17A-1-SV1.5 section 5.1
1 Introduction	Y	3.2.1, TR 17A-1-V1.5, Attachment J	
2 Description of proposed action (as it would impact on NES matters)	Y	3.2.1, TR 17A-1-V1.5, Attachment J	
3 Description of the affected environment relevant to the controlling provisions (i.e. describe the features of the environment that are NES matters protected under the EPBC)	Y	3.2.1, TR 17A-1-V1.5, Attachment J	
4 Assessment of impacts on NES matters and mitigation measures	Y	3.2.1, TR 17A-1-V1.5, Attachment J	
5 Conclusions	Y	3.2.1, TR 17A-1-V1.5, Attachment J	
6 References.	Y	3.2.1, TR 17A-1-V1.5, Attachment J	
Alternatively, as a minimum requirement, the EIS should provide separate discussions under sub-headings in the relevant sections that describe the values and address the potential impacts on NES matters. The locations of those sub-headings should be readily identifiable from the table of contents. For example, if one of the controlling provisions was 'Listed threatened species and communities', then subsections, headed 'Matters of national environmental significance', should be placed in section 3.3 (Nature conservation) under both the 'Description of environmental values' and 'Potential impacts and mitigation measures' headings. Those subsections should address exclusively and fully the issues relevant to the controlling provisions.	Y	Chapter 17, TR 17A-1-V1.5	
2 Description of the project			

The objective of this section is to describe the project, and its various components (as outlined in the preamble), through its lifetime of construction, operation and decommissioning (including rehabilitation). This information is required to allow assessment of all aspects of the project, including which approvals may be required and how they may be managed through the life of the project.			
2.1 Overview of project			
The EIS should provide an overview of the project to put it into context. This section should include:			
• a description of the key components of the project through the use of text and design plans where applicable	Y	1.1, 1.5.3, 6.4-6.8	1.2, Chapter 6
• the expected cost and overall duration and timing of the project	Y	1.5.3 - 1.5.4	
• the employment benefits from the construction and operational phases of the project	Y	22.5.1, 22.5.2	
• a summary of any environmental design features of the project should be presented.	Y	Chapter 27	
2.1.1 Mine			
This section should provide details on aspects of the mine components of the project, including:			
• the location of the proposed mine, illustrated on maps	Y	1.2	
• probable pit boundaries and mine path	Y	6.4.2	1.2, 6.2, 6.3
• mine development sequence or timeframes	Y	6.4.2	6.3, 6.4
• proposed stream diversions and water storages	Y	11.4.5	11.4.5
• any road and other infrastructure diversions (water pipelines, electricity transmission lines etc.)	Y	6.7.2, 6.7.9,	6.6.2
• any final void to be left at the cessation of mining.	Y	6.4.3, 9.6.6, 25.4.6	6.4.4, 25.4.6
The rationale for the preferred operational program should be explained. The identification of all site access points to, from and within the project should also be identified on maps, to assist in the assessment of emergency planning.	Y	6.7.3	
2.1.2 Associated mine infrastructure			
This section should provide details on the following aspects of the mine's associated infrastructure (e.g. coal handling facilities and tailings storage facilities), including any infrastructure associated with delivery of coal and secondary coal distribution infrastructure such as:			
• a description of plant and equipment to be employed	Y	6.4.4 - 6.6	
• the capacity of plant and equipment	Y	6.4.4 - 6.6	
• water requirements	Y	6.7.10, 11.4.3, 11.4.4	
• chemicals to be used.	Y	23.4.2	
Concept and layout plans should be provided highlighting proposed buildings, structures, plant and equipment associated with the processing operation. The nature, sources, location and quantities of all materials to be handled, including the storage and stockpiling of raw materials, should be described.	Y	6.4-6.8	
2.1.3 Ecologically sustainable development			
The EIS should provide a comparative analysis of how the project conforms to the objectives for ecologically sustainable development (see the *National Strategy for Ecologically Sustainable Development 1992* available from the Australian Government Publishing Service).	Y	6.10	
This analysis should consider the cumulative impacts (both beneficial and adverse) of the project from a life-of-project perspective, taking into consideration the scale, intensity, duration or frequency of the impacts to demonstrate a balance between environmental integrity, social development and economic development.	Y	Chapter 26	
This information is required to demonstrate that sustainable development aspects have been considered and incorporated during the scoping and planning of the project.	Y	6.10	
2.2 Location			
The regional and local context of the project should be described and illustrated on maps at suitable scales and reference points. Real property descriptions of the project site should be provided. Maps should show the precise location of the project area, and in particular:			
• the location of the resource to be explored, developed or mined	Y	1.2, 6.4	
• the location and boundaries of land tenures, in place or proposed, to which the project area is or will be subject	Y	1.2, 6.4	1.2, 6.3
• the location and boundaries of mining tenures, granted or proposed, to which the project area is or will be subject	Y	1.2, 6.4	1.2, 6.3
• the location and boundaries of the project footprint showing all key aspects, including mine excavation(s), stockpiles, areas of fill, watercourses, plant locations, water storages, buildings, bridges, culverts, hardstands, car parks and any final void to be left at the cessation of mining etc	Y	6.4.2	Chapter 6
• any part of the resource not intended to be mined and any part of the resource that may be sterilised by the proposed mining operations	Y	9.3.4	
• the location of all proposed project transport and coal loading infrastructure for both new works and upgrades of existing infrastructure, including the various coal transport options considered with an explanation for the rationale for the preferred transport option(s) for the project	Y	6.6.1, 6.6.2	
• the location of any proposed buffers surrounding the working areas	Y	16.5.2	1.2.1, 6.3.2
• the identification of all site access points to, from and within the project on maps, to assist in the assessment of emergency planning.	Y	6.6.2, 6.6.3	
Consideration should be given to providing a rectified air photo enlargement to illustrate components of the project in relation to the land and mining tenures and natural and built features of the area.	Y	Figure 6.1	Figure 6-1-SV1.3
2.3 Construction			
The extent and nature of the project's construction phase should be described (as well as any works required off site enabling construction to commence, e.g. road upgrades), including a map at reasonable scale that shows the footprint of the mine and construction works. The description should include the type and methods of construction, the construction equipment to be used and the items to be transported onto the construction site including the quarry sites from which any gravel/rock is extracted.	Y	5.3, 5.4, 5.5, 5.6.3, 5.7, 5.8, 5.12.6	
Any staging of the project should be described and illustrated showing site boundaries, development sequencing and timeframes.	Y	5.4, 5.5, 5.6, also in 6.4.2, Figure 6-4	5.1, 5.2.3, 5.3.3
2.3.1 Mine			
This section should provide a description of construction activities relating to the project including:	Y	5.11.1, 5.11.2, 5.12.6, 5.3, 5.4, 5.5	
• site access:			
– upgrading of roads, railways and other infrastructure			
– clearing			
– establishment requirements for construction facilities.			
• construction requirements, including source and extraction of construction inputs and materials, including construction water:	Y	5.3, 5.4, 5.5	
– details of the method of construction of the mine and volumes of material required			
– any staging of construction activities.			
• type, source, quantity and method of transport of construction materials	Y	5.8	
• general construction standards and site management, including environmental and safety management	Y	5.9, 5.10, 5.12.15	
• an assessment of expected physical and chemical properties and quantities of soil/rock to be excavated	Y	5.2	
• details of any potential disruption to flows of waterways during construction and any diversion works required	Y	5.12.4, 5.12.5	
• relocation of existing infrastructure	Y	6.7.2	
• timetable for construction, particularly noting seasonal rainfall or flows	Y	5.3 - 5.6	5.1
• the hours of operation	Y	5.7.3	
• emergency aid/medical facilities to be provided on site	Y	5.9, 5.12.15	
• the construction methods and containment/disposal of construction spoil	Y	5.12.2, 5.12.3	
• solid and liquid waste handling.	Y	5.12.11	
2.3.2 Associated infrastructure			
This section should provide a description of construction activities relating to the project's associated infrastructure, including for transport of coal and water:	Y	Chapter 6, Volume 1.3	
• a map showing location of any works	Y	Chapter 6, Volume 1.3	
• on-site plans, layouts, boundaries and elevations	Y	Chapter 6, Volume 1.3	
• detailed concept and staging (if any proposed) for additional transport facilities and locations	Y	Chapter 6, Volume 1.3	
• plant and machinery likely to be involved	Y	5.6.3	
• supply and storage of materials—volume, composition, handling and storage during construction	Y	5.9, 12.4	
• extent that service corridors will be used during construction and maintenance	Y	12.4	
• width of vegetation clearing required. This information must indicate where vegetation to be cleared has significant conservation value (such as sensitive environmental areas and creek crossings), and must also reference where in the EIS the impacts on such vegetation have been addressed	Y	Chapter 17A	5.3.3
• the location(s) of any road/rail crossings along proposed conveyor/water pipeline routes for the project	Y	Chapter 11, Chapter 12	
• typical crossing techniques including restoration works that would be used at creek crossings, and road, rail, and other service corridor crossings	Y	Chapters 11, 17A, 17B, 25	

• disposal of plant-matter left after clearing vegetation	Y	6.8, 6.10, Chapter 18	18.7
• details of any hydrostatic testing procedures (discussion of water usage for this activity must be addressed in section 3)	Y	Chapter 11, Chapter 27	
• cleanup and restoration (rehabilitation) of areas used during construction including any accommodation facilities and storage areas	Y	5.6.6, Chapter 26	
• disposal/reuse of surplus excavated material and if this material can be coordinated with concurrent construction activities in the vicinity.	Y	5.2, Chapter 9	
2.4 Operations			
2.4.1 Mine and associated infrastructure			
The EIS should include a description of the following:			
• mine life and coal resource base:	Y	6.3.1, 6.3.2	
– the proposed mine life and an outline of the coal resource base			
– the quantity of coal to be mined annually including any proposed ramping-up of production or staging of development.			
• mining methods and equipment:	Y	6.3.3	
– the mining type and methods to be used, including the major equipment to be used in the various components of the operation			
– the use of different techniques in areas of different topographic or geo-technical character.			
• mine sequencing:	Y	6.3.2, 6.3.3	
– the proposed sequence and timing of mining of each seam within the mining lease			
– the physical extent of excavations, including proximity of mining to any state-controlled or local roads to ensure management of any potential for subsidence of road infrastructure from mining			
– the location of stockpiles of overburden or coal reject/tailings to be handled during the project's operation or left after mining ceases, including the rate of throughput of stockpiles of product, reject and overburden			
– the proposed progressive backfilling of excavations			
– the area disturbed at each major stage of the project.			
• processing and products:	Y	6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.5	
– concept and layout plans highlighting proposed buildings, structures, plant and equipment			
– the nature, sources, location and quantities of all materials to be handled, including the storage and stockpiling of raw materials			
– the quantities and characteristics of the products produced on an annual basis			
– the source, quantities and uses of water			
– indicative process flow-sheets showing material balances for the processing plant, and the anticipated rates of inputs, along with similar data on products (e.g. product or washed coal), wastes (e.g. tailings and coarse rejects) and recycle streams (e.g. water).			
• ongoing evaluation and exploration activities:	Y	6.3.5	
– the extent and nature of any proposed ongoing exploration or geological and geotechnical evaluation within the project area that may be required over the life of the project.			
• coal handling:	Y	6.4.1, 6.4.2	
– the proposed methods and facilities to be used for coal storage and for transferring coal from the mining lease to the proposed delivery options, including on plans at an appropriate scale			
– any environmental design features of coal stockpiling and blending at any off-site facilities			
– the capacity of the rail option to handle the proposed coal volumes generated by the project over all phases of development.			
• associated infrastructure	Y	6.6.10, 6.6.5, 6.6.1, 6.6.9	
– the proposed sources and facilities to supply water for potable and non-potable uses			
– the proposed methods and facilities for wastewater treatment and disposal			
– size, location and configuration of accommodation facilities outside of the mining lease area			
– location, size and facilities required for the supply of coal seam methane gas for on-site power supply.			
2.5 Rehabilitation and decommissioning			
This section should describe the options, strategies and methods for progressive and final rehabilitation of the environment disturbed by the project. The strategic approach to progressive and final rehabilitation should be described. A preferred rehabilitation strategy should be developed with a view to minimising the amount of land disturbed at any one time. The final topography of any excavations, waste areas and dam sites should be shown on maps at a suitable scale.	Y	25.4.6	25.4.6
The strategies and methods presented for progressive and final rehabilitation of disturbed areas should demonstrate compliance with the objectives of the *Environmental management policy for mining in Queensland* (1991) or with updated versions of that policy available at the time of drafting the EIS. Land suitability assessment should follow the *Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland* (1995). In particular, the strategies and methods should have the following objectives:	Y	25.4	25.4
• mining and rehabilitation should aim to create a landform with land use capability and/or suitability similar to that prior to disturbance unless other beneficial land uses are pre-determined and agreed			
• mine wastes and disturbed land should be rehabilitated to a condition that is self-sustaining, or to a condition where the maintenance requirements are consistent with an agreed post-mining land use			
• surface and ground waters that leave the lease should not be degraded to a significant extent. Current and future water quality should be maintained at levels that are acceptable for users downstream of the site.			
The means of decommissioning the project, in terms of the removal of plant, equipment, structures and buildings should be described, and the methods proposed for the stabilisation of the affected areas should be given. Information should be provided regarding decommissioning and rehabilitation of the plant site, removal of processing plant, rehabilitation of concrete footings and foundations, hardstand areas, storage tanks and wharfage (including any potential for reuse of these facilities). Options and methods for the disposal of wastes from the demolition of plant and buildings should be discussed in sufficient detail for their feasibility and suitability to be established.	Y	25.5	
Proposals to divert creeks during operations, and, if applicable, for the reinstatement of the creeks after operations have ceased, should be provided. Where dams are to be constructed, proposals for the management of these structures after the completion of the project should be given. Also, the final drainage and seepage control systems and long-term monitoring plans should be described.	Y	25.4.6, 11.2.5, 11.5.3, 11.5.4, 11.6.1, 11.6.3	25.4.6, Chapter 11
A description of topsoil management should consider transport, storage and replacement of topsoil to disturbed areas. The minimisation of topsoil storage times (to reduce fertility degradation) should also be addressed.	Y	9.6.3	
Detail of the impacts of the preferred rehabilitation strategy should be discussed in the appropriate subsections of section 3 'Environmental values and management of impacts' particularly with regard to such issues as final landform stability, rehabilitation of flora and the long-term quality of water in any final voids. Implications for the long-term use and fate of the site should also be addressed, particularly with regard to the on-site disposal of waste and the site's inclusion on the environmental management register or contaminated land register.	Y	9.3.5, 9.6.5, 9.6.6	9.5, 9.6
2.6 Associated infrastructure requirements			
This section should provide descriptions, with concept and layout plans, of requirements for constructing, upgrading or relocating all infrastructure in the vicinity of the project area. The matters to be considered include such infrastructure as roads, bridges, dams, power lines and other cables, wireless technology (e.g. microwave telecommunications), and pipelines for any services (whether underground or above).	Y	6.6.2, 6.6.4, 6.6.8, 6.6.9	
2.6.1 Workforce and accommodation			
This section should provide details on the employment requirements and skills base the required workforce for both the construction and operations phases of the project and any other facilities.	Y	5.7.1, 5.7.2, 6.6.1	
The section should also discuss an accommodation strategy for the construction workforce that addresses the estimated housing needs of both single and accompanied construction workers. This section should include details of the size, location and management of any temporary worker accommodation that will be required either on-site or off-site. Maps should be included as necessary to illustrate the site and should include the location of any proposed workers' accommodation on-site or in the vicinity of the project.	Y	5.7.1, 5.7.2, 6.6.1	
This section should outline the need for, and location of, a site office during the construction phase that will act as a logistics base, materials/vehicle storage depot and workshop area, and highlight the need for power, water and sewerage at the site office. Information in relation to the site office and any construction facility should include:	Y	6.6.3, 6.6.5	
• food preparation and storage	Y	6.6.1	
• ablution facilities	Y	6.6.1	
• vector and vermin control	Y	6.8.1	
• fire safety	Y	6.6.5	
• indoor air quality	Y	6.6.5	
• waste management (storage, handling, transport, disposal/treatment)	Y	6.7.1	
• dust and noise control in relation to proximity of accommodation facilities to the construction area.	Y	Chapter 13, Chapter 15	
Outline local government approvals required for establishment and operation of such accommodation facilities.	Y	3.5	

2.6.2 Transport—road/rail/ship/air			
Describe arrangements for the transport of plant, equipment, products, wastes and personnel during both the construction phase and operational phases of the project. The description should address the use of existing local and regional facilities and all requirements for the construction, upgrading or relocation of any transport related infrastructure (e.g. main and local roads, local airstrips, etc.).	Y	12.6, 6.6.2, 6.6.4	
Full details of transport volumes, modes and routes along with the assessment of transport impacts on existing infrastructure and impact mitigation strategies should be provided in accordance with section 3.8.	Y	Chapter 12	
2.6.3 Water supply and storage			
The EIS should provide information on water usage by the project, including the quality and quantity of all water supplied to the site. In particular, the proposed and optional sources of water supply should be described (e.g. bores, any surface storages such as the Glebe Weir, municipal water supply pipelines, coal seam gas water). If infrastructure is required for the purpose of supplying water to the project, for example, pipelines from water supplies to the project or the raising of Glebe Weir, then the impacts of such infrastructure are to be assessed as part of the project and discussed for each of the relevant 'Environmental values and management of impacts' subsections outlined in section 3 of these TOR.	Y	6.6.10, Chapter 11	
If saline water is to be stored on site (e.g. coal seam gas water), details should be provided as to how these storages will be constructed, monitored and managed. This information should be referenced to section 3.4 of these TOR.	Y	11.2.3	Chapter 11
Estimated rates of supply from each source (average and maximum rates) should be given. Any proposed water conservation and management measures should be described.	Y	Chapter 11	
Determination of potable water demand should be made for the project, including the temporary demands during the construction period. Details should be provided of any existing town water supply to meet such requirements. If water storage and treatment is proposed on site, for use by the site workforce, then this should be described.	Y	Chapter 11	11.4
2.6.4 Waste management			
The EIS should outline the waste management requirements during the construction, operational and decommissioning stages of the project. This outline should include waste stream descriptions (including physical and chemical characteristics), expected generation rates, proposed handling, storage, treatment and disposal methods. This outline should also identify the waste avoidance, reuse, recycling, treatment and disposal efforts proposed.	Y	18.4, 18.5	18.4, 18.5, 18.7
2.6.5 Stormwater drainage			
A description should be provided of the proposed stormwater drainage system and the proposed disposal and/or re-use arrangements, including any off-site services and downstream impacts, both for construction and operational purposes.	Y	11.2.3, 11.4.5	Chapter 11
2.6.6 Sewerage			
This section should describe, in general terms, the sewerage infrastructure required by the project. If it is intended that industrial effluent or relatively large amounts of domestic effluent are to be discharged into an existing sewerage system, an assessment of the capacity of the existing system to accept the effluent should be provided. For industrial effluent, this should include detail of the physical and chemical characteristics of the effluent(s).	Y	6.6.5, 11.4.2	
2.6.7 Energy			
The EIS should describe all energy requirements, including electricity, natural gas, and/or solid and liquid fuel requirements for the construction and operation of the proposal. The locations of any easements should be shown on the infrastructure plan. Energy conservation should be briefly described in the context of any federal, state and local government policies.	Y	6.6.5, 6.6.9	
2.6.8 Telecommunications			
The EIS should describe the telecommunications proposed for the project and any impacts on existing telecommunications infrastructure (such as optical cables, microwave towers, etc.) and identify the owners of that infrastructure.	Y	5.3.3, 6.6.5, 6.6.8	
3 Environmental values and management of impacts			
The purpose of this section is to:			
• describe the existing environmental values of the area which may be affected by the proposal. Environmental values are defined in section 9 of the EP Act, environmental protection policies and other documents such as the Australian and New Zealand Environment and Conservation Council (ANZECC) 2000 guidelines. Environmental values may also be derived following recognised procedures, such as described in the ANZECC 2000 guidelines. Environmental values should be described by reference to background information and studies, which should be included as appendices to the EIS			
• describe the potential adverse and beneficial impacts of the proposal on the identified environmental values. Any likely environmental harm on the environmental values should be described			
• describe any cumulative impacts on environmental values caused by the proposal, either in isolation or by combination with other known existing or planned sources of contamination			
• present environmental protection objectives and the standards and measurable indicators to be achieved			
• examine viable alternative strategies for managing impacts. These alternatives should be presented and compared in view of the stated objectives and standards to be achieved. Available techniques, including best practice, to control and manage impacts to the nominated objectives should be discussed			
This section should detail the environmental protection measures incorporated in the planning, construction, operations, decommissioning, rehabilitation and associated works for the project. Measures should prevent, or where prevention is not possible, minimise environmental harm and maximise socio-economic and environmental benefits of the proposal. Preferred measures should be identified and described in more detail than other alternatives.			
Environmental protection objectives may be derived from legislative and planning requirements which apply to the proposal including Commonwealth strategies, state planning policies, local authority strategic plans, environmental protection policies under the EP Act, and any catchment management plans prepared by local water boards or land care groups. Special attention should be given to those mitigation strategies designed to protect the values of any sensitive areas and any identified ecosystems of high conservation value within the area of possible proposal impact.			
This section should address all elements of the environment, such as land, water, air, noise, nature conservation, cultural heritage, social and community, economy, waste, health and safety, hazards and risk, in a way that is comprehensive and clear. To achieve this, the following issues should be considered for each environmental value relevant to the project.			
• **Environmental values affected** — describe the existing environmental values of the area to be affected including values and areas that may be affected by any cumulative impacts (refer to any background studies in appendices—note such studies may be required over several seasons). It should be explained how the environmental values were derived (e.g. by citing published documents or by following a recognised procedure to derive the values).			
• **Impact on environmental values** — describe quantitatively and/or qualitatively the likely impact of the proposal on the identified environmental values of the area. The cumulative impacts of the proposal must be considered over time or in combination with other (all) impacts in the dimensions of scale, intensity, duration or frequency of the impacts. In particular, any requirements and recommendations of the relevant state planning policies, environmental protection policies, national environmental protection measures and integrated catchment management plans should be addressed.			
Cumulative impacts on the environmental values of land, air and water and cumulative impacts on public health and the health of terrestrial, aquatic and marine ecosystems must be discussed in the relevant sections. This assessment may include air and water sheds affected by the proposal and other proposals competing for use of the local air and water sheds.			
Where impacts from the proposal will not be felt in isolation to other sources of impact, it is recommended that the proponent develop consultative arrangements with other industries in the proposal's area to undertake cooperative monitoring and/or management of environmental parameters. Such arrangements should be described in the EIS.			
• **Environmental protection objectives** — describe qualitatively and quantitatively the proposed objectives for enhancing or protecting each environmental value. Include proposed indicators to be monitored to demonstrate the extent of achievement of the objective as well as the numerical standard that defines the achievement of the objective (this standard must be auditable). The measurable indicators and standards can be determined from legislation, support policies and government policies as well as the expected performance of control strategies. Objectives for progressive and final rehabilitation and management of contaminated land should be included.			
• **Control strategies to achieve the objectives** — describe the control principals, proposed actions and technologies to be implemented that are likely to achieve the environmental protection objectives; include designs and relevant performance specifications of plant. Details are required to show that the expected performance is achievable and realistic.			
• **Monitoring programs** — describe the monitoring parameters, monitoring points, frequency, data interpretation and reporting proposals.			
• **Auditing programs** — describe how progress towards achievement of the objectives will be measured, reported and whether external auditors will be employed. Include scope, methods and frequency of auditing proposed.			
• **Management strategies** — describe the strategies to be used to ensure the environmental protection objectives are achieved and control strategies implemented e.g. continuous improvement framework including details of corrective action options, reporting (including any public reporting), monitoring, staff training, management responsibility pathway, and any environmental management systems and how they are relevant to each element of the environment.			
• **Information quality** — information given under each element should also state the sources of the information, how recent the information is, how any background studies were undertaken (e.g. intensity of field work sampling), how the reliability of the information was tested, and what uncertainties (if any) are in the information.			

It is recommended that the final TOR and the EIS reasonably reflect the heading structure shown below. The mitigation measures, monitoring programs, etc., identified in this section of the EIS should be used to develop the EMP for the project (see section 4).			
3.1 Climate and natural disasters			
This section should describe the rainfall patterns (including magnitude and seasonal variability of rainfall), air temperatures, humidity, wind (direction and speed) and any other special factors (e.g. temperature inversions) that may affect management of the project.	Y	7.3, 7.4, 7.5, 7.6	
Historic weather patterns in the project area and seasonal conditions (e.g. cyclones, thunderstorms, floods and storms) that may influence timing and/or construction methods should be discussed, including how this would be managed. Extremes of climate (e.g. droughts, floods, etc) should be discussed with particular reference to water management at the project site.	Y	7.3, 7.4, 7.5, 7.6	
The potential impacts due to climatic factors should be addressed in the relevant sections of the EIS. The impacts of rainfall on soil erosion should be addressed in section 3.2. The impacts of storm events on the capacity of waste containment systems (e.g. site bunding / stormwater management and tailings dams) should be addressed in section 3.7 with regard to contamination of waterways and in section 3.4 with regard to the design of the waste containment systems. The impacts of winds, rain, humidity and temperature inversions on air quality should be addressed in section 3.5.	Y	7.8	
The implications of climate change on the project's environmental and commercial feasibility should be assessed in detail.	Y	14.9.3	
Impacts of climate change risks and adaptation measures should include the following:			
• analyse risks to the project from climate change impacts (i.e. increased risk and severity of flood; increased vulnerability to more intense bushfires	Y	14.9.3	
• identify adaptation measures to minimise risk to the project from climate change impacts, particularly where there may be a significant impact to human safety or property.	Y		
The vulnerability of the area to natural or induced hazards, such as bushfires and earthquakes should be addressed. The relative frequency and magnitude of these events should be considered together with the risk they pose to the construction and operation of the project. Hazard and risk assessment and management should be provided in section 3.14.	Y	7.7, 23.8	
3.2 Land			
This section describes the existing environment values of the land area that may be affected by the project. It should also define and describe the objectives and practical measures for protecting or enhancing land-based environmental values, describe how nominated quantitative standards and indicators may be achieved, and how the achievement of the objectives will be monitored, audited and managed.			
3.2.1 Topography and geomorphology			
3.2.1.1 Description of environmental values			
Maps should be provided locating the project in both regional and local contexts. The topography of the project site should be detailed with contours at suitable increments, shown with respect to Australian Height Datum. Commentary on the maps should be provided highlighting the significant topographical features.	Y	Figure 9-3-V1.3, 9.3.1 & 9.3.3	
The environmental values of the cultural landscapes of the affected area, in terms of the physical and cultural integrity of the area, should be described.	Y	20B.1.2	
3.2.1.2 Potential impacts and mitigation measures			
The potential impacts of the landscape character of the project site and the surrounding area should be described. Particular mention should be made of any changes to the broad-scale topography and vegetation character of the area, such as due to spoil dumps, excavated voids and broad-scale clearing.	Y	9.5.1	
Details should be provided of measures to be undertaken to mitigate or avoid the identified impacts.	Y	9.6.1	
3.2.2 Geology			
3.2.2.1 Description of environmental values			
The EIS should provide a description, map and a series of cross-sections of the geology of the mine site, with particular reference to the physical and chemical properties of surface and sub-surface materials and geological structures within the proposed areas of disturbance. The general suitability of the mine site overburden material for road building (or other productive use) should be discussed briefly.	Y	Figure 9-4-V1.3; 9.3.2, 9.3.5; Figure 9-5	
Geological properties of all project sites which may influence stability, occupational health and safety, rehabilitation programs, or the quality of waste water leaving any area disturbed by the project should be described.	Y	9.5.3	
Investigations into the physical, geo-mechanical and chemical properties of waste rock in both fresh and weathered forms needs to be determined for slope stability, rehabilitation and possible acid generation for waste rock dump design.	Y	9.3.5	
This section should also consider the geology underlying the proposed infrastructure corridors for coal transport, electricity easements, pipeline easements and other off-mine infrastructure. Of particular interest are any other possible coal, petroleum, gas or other mineral resources that may be impacted or sterilised by the infrastructure.	Y	9.5.2, 9.3.4	
The EIS should provide a summary of the results of studies and surveys undertaken to identify and delineate the coal and mineral resources within the project area (including any areas underlying related infrastructure).	Y	9.3.2	
The location, tonnage and quality of the coal resources within the project area should be described in detail and, where possible, should be presented on a 'seam by seam' basis and include the modifying factors and assumptions made in arriving at the estimates. The resources should be estimated and reported in accordance with the Australasian code for reporting of mineral resources and ore reserves (the JORC Code available at www.jorc.org/main.php) and the principles outlined in the *Australian guidelines for the estimating and reporting of inventory coal, coal resources and coal reserves* (available at www.jorc.org/pdf/coalguidelines.pdf) as appropriate.	Y	9.3.4	
3.2.2.2 Potential impacts and mitigation measures			
The EIS should analyse the effectiveness of the mining proposal in achieving the optimum utilisation of the coal resources within the project area and consider its impacts on other resources. It should demonstrate that the mining proposal will 'best develop' the coal resources, minimise resource wastage and avoid any unnecessary sterilisation or loss of these or any other of the state's coal, mineral, and petroleum (including gas and coal seam methane) resources that may be impacted upon or sterilised by the mining activities or related infrastructure.	Y	9.3.4	6.4.4
If geological conditions are conducive, the proponent should consider the possibility that significant fossil specimens (such as of dinosaurs or their tracks) may be uncovered during construction/operations and propose strategies for protecting the specimens and alerting the Queensland Museum to the find.	Y	9.3.5, 9.6.2	
3.2.3 Soils			
3.2.3.1 Description of environmental values			
A soil survey of the sites affected by the project should be conducted at a suitable scale, with particular reference to the physical and chemical properties of the materials that will influence erosion potential, storm water run-off quality, rehabilitation and agricultural productivity of the land. Information should also be provided on soil stability, suitability for construction of proposed facilities and any approved soil conservation plans.	Y	9.3.6, 9.6.4, 9.6.3	
Soil profiles should be mapped at a suitable scale and described according to the *Australian soil and land survey field handbook* (McDonald et al, 1990) and *Australian soil classification* (Isbell, 1996). An appraisal of the depth and quality of useable soil should be undertaken. Information should be presented according to the standards required in the *Planning guidelines: the identification of Good Quality Agricultural Land* (DPI & DHLGP, 1993), and the State Planning Policy 1/92: Development and the Conservation of Agricultural Land (DME, 1995).	Y	9.3.7, 9.2.3, 9.2.4, 9.3.6	9.3.7
The requirement for soils mapping in terms of area and mapping scale should follow the *Queensland Department of Mines and Energy: Technical Guidelines for Environmental Management of Exploration and Mining in Queensland* (1995). These guidelines recommend that disturbed areas be mapped more intensively than non-disturbed areas and provide guidance on acceptable mapping scale and site intensity.	Y	9.2.4, 9.2.3	9.2
3.2.3.2 Potential impacts and mitigation measures			
Possible erosion rates and management techniques should be described for all permanent and temporary landforms. The erosion potential (wind and water) and erosion management techniques should be outlined for each soil type identified. An erosion-monitoring program, including rehabilitation measures for erosion problems identified during monitoring, should also be outlined. Mitigation strategies should be developed to achieve acceptable soil loss rates, levels of sediment in rainfall runoff and wind-generated dust concentrations.	Y	9.5.4, 9.6.3, 11.6.1	
The EIS should include an assessment of likely erosion effects for all disturbed areas such as:	Y	9.5.4, 9.6.3	
• areas cleared of vegetation	Y		
• waste dumps	Y		
• stockpiles	Y		
• dams, banks and creek crossings	Y		
• the plant site, including buildings	Y		
• access roads or other transport corridors	Y		
• areas under rehabilitation.	Y	9.6.7	
Methods proposed to prevent or control erosion should be specified and should be developed with regard to preventing soil loss in order to maintain land capability / suitability, and preventing significant degradation of local waterways by suspended solids.	Y	9.6.3	
Consideration should be given to the amendment or revocation of any approved soil conservation plans as a result of project activities.	Y	9.6.3	

3.2.4 Land use			
3.2.4.1 Description of environmental values			
The EIS should provide a description of current land tenures, current land uses and identify the areas covered by Native Title claims in all project areas, with particular mention of land with special purposes.	Y	8.3, 8.3.1, 8.3.2, 8.3.3	
The location and owner/custodians of all tenures, reserves, roads and road reserves, railways and rail reserves, stock routes and the like, covering the affected land should be shown on maps of a suitable scale. Indicate locations of gas and water pipelines, power lines and any other easements. The environmental values affected by this infrastructure should be described.	Y	8.3, Figures 8-2-V1.3, 8-3-V1.3, 8-4-V1.3	
A map at a suitable scale showing existing land uses and tenures, and the proposed mine and coal handling locations, should be provided for the entire project area and surrounding land that could be affected by the development. This map should identify areas of conservation value in this zone. The location of existing dwellings and the zoning of all affected lands according to any existing town or strategic plan should be included.	Y	8.3.1, Figures 8-2-V1.3, 8-3-V1.3, 8-4-V1.3	
The land use suitability of the affected area in terms of the physical and economic attributes should be described. The assessment should set out soil and landform subclasses assigned to soil mapping units in order to derive land suitability classes. The limitations and land suitability classification system to use is that in Attachment 2 of *Land Suitability Assessment Techniques in the Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland* (1995).	Y	8.3.3, 9.3.7, 9.5.6	9.2.5, 9.3.7, 9.3.9, 9.5.6, 9.5.7, 9.6, 9.7
A land suitability map of the proposed and adjacent area should be provided, setting out land suitability and current land uses, e.g. for grazing of native and improved pastures and horticulture. Land classified as good quality agricultural land in the Department of Natural Resources' land classification system should be shown in accordance with the planning guideline, The Identification of Good Quality Agricultural Land, which supports State Planning Policy 1/92.	Y	8.3.5, 9.3.7, 9.5.6	9.2.5, 9.3.7, 9.3.9, 9.5.6, 9.5.7, 9.6, 9.7
3.2.4.2 Potential impacts and mitigation measures			
The potential for the construction and operation of the project to change existing and potential land uses of the project site and adjacent areas should be detailed. Consideration should be given to impacts arising from property disruption and severance, construction and maintenance. Post operations land use options should be detailed including suitability of the area to be used for agriculture, industry, or nature conservation. The factors favouring or limiting the establishment of those options should be given in the context of land use suitability prior to the project and minimising potential liabilities for long-term management.	Y	8.5 & 8.6	Chapter 9 and Chapter 22
The potential environmental harm caused by the project on the adjacent areas currently used for agriculture, urban development, recreation, tourism or other business and the implications of the project for future developments in the impact area including constraints on surrounding land uses should be described. If the development adjoins or potentially impacts on good quality agricultural land, then an assessment of the potential for land use conflict is required. Investigations should follow the procedures set out in the planning guideline, The Identification of Good Quality Agricultural Land, which supports State Planning Policy 1/92.	Y	9.5.6	Chapter 9 and Chapter 22
Incompatible land uses, whether existing or potential, adjacent to all aspects of the project, including essential and proposed ancillary developments or activities and areas directly or indirectly affected by the construction and operation of these activities should be identified and measures to avoid unacceptable impacts defined.	Y	9.6.5, 25.4.6	
3.2.5 Landscape character and visual amenity			
3.2.5.1 Description of environmental values			
This section should describe in general terms the existing character of the landscape that will be affected by the project. It should comment on any changes that have already been made to the natural landscape since European settlement. It should describe the general impression of the landscape that would be obtained while travelling through and around it.	Y	19.3	
This section should also describe existing landscape features, panoramas and views that have, or could be expected to have, value to the community whether of local, regional, state-wide, national or international significance. Information in the form of maps, sections, elevations and photographs should be used, particularly where addressing the following issues:	Y	19.3.3, 19.3.2	
• identification of elements within the proposal and surrounding area that contribute to their image of the town/city as discussed in the any local government strategic plan---city image and townscape objectives and associated maps	Y	19.2	
• major views, view sheds, existing viewing outlooks, ridgelines and other features contributing to the amenity of the area	Y	19.3.3	
• focal points, landmarks (built form or topography), gateways associated with project site and immediate surrounding areas, waterways, and other features contributing to the visual quality of the area and the project site	Y	19.3.3	
• character of the local and surrounding areas including character of built form (scale, form, materials and colours) and vegetation (natural and cultural vegetation) directional signage and land use	Y	19.3.3	
• identification of the areas of the proposal that have the capacity to absorb land use changes without detriment to the existing visual quality and landscape character	Y	19.4, 19.4.1	
• the value of existing vegetation as a visual screen.	Y	19.3.3, 19.5.2	
3.2.5.2 Potential impacts and mitigation measures			
The potential impacts of the project landscape character of the site and the surrounding area should be described. Particular mention should be made of any changes to the broad-scale topography and vegetation character of the area, such as due to spoil dumps, excavated voids and broad-scale clearing. Details should be provided of measures to be undertaken to mitigate or avoid the identified impacts.	Y	19.5.1, impacts; 19.6.2, mitigation	
This section should analyse and discuss the visual impact of the project on particular panoramas and outlooks. It should be written in terms of the extent and significance of the changed skyline as viewed from places of residence, work, and recreation, from road, cycle and walkways and other known vantage points day and night, during all stages of the project as it relates to the surrounding landscape. The assessment is to address the visual impacts of the project structures and associated infrastructure, using appropriate simulation. Sketches, diagrams, computer imaging and photos are to be used where possible to portray the near views and far views of the completed structures and their surroundings from visually sensitive locations.	Y	19.5.1, 19.5.2, 19.5.3, 19.5.4	
Special consideration is to be given to public roads, public thoroughfares, and places of residence or work, which are within the line-of-sight of the project.	Y	18.5.2	
Details of the design and colour of any major structures, buildings or fixed plant and all proposed screenings either vegetative or material should be described and discussed where relevant to the minimisation of the visual impacts of the project. Consideration should be given to a landscaped screen / buffer between the mine site and the town of Wandoan to mitigate any negative visual impacts. Where plantings for screening or landscaping are proposed, details should be provided of the species that will be used, and their likely provenance. Preference should be given to species native to the area.	Y	19.4.3, 19.4.2, 19.4.1, 19.6.3	
The obstruction of sunlight due to the construction of buildings or alteration of landforms should be considered, as well as major illumination or reflection impacts on adjacent properties or roads.	Y	19.4.1, 19.4.2, 19.5	
Detail should be provided of all management options to be implemented and how these will mitigate or avoid the identified impacts.	Y	19.6.2	
Management of the lighting of the project, during all stages, is to be provided, with particular reference to objectives to be achieved and management methods to be implemented to mitigate or avoid:	Y	19.6.3	
• the visual impact at night	Y	19.5	
• night operations/maintenance and effects of lighting on fauna and residents	Y	17A.4.4, 19.5	
• the potential impact of increased vehicular traffic	Y	19.5.1	
• changed habitat conditions for nocturnal fauna and associated impacts.	Y	17A.4.4	
3.2.6 Land contamination			
3.2.6.1 Description of environmental values			
This section should discuss the potential for land contamination within the project area from existing and past uses, based on known land use history and the nature and concentrations of any contaminants. The review should identify land within the proposed mine, associated infrastructure corridors and any other areas affected by the proposed works, which has been used, or is being used, for a Notifiable Activity as listed in Schedule 2 of the EP Act, or is potentially contaminated, or is on the environmental management register or contaminated land register.	Y	8.3.4	
The EIS should include a preliminary site investigation for all properties that have been impacted by existing and past land uses that could have resulted in land contamination.	Y	8.3.4	
3.2.6.2 Potential impacts and mitigation measures			
The EIS should discuss the management of any contaminated land and potential for contamination from construction, commissioning and operation, in accordance with EPA's Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland (1998) and the *National Environment Protection (Assessment of Site Contamination) Measure 1999*.	Y	9.3.2, 9.5.2; 8.5.4 8.6.4	
The EIS should also describe the possible contamination of land from aspects of the project, including waste, saline water from coal seam gas extraction used for dust suppression, reject coal, overburden, coal washing plant and spills at chemical and fuel storage and handling areas.	Y	8.5.4	
This section should describe strategies and methods to be used to prevent and manage any land contamination resulting from the project, including the management of any acid generation or saline impacts from the mining activities and the management of chemicals and fuels to prevent spills or leaks.	Y	8.6.4	
3.2.7 Land disturbance			
3.2.7.1 Potential impacts and mitigation measures			

The EIS should contain strategies aimed at minimising the amount of land disturbed at any one time. The strategic approach to progressive rehabilitation and final decommissioning should be described. The consistency of the approach with relevant guidelines and the results of recent research should be described.	Y	25.4.6	25.4.6
Management of all dams, roads, rail, electricity and other infrastructure during construction operation and decommissioning phases should be described in detail.	Y	Chapter 5, Chapter 6	
The methods to be used for the project, including backfilling, covering, re-contouring, topsoil handling and revegetation, should be described. Consideration should be given to the use of threatened plant species during any landscaping and revegetation.	Y	6.4.3, 9.5.3	
Proposals should be provided to divert creeks during construction or operations, and, if applicable, for the reinstatement of the creeks. Where dams and roads and other infrastructure are to be constructed, proposals for the management of these structures after the completion of the project should be given. A contour map of the area should be provided (if relevant). Also, the final drainage and seepage control systems and any long-term monitoring plans should be described.	Y	25.4.6	Chapter 11
Proposed decommissioning of project operations should be described in detail, including consolidation, revegetation, fencing, and monitoring. Discussion of any decommissioning works should address rehabilitation of concrete footings and foundations, hard stand areas and storage tanks (including any potential for reuse of these facilities).	Y	25.5	
A description of topsoil management should consider transport, storage and replacement of topsoil to disturbed areas. The topsoil management should also outline how soil from good quality agricultural land will be best utilised. The minimisation of topsoil storage times (to reduce fertility degradation) should also be addressed. Erosion and sediment control measures should be described, particularly in relation to the management of sodic and saline overburden material.	Y	9.5.3, 9.6.3	
3.3 Nature conservation			
This section describes the existing environment values for nature conservation that may be affected by the project. Describe the environmental values of nature conservation for the affected area in terms of:	Y	Chapter 17A	Chapter 17A and Chapter 17B
• integrity of ecological processes, including habitats of rare and threatened species and ecological communities		all Chapter 17A; 17B.2.1	
• conservation of resources		all Chapter 17A	
• biological diversity, including habitats of rare and threatened species		all Chapter 17A; 17B.2.1	
• integrity of landscapes and places including wilderness and similar natural places		all Chapter 17A	
• aquatic and terrestrial ecosystems.		all Chapters 17A and 17B	
A discussion should be presented on the nature conservation values occurring in the areas likely to be affected by the project, both directly and indirectly.		all Chapters 17A and 17B	
The flora and fauna communities which are rare or threatened, environmentally sensitive localities including waterways (permanent, semi-permanent and ephemeral), riparian zone, wilderness and habitat corridors should be described.		all Chapters 17A and 17B	
The description should include a plant species list, a vegetation map at appropriate scale and an assessment of the significance of native vegetation, from local, regional, state and national perspectives.		all Chapter 17A	
The description should indicate any areas of state or regional significance identified in an approved biodiversity planning assessment produced by the EPA including matters of NES identified within the EPBC Act.		all Chapter 17A	
3.3.1 Sensitive environmental areas			
3.3.1.1 Description of environmental values			
The EIS should identify areas that are environmentally sensitive in proximity to the project. Environmentally sensitive areas should also include areas classified as having national, state, regional or local biodiversity significance, or flagged as important for their integrated biodiversity values. Consideration should be given to nature refuges, national parks, conservation parks, declared fish habitat areas, wilderness areas, aquatic reserves, heritage/historic areas or items relating to biodiversity, national estates, world heritage listings and sites covered by international treaties or agreements (e.g. Ramsar, Japan-Australia Migratory Bird Agreement, China-Australia Migratory Bird Agreement, Republic of Korean-Australia Migratory Bird Agreement), areas of cultural significance relating to biodiversity and scientific reserves.	Y	17A.3,17B.2.1	
The proximity of the project to any environmentally sensitive areas should be shown on a map of suitable scale. Areas that would be regarded as sensitive with regard to flora and fauna have one or more of the following features:	Y	17A.3	
• important habitats of species listed under the Nature Conservation Act 1992 and/or the EPBC Act as presumed extinct, critically endangered, endangered, vulnerable or rare	Y	17A.3, 17B.5.10	
• regional ecosystems recognised by the EPA as 'endangered' or 'of concern' or 'not of concern' but where permits are no longer granted due to being at threshold levels, and/or ecosystems listed as 'presumed extinct', 'critically endangered' 'endangered' or 'vulnerable' under the EPBC Act	Y	17A.3	
• ecosystems that provide important ecological functions, such as riparian vegetation, important buffer to a protected area, refugia or important habitat corridor between areas	Y	17A.3	
• protected areas which have been proclaimed under the *Nature Conservation Act 1992* or are under consideration for proclamation.	Y	17A.3	
3.3.1.2 Potential impacts and mitigation measures			
This section should discuss the following:			
• the impact of the project on species, communities and habitats of local, regional or national significance	Y	17A.4, 17B.5	
• proposals to mitigate impacts (e.g. timing of works, minimise width of disturbance, proposed rehabilitation of in-stream and floodplain disturbances)	Y	17B.6	
• planned rehabilitation of vegetation communities and any relevant previous experience/experiments rehabilitating these communities	Y	17A.5.2	
• appropriate mitigation measures for remnant ecosystems that may be affected by the project should refer to the Regional Vegetation Management Code: Brigalow Belt and New England Tablelands (20 November 2006), and address the Policy for Vegetation Management Offsets (DNRW 2007)		17A.5	17A.5
• offsets relating to residual impacts with regard to the Queensland Government Environmental Offsets Policy, the Policy for Vegetation Management Offsets as well as the draft policy statement on the use of environmental offsets under the EPBC Act.	Y	17A.6	17A.6
Potential impacts and associated mitigation measures should be discussed further under section 3.3.4 Aquatic biology, and section 3.4 Water resources.	Y	17B.5, 17B.6	
3.3.2 Terrestrial flora			
3.3.2.1 Description of environmental values			
The terrestrial vegetation communities within the affected areas should be described at an appropriate scale with mapping produced from aerial photographs and ground truthing, showing the following:	Y	17A.3.3	
• location and extent of vegetation types including recognised regional ecosystem type descriptions and any areas of national, state or regional significance	Y	17A.3.3	
• location of vegetation types of conservation significance	Y	17A.3.3, 17A.4.3	
• vegetation map unit descriptions, including their relationship to regional ecosystems. Sensitive or important vegetation types should be highlighted and their value as habitat for fauna and conservation of specific rare floral and faunal assemblages or community types discussed	Y	17A.3.3, 17A.4.3	
• the current extent (bioregional and catchment) of protected vegetation types of conservation significance within the protected areas (e.g. national parks, conservation parks, resource reserves, nature refuges)	Y	17A.3.3, 17A.4.3	
• any plant communities of cultural, commercial or recreational significance			
• the distribution and abundance of significant exotic and weed species.	Y	17A.3.4	
The description should contain a review of published information regarding the assessment of the significance of the vegetation to conservation, recreation, scientific, educational and historical interests. The assessment should also include a description of vegetation (including re-growth and restored areas in addition to remnant vegetation) to indicate any areas of state, regional or local significance identified in the Brigalow Belt Biodiversity Planning Assessment version 1.3 produced by the EPA.	Y	17A.3	
For each significant natural vegetation community likely to be impacted by the project, vegetation surveys should be undertaken at an appropriate number of sites, allowing for seasonal factors, as follows:	Y	17A.3.4	
• all data requirements of the Queensland Herbarium CORVEG database should be collected	Y	17A.3.4	
• appropriate minimum site sizes should be selected, observing recognised sampling approaches and to provide an adequate sample of surveyed communities	Y	17A.3.4	
• a list of species present at each site should be recorded	Y	17A.3.4	
• the relative abundance and community structure of plant species present should be recorded	Y	17A.3.4	
• any plant species of conservation, cultural, commercial or recreational significance should be identified	Y	17A.3.4	
• vegetation mapping and data should be submitted to the Queensland Herbarium to assist the updating of the CORVEG database	Y	17A.3.4	
• specimens of species listed as protected plants under the *Nature Conservation (Wildlife) Regulation 1994,* other than common species, are to be submitted to the Queensland Herbarium for identification and entry into the HERBRECS database.	Y	17A.3.4	
The existence of rare or threatened species should be specifically addressed under sensitive areas. Any special landscape values of natural vegetation communities should be described.	Y	17A.3.4	
Existing information on plant species may be used instead of new survey work provided that the data are derived from surveys consistent with the above methodology and describe existing conditions. Methodology used for flora surveys should be specified in the appendices to the report. Any existing information should be revised and comments provided on whether the areas are degraded, cleared or affected in ways that would affect their environmental value.	Y	17A.3.4	

The occurrence of pest plants (weeds), particularly declared plants under the *Land Protection (Pest and Stock Route Management) Act 2002* should be shown on a map at an appropriate scale. A weed management strategy will be required.	Y	17A.3.4	
The location of any horticultural crops in the vicinity of the project area should be shown.	Y	Chapter 8	
3.3.2.2 Potential impacts and mitigation measures			
This section should discuss all foreseen direct and indirect effects on terrestrial flora and the potential level of environmental impact identified. Action plans for protecting rare or threatened species and vegetation types identified as having high conservation value should be described, and any obligations imposed by state or federal government biodiversity protection legislation or policy should be discussed.	Y	17A.4	17A.6
Construction and operation of the project involving clearing, salvaging or removal of vegetation should be described, and indirect impacts on vegetation not cleared should be discussed.	Y	17A.4	
Impacts during construction and operation of the project should be assessed.	Y	17A.4	
The number of hectares of remnant vegetation proposed to be cleared (by conservation status and regional ecosystem type) for the mine and each proposed infrastructure component should be identified.	Y	17A.4.1	17A.4.1
These figures should be discussed in terms of the long-term sustainability of these ecosystems to remain in the landscape at a regional level.	Y	17A.4.7	
Short- and long-term durations should be considered.	Y	17A.4.7	
Measures to mitigate the impacts of the project on vegetation types identified as having high conservation values, listed species and sensitive habitat or the inhibition of propagation should be described. This should also include the identification of potential offset areas, in an 'offset strategy' to compensate for any loss of vegetation.	Y	17A.5	17A.6
With regard to the project area, this section should include:			
• the significance of impacts at a local, catchment, bioregional, state or national levels	Y	17A.4.8	
• impact on any plants of potential or recognised environmental or economic significance	Y	17A.4	
• a discussion of the ability of identified stands of vegetation to withstand any increased pressure resulting from the project and identify measures proposed to mitigate impacts	Y	17A.4.7	
• a description of the methods to ensure rapid rehabilitation of disturbed areas following construction, including the species chosen for revegetation which should be consistent with the surrounding associations. Details of any post construction monitoring programs and what benchmarks would be used for review of monitoring should be included. Consideration should be given to the establishment of reference sites (at least two for each ecosystem type being rehabilitated) that could be established and monitored to provide benchmarking for rehabilitation activities	Y	17A.5.2	
• a draft weed management plan should be included in an EMP, to be developed and finalised in consultation with land protection officers (DPI&F) and local government environmental officers, to cover construction, rehabilitation and operation periods	Y	Chapter 27, Chapter 27A	17A.5.2
• a description of the potential for the introduction and/or spread of weeds (such as Parthenium, African Box Thorn and Mother of Millions) or plant disease, including:	Y	17A.4.5	17A.5.2
– identification of the origin of construction materials, machinery and equipment			
– vehicle inspection regime, which addresses the need for vehicle and machinery wash-down and any other hygiene protocols, including the requirement that all vehicles and equipment must be cleaned before starting the job and that these wash down areas contain water/ soil away from creeks and gullies			
– staff/operator education programs			
– determination of the potential for the introduction of or facilitation of exotic, non-indigenous and noxious plants.			
3.3.3 Terrestrial fauna			
3.3.3.1 Description of environmental values			
The terrestrial, and riparian fauna occurring in the areas affected by the project should be described, noting the broad distribution patterns in relation to vegetation, topography and substrate. Wildlife corridors and refugia should be identified and mapped.	Y	17A.3.5, 17A.3.6	
The description of the fauna present or likely to be present in the area should include:			
• species diversity (i.e. a species list) and indicative abundance of animals, including amphibians, birds, reptiles, mammals (including bats)	Y	17A.3.6	
• any species that are poorly known but suspected of being rare or potentially threatened	Y	17A.3.6	
• habitat requirements and sensitivity to changes; including movement corridors and barriers to movement	Y	17A.3.5, 17A.3.1	
• the existence of feral or exotic animals, including maps of major pest infestations	Y	17A.3.6	
• existence of any rare, threatened or otherwise noteworthy species/communities in the study area, including discussion of range, habitat, breeding, recruitment, feeding and movement requirements, and current level of protection (e.g. any requirements of protected area management plans)	Y	17A.3.6	
• use of the area by migratory and nomadic birds in particular areas for breeding or significant congregations.	Y	17A.3.6	
The EIS should contain results from surveys for species listed as threatened or migratory under the EPBC Act. Surveys are to be conducted at the appropriate time of the year when the species is known to be present on the site, so that identification and location of these species is optimal.	Y	17A.3.6	
Methodology used for fauna surveys should be specified in the appendices to the report. The EIS should indicate how well any affected significant communities and species are represented and protected elsewhere in the region where the site of the project occurs. Relevant site data should be provided to the EPA in a format compatible with EPA WildNet database for listed threatened species.	Y	17A.3.6	
3.3.3.2 Potential impacts and mitigation measures			
This section should discuss all foreseen direct and indirect effects on terrestrial fauna. Strategies for protecting rare or threatened species should be described, and any obligations imposed by state or federal government threatened species legislation or policy should be discussed.	Y	17A.4	
Any recovery plans for potentially affected threatened species should be outlined, and strategies for complying with the objectives and management practices of relevant recovery plans should be described.	Y	17A-4.8	
In particular, specific reference should be made to the recovery plan for the EPBC Act listed critically endangered Boggomoss Snail (Adclarkia dawsonensis).	NA	Refer Volume 4	
Impacts during construction and operation of the project should be assessed.	Y	17A.4	
Given the critically endangered status of the Boggomoss Snail, the risk of elimination of any local population must be carefully evaluated.	NA	Refer Volume 4	
If the evaluation indicates that translocation of such a population would be the only means of avoiding the loss, a translocation trial, under the supervision of the recovery team for the species, should be undertaken to determine the feasibility of translocation.	NA	Refer Volume 4	
In order to demonstrate that translocation had been successful, at least 70 per cent survival rate would need to be achieved. Short- and long-term durations should be considered.	NA	Refer Volume 4	
Measures to mitigate the impact on habitat or the inhibition of normal movement, breeding or feeding patterns, and change to food chains should be described.	NA	Refer Volume 4	
Any provision for buffer zones and movement corridors, or special provisions for migratory or nomadic animals should be discussed.	Y	17A.5.1	
With regard to terrestrial and riparian fauna, the assessment of potential impact should consider:	Y	17A.5.1	
• impacts the project may have on terrestrial fauna, relevant wildlife habitat and other fauna conservation values, including:	Y	17A.5.1	
– direct (short-term) and indirect (long-term) impacts due to loss of range/habitat, food supply, nest sites, breeding/recruiting potential or movement corridors			
– cumulative effects of direct and indirect impacts			
– impacts on rare and threatened or otherwise noteworthy animal species			
– threatening processes leading to progressive loss			
– identification of the conservation importance of identified populations at the regional, state and national levels.			
• measures to minimise wildlife capture and mortality during construction and operation	Y	17A.5.1	
• details of the methodologies that would be used to avoid injuries to livestock and native fauna as a result of the project's construction and operational works, and if accidental injuries should occur the methodologies to assess and handle injuries	Y	17A.5.1	
• methods for minimising the introduction of feral animals, and other exotic fauna such as declared pest ant species (fire ants and yellow crazy ants)	Y	17A.5.1	17A.5.2
• review of control measures to prevent increases in local populations and spread of biting insect species of pest and health significance associated with construction activities and disposal of construction wastes.	Y	17B.6.8	17B.6.8
These would also include, where relevant, matters of NES identified within the EPBC Act.	Y	17A.5.1	
3.3.4 Aquatic biology			
3.3.4.1 Description of environmental values			
The aquatic flora and fauna occurring in the areas affected by the project should be described, noting the patterns and distribution in the waterways. A description of the habitat requirements and the sensitivity of aquatic flora and fauna species to changes in flow regime, water levels and water quality in the project areas should be provided. The discussion of the aquatic fauna and flora present or likely to be present in the project area at any time during the year should include:	Y	17B.3	
The discussion of the fauna and flora present or likely to be present in the area should include:			
• fish species, mammals, reptiles, amphibians and aquatic invertebrates occurring in the waterways within the project area, including any feral and exotic fauna species	Y	17B.3.4, 17B.3.5, 17B.3.6, 17B.3.7	17B.3

• an assessment of the biological values of the waterways affected the project in general and in the context of the Dawson River Catchment, and how these waterways contribute to the fisheries productivity of the catchment as a whole	Y	17B.3	17B.3
• aquatic (waterway) macrophytes including native and exotic/weed species	Y	17B.3.3	17B.3
• wetlands listed by the EPA as areas of national, state or regional significance, and their values and importance	Y	17B.2.1, 17B.2.2	17B.3
• a description of terrestrial species that are ecologically associated with wetlands or waterways and are likely to be affected by the project	Y	17A.3.6	
• aquatic substrate and stream type.	Y	17B.3.1	17B.3
These would also include, where relevant, matters of NES identified within the EPBC Act.	Y	17B.2.1	
3.3.4.2 Potential impacts and mitigation measures			
This section should discuss all foreseen direct and indirect effects on aquatic flora and fauna, including strategies for protecting rare or threatened species and any obligations, legislation or policies imposed by the state and federal governments. The discussion should include:	Y	17B.5	
• measures to minimise wildlife injury and mortality during construction and operation	Y	17B.6.6	
• details of the methodologies that would be used to avoid injuries to livestock and native fauna as a result of the project's construction and operational works, and if accidental injuries should occur the methodologies to assess and handle injuries	Y	17B.6.6	
• details of measures to be used to maintain fish passage in creeks that will be affected	Y	17B.6.7	17B.6
• methods for minimising the introduction of feral animals, and other exotic fauna	Y	17B.6.10	17B.6.4
• review of control measures to prevent increases in local populations and spread of biting insect species of pest and health significance associated with construction activities and disposal of construction wastes	Y	17B.6.8	17B.6.8
• identification of necessary permits/authorities required by the project	Y	17B.2.1	17B.2.1
• description of mitigation measures to prevent the creation of new mosquito and biting midge breeding sites during construction (e.g. in quarries and borrow pits)	Y	17B.6.8	17B.6.8
• description of the potential for and mitigation measures to prevent the introduction, transfer or facilitation of exotic, non-indigenous and noxious plants and water borne insect pests.	Y	17B.5.4, 17B.6.4	17B.6.4
# 3.4 Water resources			
## 3.4.1 Description of environmental values			
This section describes the existing environment for water resources that may be affected by the project in the context of environmental values as defined in the Queensland water quality guidelines for region-specific parameter values, and such documents as the EP Act, Environmental Protection (Water) Policy 1997 (EPP (Water)) and ANZECC 2000. The definition of waters in the EPP(Water) includes the bed and banks of waters, so this section should address impacts on benthic sediments as well as the water column.	Y	11.3	11.3
Where a licence or permit will be required under the *Water Act 2000* to take or interfere with the flow of water, this section of the EIS should provide, where specific design information is available, sufficient information for a decision to be made on the application. Similarly, waterway barrier works may need approval under the *Fisheries Act 1994* , and if so should be addressed in the EIS.	Y	11.3, 11.4.5	11.2, 11.6
3.4.1.1 Surface water and watercourses			
A description should be given of the permanent, semi-permanent and significant ephemeral surface watercourses in the area affected by the project, including their quality and quantity and an outline of the significance of these waters to the river catchment system in which they occur.	Y	11.3.2	11.3
Details provided should include a description of existing surface drainage patterns, and flows in major streams and wetlands.	Y	11.3.3	
Also provide details of the likelihood of flooding, history of flooding including extent, levels and frequency, and a description of present and potential water uses downstream of the areas affected by the proposal. Flood studies should include a range of annual exceedance probabilities for affected waterways, where data permits.	Y	11.3.4	11.3.4, 11.5.3, 11.6.4
The EIS should provide a description, with photographic evidence where appropriate, of the geomorphic condition of any watercourses likely to be affected by disturbance or stream diversion.	Y	11.3.5	
The results of this description should form the basis for the planning and subsequent monitoring of rehabilitation of the watercourses during or after the operation of the proposal.	Y	11.6.1, 11.6.6	11.6
An assessment is required of existing water quality in surface waters and wetlands likely to be affected by the proposal. The basis for this assessment should be a monitoring program, with sampling stations located upstream and downstream of the proposal. Complementary stream-flow data should also be obtained from historical records (if available) to aid in interpretation.	Y	11.3.6	11.3.6
The water quality should be described, including seasonal variations or variations with flow where applicable. A relevant range of physical, chemical and biological parameters should be measured to gauge the environmental harm on any affected creek or wetland system.	Y	11.3.6	11.3.6
The EIS should describe the environmental values of the surface waterways of the affected area in terms of:			
• values identified in the EPP(Water)	Y	11.2.2	Chapter 11
• sustainability, including both quality and quantity	Y	11.2.2, 11.2.4, 11.3.2	Chapter 11
• physical integrity, fluvial processes and morphology of watercourses, including riparian zone vegetation and form	Y	11.3.5	Chapter 11
• any water resource plans, land and water management plans relevant to the affected catchment	Y	11.2	Chapter 11
3.4.1.2 Groundwater			
The EIS should review the quality, quantity and significance of groundwater in the project area, together with groundwater use in neighbouring areas. Specific reference should be made to the Great Artesian Basin Water Resource Plan (2006) and Great Artesian Basin Resource Operation Plans (2006).	Y	10.2, 11.2.7	10.2, 11.2.7
The review should also provide an assessment of the potential take of water from the GAB and how current users and the aquifer itself and any connected aquifers will be affected by the take of water from the GAB.	Y	11.4.5, 11.5	11.4.5, 11.5
The review should include a survey of existing groundwater supply facilities (bores, wells, or excavations) to the extent of any environmental harm. The information to be gathered for analysis is to include:	Y	10.2.1, 10.3.3	10.3
• location	Y	10.2.1, 10.3.3	
• pumping parameters	Y	10.2.1, 10.3.3	
• draw down and recharge at normal pumping rates	Y	10.2.1, 10.3.3	
• seasonal variations (if records exist) of groundwater levels	Y	10.2.1, 10.3.3	
A network of observation points which would satisfactorily monitor groundwater resources both before and after commencement of operations should be developed.	Y	10.2.1	10.8
This section should include reference to:	Y	10.3.2	
• Nature of the aquifer(s):	Y	10.3.2	10.3
– geology/stratigraphy—such as alluvium, volcanic, metamorphic	Y	10.3.2	
– aquifer type—such as confined, unconfined	Y	10.3.2	
– depth to and thickness of the aquifers.	Y	10.3.2	
• Hydrology of the aquifer(s):	Y	10.3.2	10.3
– depth to water level and seasonal changes in levels	Y	10.3.2	
– groundwater flow directions (defined from water level contours)	Y	10.3.2	
– interaction with surface water	Y	10.3.2	
– interaction with sea/salt water	Y	10.3.2	
– possible sources of recharge	Y	10.3.2	
– vulnerability to pollution.	Y	10.3.2	
The data obtained from the groundwater survey should be sufficient to enable specification of the major ionic species present in the groundwater, pH, electrical conductivity and total dissolved solids.	Y	10.2.1, 10.3.2	10.3.2
Describe the environmental values of the underground waters of the affected area in terms of:	Y	10.3.3	
• values identified in the EPP(Water)	Y	10.3.3	
• sustainability, including both quality and quantity	Y	10.3.3	
• physical integrity, fluvial processes and morphology of groundwater resources.	Y	10.3.3	
## 3.4.2 Potential impacts and mitigation measures			
This section is to assess potential impacts on water resource environmental values identified in the previous section. It will also define and describe the objectives and practical measures for protecting or enhancing water resource environmental values, to describe how nominated quantitative standards and indicators may be achieved, and how the achievement of the objectives will be monitored, audited and managed.	Y	11.5	11.5
The EIS should describe the possible environmental harm caused by the proposal to environmental values for water as expressed in the EPP(Water).	Y	11.5	11.5
Water management controls should be described, addressing surface and groundwater quality, quantity, drainage patterns and sediment movements. The beneficial (environmental, production and recreational) use of nearby surface and groundwater should be discussed, along with the proposal for the diversion of affected creeks during mining, and the stabilisation of those works. Monitoring programs should be described which will assess the effectiveness of management strategies for protecting water quality during the construction, operation and decommissioning of the project.	Y	10.3.3, 11.5.3	10.8, 11.6
Key water management strategy objectives include:			
• protection of important local aquifers and protection of their waters	Y	10.3.3, 11.6.1	10.8, 11.6

• maintenance of sufficient quantity and quality of surface waters to protect existing beneficial downstream uses of those waters (including maintenance of in-stream biota and the littoral zone)	Y	11.6.1, 11.6.3	11.6
• management of impacts on flooding levels and frequencies both upstream and downstream of the project.	Y	11.6.4	11.6
Conduct a risk assessment for uncontrolled emissions to water due to system or catastrophic failure, implications of such emissions for human health and natural ecosystems, and list strategies to prevent, minimise and contain impacts.	Y	11.6.2	11.6
3.4.2.1 Surface water and water courses			
The potential environmental harm to the flow and the quality of surface waters from all phases of the project should be discussed, with particular reference to their suitability for the current and potential downstream uses, including the requirements of any affected riparian area, wetland, estuary, littoral zone, and any marine and in-stream biological uses. The impacts of surface water flow on existing infrastructure should be considered. Refer to the EPP(Water) and *Water Act 2000*.	Y	11.5.2, 11.5.3, 11.5.5, 11.6	11.5, 11.6
The hydrological impacts of the proposal should be assessed, particularly with regard to stream diversions, scouring and erosion, and changes to flooding levels and frequencies both upstream and downstream of the project. When flooding levels will be affected, modelling of afflux should be provided and illustrated with maps.	Y	11.5.4	11.5, 11.6
Quality characteristics discussed should be those appropriate to the downstream and upstream water uses that may be affected. Chemical and physical properties of any waste water (including concentrations of constituents) at the point of entering natural surface waters should be discussed along with toxicity of effluent constituents to flora and fauna.	Y	11.5.5	11.5, 11.6
Reference should be made to the properties of the land disturbed and processing liquid wastes, the technology for settling suspended clays from contaminated water, and the techniques to be employed to ensure that contaminated water is contained and successfully treated on the site.	Y	11.4.5, 11.6.1, 11.6.2	Chapter 11
In relation to water supply and usage, and wastewater disposal, the EIS should discuss anticipated flows of water to and from the proposal area.	Y	11.6.2	11.4
Where dams, weirs or ponds are proposed, the EIS should investigate the effects of predictable climatic extremes (storm events, floods and droughts) on: the capacity of the water storages (dams, weirs, ponds), the ability of these storages to retain contaminants; the structural integrity of the containing walls; relevant operating regime and the quality of water contained, and flows and quality of water discharged.	Y	11.6.2	Chapter 11
The design of all water storage facilities should follow the technical guidelines on site water management.	Y	11.2.3	6.4.4, Chapter 11
The need or otherwise for licensing of any dams (including referable dams) or creek diversions, under the Water Act 2000 should be discussed. Water allocation and water sources, including impacts on existing water entitlements, including water harvesting, should be established in consultation with DNRW.	Y	11.2.4	Chapter 11
Having regard for the requirements of the EPP(Water), the EIS should present the methods to avoid stormwater contamination by raw materials, wastes or products and present the means of containing, recycling, reusing, treating and disposing of stormwater. Where no-release water systems are to be used, the fate of salts and particulates derived from intake water should be discussed.	Y	11.6.1, 11.4.5	Chapter 11
The Australian and New Zealand Environment and Conservation Council (ANZECC, 2000) *National Water Quality Management Strategy, Australian Water Quality Guidelines for Fresh and Marine Waters* and the EPP(Water) should be used as a reference for evaluating the effects of various levels of contamination.	Y	11.5.5	11.2.2
Options for mitigation and the effectiveness of mitigation measures should be discussed with particular reference to sediment, acidity, salinity and other emissions of a hazardous or toxic nature to human health, flora or fauna.	Y	11.6.1	11.6
Where it is proposed that creeks will be diverted, the EIS should detail how rehabilitation will affect both the physical and ecological condition of the creek's bed and banks and the quality of water in it. Furthermore, the EIS should describe the monitoring that will be undertaken after decommissioning, and who will have responsibility for management measures and corrective action, to ensure that rehabilitated creeks do not degrade.	Y	11.6.1	11.6
3.4.2.2 Groundwater			
The EIS should include an assessment of the potential environmental impact caused by the project (and its associated project components) to local groundwater resources, including the potential for groundwater induced salinity.	Y	10.5	10.5
The impact assessment should define the extent of the area within which groundwater resources are likely to be affected by the proposed operations and the significance of the project to groundwater depletion or recharge, and propose management options available to monitor and mitigate these effects. The response of the groundwater resource to the progression and finally cessation of the proposal should be described.	Y	10.5.1, 10.5.2, 10.8	10.5, 10.6, 10.8
An assessment should be undertaken of the impact of the project on the local ground water regime caused by the altered porosity and permeability of any land disturbance.	Y	10.5.1	10.5
Any potential for the project to impact on groundwater dependent vegetation should be assessed and described. Avoidance and mitigation measures should be described.	Y	Chapter 17	Chapters 17A and 17B
An assessment of the potential to contaminate groundwater resources and measures to prevent, mitigate and remediate such contamination should be discussed.	Y	10.6.2	10.6.2, 10.8
3.5 Air			
3.5.1 Description of environmental values			
This section describes the existing air environment that may be affected by the project.	Y	13.3	13.2, 13.3
A description of the existing air shed environment should be provided having regard for particulates, gaseous and odorous compounds. The background levels and sources of suspended particulates, SO_x, NO_x, and any other major constituent of the air environment that may be affected by the project should be discussed.	Y	13.3	13.3
Sufficient data on local meteorology and ambient levels of pollutants should be gathered to provide a baseline for later studies or for the modelling of air quality environmental harms within the air shed. Parameters should include air temperature, wind speed and direction, atmospheric stability, mixing depth and other parameters necessary for input to the models.	Y	Chapter 7	Chapter 7, 13.3
3.5.1.1 Greenhouse gas emissions			
This section of the EIS should:			
• provide an inventory of projected annual emissions for each relevant greenhouse gas, with total emissions expressed in CO_2 equivalent terms	Y	14.4, 14.5, 14.6	
• estimate emissions from upstream activities associated with the proposed project, including fossil fuel based electricity consumed	Y	14.4.4	
• briefly describe method(s) by which estimates were made.	Y	14.3	
Coal mining projects should include estimates of coal seam methane to be released as well as emissions resulting from such activities as transport of products to rail, and energy use by the project.	Y	14.4, 14.5, 14.6	
3.5.2 Potential impacts and mitigation measures			
This section defines and describes the objectives and practical measures for protecting or enhancing environmental values for air, to describe how nominated quantitative standards and indicators may be achieved, and how the achievement of the objectives will be monitored, audited and managed.	Y	13.4, 13.5	13.2, 13.6
Information should be submitted on the use of new technologies to reduce air emissions from the point source(s) or other emission sources.	Y	13.5	13.4, 13.5, 13.6
The objectives for air emissions should be stated in respect of relevant standards (ambient and ground level concentrations), relevant emission guidelines, and any relevant legislation, and the emissions modelled using a recognised atmospheric dispersion model.	Y	13.1.2, 13.1.4, 13.4.3	Chapter 13
The potential for interaction between the emissions from the plant and equipment, and emissions in the air shed, and the likely environmental harm from any such interaction, should also be detailed.	Y	13.1.4, 13.4	13.4, 13.5.3, 13.6.2
The proposed levels of emissions should be compared with the national environmental protection measures for ambient air quality (1998), the National Health Medical Research Council national guidelines (1985) for control of emissions from stationary sources, and the *Environmental Protection (Air) Policy (1997)*.	Y	13.1.1, 13.1.2	13.2
Where appropriate, the predicted average ground level concentrations in nearby areas should be provided.	Y	13.4	13.2, 13.5
These predictions should be made for both normal and expected maximum emission conditions and the worst case meteorological conditions should be identified and modelled where necessary.	Y	13.1.4, 13.3	13.2, 13.5
Ground level predictions should be made at any residential, industrial and agricultural developments believed to be sensitive to the effects of predicted emissions.	Y	13.3	13.2, 13.5
The techniques used to obtain the predictions should be referenced, and key assumptions and data sets explained.	Y	13.1.4, 13.3	13.2, 13.4
The assessment of the project's impact on air quality should include at least the following matters:			
• evaluate the contribution of nitrogen oxides, sulfur oxides and volatile hydrocarbon emissions from the proposal to impacts within the local air shed. Address both acute and cumulative impacts by considering the project in conjunction with existing emission sources within the region	Y	13.3.1	
• detail the features of the proposal designed to suppress or minimise emissions, including dusts and odours	Y	13.5	13.4, 13.5, 13.6
• the assessment of proposed levels of emissions of dust and odours should include emissions during both normal and upset conditions. Consideration should be given to the range of potential upset condition scenarios and the air emissions that may be generated as a result	Y	13.4.3	13.2
• where there is no single atmospheric dispersion model that is able to handle the different atmospheric dispersion characteristics exhibited in the proposal area (e.g. strong convection, terrain features, temperature inversions and pollutant re-circulation), a combination of acceptable models will need to be applied	Y	13.1.4	
• the limitations and accuracy of the applied atmospheric dispersion models should be discussed. The air quality modelling results should be discussed in light of the limitations and accuracy of the applied models	Y	13.1.4	

• air quality predictions should be compared to the relevant goals in the National Environmental Protection Council (Ambient Air Quality) Measure and the *Environmental Protection (Air) Policy 199*8 goals	Y	13.1.1, 13.1.2	13.2
• air shed management and the contribution of the project to air shed capacity in view of existing and future users of the air shed for assimilation and dispersion of emissions.	Y	13.6	13.6
3.5.2.1 Greenhouse gas reduction			
This section of the EIS should propose and assess greenhouse gas reduction measures against the background of the carbon pollution reduction scheme proposed by the federal government. It should include:			
• a description of how the proposed carbon pollution reduction scheme will or is anticipated to relate to the project	Y	14.9.1	
• a description of the proposed measures (alternatives and preferred) to avoid and/or minimise greenhouse gas emissions directly resulting from activities of the project, including such activities as transportation of products and consumables, and energy use by the project	Y	14.9	
• an assessment of how the preferred measures minimise emissions and achieve energy efficiency	Y	14.9	
• an indication of how the preferred measures for emission controls and energy consumption compare with practice in the relevant sector of industry with a view to achieving best practice environmental management.	Y	14.9	
Direct means of reducing greenhouse gas emissions could include such measures as:			
• minimising clearing at the site (which also has imperatives besides reducing greenhouse gas emissions)	Y	14.9.5, 14.10.4	
• integrating transport for the project with other local industries such that greenhouse gas emissions from the construction and running of transport infrastructure are minimised	Y	14.9.3	
• maximising the use of renewable energy sources	NA	14.9.5	
• co-locating coal seam methane use for energy production with coal extraction.	Y	14.9.4	
Consideration should also be given to indirect means of reducing greenhouse gas emissions that may be relevant in respect of the direct emissions of the project taking into account the proposed carbon pollution reduction scheme.			
The environmental management plan in the EIS should include a specific module to address greenhouse reduction. That module should include:			
• commitments to the reduction of greenhouse gas emissions from the project with details of the intended objectives, measures and performance standards to avoid, minimise and control emissions	Y	14.9	
• commitments to energy management, including undertaking periodic energy audits with a view to progressively improving energy efficiency	Y	14.9	
• a process for regular review of new technologies to identify opportunities to reduce emissions and use energy efficiently, consistent with best practice environmental management	Y	14.9.6	
• any voluntary initiatives such as projects undertaken as a component of the national Greenhouse Challenge Plus program, or research into reducing the energy carbon intensity of the project's processes or products	Y	14.9.5	
• commitments to monitor, audit and report on greenhouse emissions from all relevant activities and the success of reduction measures.	Y	14.9	
3.5.2.2 Climate change adaptation			
Climate change, through alterations to weather patterns and rising sea level, has the potential to impact in the future on developments designed now. Most developments involve the transfer to, or use by, a proponent of a community resource in one form or another, such as the granting of a non-renewable resource or the approval to discharge pollutants to air, water or land. Therefore, it is important that the project design be adaptive to climate change so that community resources are not depreciated by projects that would be abandoned or require costly modification before their potential to provide a full return to the community is realised. Consequently, the EIS should provide an assessment of the project's vulnerabilities to climate change and describe possible adaptation strategies for the activity including:			
• a risk assessment of how changing patterns of rainfall and hydrology, temperature, extreme weather and sea level (where appropriate) may affect the viability and environmental management of the project	Y	14.1	
• the preferred and alternative adaptation strategies to be implemented	Y	14.10.4	
• commitments to undertaking, where practicable, a cooperative approach with government, other industry and other sectors to address adaptation to climate change.	Y	14.10.4	
The EPA recognises that predictions of climate change and its effects have inherent uncertainties, and that a balance must be found between the costs of preparing for climate change and the uncertainty of outcomes. However, proponents should use their best efforts to incorporate adaptation to climate change in their EIS and project design.			
## 3.6 Noise and vibration			
### 3.6.1 Description of environmental values			
This section describes the existing environmental values that may be affected by noise and vibration from project activities.	Y	15.3, 16.3	15.3, 16.3
If the proposed activity could adversely impact on the noise environment, baseline monitoring should be undertaken at a selection of sensitive sites affected by the proposal. Noise sensitive places are defined in the *Environmental Protection (Noise) Policy 1997* (EPP(Noise)). Long-term measured background noise levels that take into account seasonal variations are required. The locations of sensitive sites should be identified on a map at a suitable scale. The results of any baseline monitoring of noise and vibration in the proposed vicinity of the proposal should be described.	Y	15.3.1, 15.3.2	15.3
Sufficient data should be gathered to provide a baseline for later studies. The daily variation of background noise levels at nearby sensitive sites should be monitored and reported in the EIS, with particular regard given to detailing variations at different periods of the night. Monitoring methods should adhere to accepted best practice methodologies, relevant EPA guidelines and Australian Standards, and any relevant requirements of the EPP(Noise).	Y	15.3.1	15.2, 15.3
Comment should be provided on any current activities near the proposal area that may cause a background level of ground vibration (for example: major roads, quarrying activities, etc.).	Y	16.3.1	
### 3.6.2 Potential impacts and mitigation measures			
This section defines and describes the objectives and practical measures for protecting or enhancing environmental values from impacts by noise and vibration, describes how nominated quantitative standards and indicators may be achieved for noise and vibration management, and how the achievement of the objectives will be monitored, audited and managed. The assessment of noise impacts should include matters raised in the document *The health effects of environmental noise – other than hearing loss* published by the enHealth Council, 2004 (or later editions).	Y	15.2.1, 15.5, 15.6, 16.2.1, 16.5, 16.6	15.2.1, 15.6, 16.2.1, 16.5, 16.6
Information, including mapped noise contours from a suitable acoustic model, should be submitted based on the proposed generation of noise. The potential environmental harm of noise and vibration at all potentially sensitive places, in particular, any place of work or residence should be quantified in terms of objectives, standards and indicators to be achieved. Particular consideration should be given to emissions of low-frequency noise; that is, noise with components below 200Hz. The assessment should also include environmental impacts on terrestrial and aquatic animals and avifauna, particularly migratory species. Proposed measures for the minimisation or elimination of impacts should be provided, including details and illustrations of any screening, lining, enclosing or bunding. A discussion should be provided of timing schedules for construction and operations with respect to minimising environmental nuisance and harm from noise.	Y	15.3.1, 15.5.3, 15.5.8, 15.6, Chapter 17	15.5, 15.6
Information should be supplied on blasting which might cause ground vibration or fly rock on, or adjacent to, the site with particular attention given to places of work, residence, recreation, worship and general amenity. The magnitude, duration and frequency of any vibration should be discussed. A discussion should be provided of measures to prevent or minimise environmental nuisance and harm. Blasting noise and vibration limits are provided in section 6 of the *Environmental Protection Regulation 1998*. Reference should also be made to the *EPA Guideline: Noise and vibration from blasting*.	Y	16.5	16.5, 16.6.2
The assessment should also address off-site noise and vibration impacts that could arise due to increased road transportation directly resulting from the project.	Y	15.5.7	
## 3.7 Waste			
### 3.7.1 Waste generation			
This section should provide technical details of waste generation, treatment, minimisation and management. All sources of waste to be generated during the construction, operational and decommissioning stages of the project should be identified and described in this section. Refer to each of the waste streams previously described and provide references to more detailed descriptions of the relevant environmental values in other sections of the EIS.	Y	18.5, 18.6, 18.7.2, 18.7.3, 18.7.4, 18.7.5	6.4.4, Chapter 18
### 3.7.2 Waste management			
The EIS should provide details of waste management strategies (including reduction, reuse, recycling, storage, transport and disposal of waste) which demonstrate that waste minimisation and cleaner production techniques and designs have been implemented through the selection of processes, equipment and facilities to prevent or minimise environmental impacts.	Y	18.7	18.7
This section should assess the potential impact of all wastes to be generated during the construction, operational and decommissioning stages of the project, and provide details of each waste in terms of:			
• operational handling and fate of all wastes including storage	Y	18.7.1, 18.7.3	18.7
• on-site treatment methods proposed for the wastes	Y	18.7.1, 18.7.3	18.7
• methods of disposal (including the need to transport wastes off-site for disposal) proposed to be used for any trade wastes, liquid wastes and solid wastes	Y	18.7.1, 18.5.2, 18.5.3	18.7
• the potential level of impact on environmental values	Y	18.6	
• proposed discharge/disposal criteria for liquid and solid wastes	Y	18.5	

• measures to ensure stability of the dumps and impoundments should be described	Y	Chapter 9	Chapter 9
• methods to prevent, seepage and contamination of groundwater from stockpiles and/or dumps should be given	Y	Chapter 11	10.8
• market demand for recyclable waste (where appropriate) should be addressed			
• waste minimisation techniques processes proposed	Y	18.7.1	18.7.1
• decommissioning of the site.	Y	18.7	
Having regard for best practice waste management strategies and the *Environmental Protection (Waste) Policy,* the proposals for waste avoidance, reuse, recycling, treatment and disposal should be described in the appropriate sub-section below. Information should also be provided on the variability, composition and generation rates of all waste produced at the site and processing plant.	Y	18.2.1, 18.7.1, 18.7.2, 18.7.3	18.5
Cleaner production waste management planning should be detailed especially as to how these concepts have been applied to preventing or minimising environmental impacts at each stage of the proposal. Measures to improve natural resource use efficiency (e.g. energy and water), integrated processing design, any co-generation of power and by-product reuse as shown in a material/energy flow analysis should be presented.	Y	18.7.1	18.7
This information is required to enable the resource management agencies and other stakeholders to assess the efficiency of resource use, and allocation issues.			
• **Air emissions** — this section should provide information on air emissions, including particulates, fumes and odours, during the construction and operation stages of the project. Particulate emissions include those that would be produced by any industrial process, or disturbed by wind action on stockpiles and conveyors, or by transportation equipment (e.g. trucks, either by entrainment from the load or by passage on unsealed roads). The methods to be employed in the mitigation of impacts from air emissions should be described in the Section 3.5 Air.		Chapter 13 & 14	Chapter 13
• **Excavated waste** — this section should describe and show the location, design and methods for constructing dumps for waste rock and subsoil. The location of the dumps should be shown on a map relative to topography and other natural features of the area.	Y	Chapter 9	Chapter 9
• **Tailings** — this section should describe the tailings waste produced by preparation and/or processing plants and the proposed methods for its disposal. Describe alternative options for tailings disposal including the proposed location, site suitability and volume of any tailings storage and/or disposal site(s), including the method of construction.	Y	6.4.4	6.4.4
Describe the approximate quantity of tailings to be produced by the project and its processing plant annually for the life of the mine. Tailings characterisation information should also be presented in this section.	Y	6.4.4	6.4.4
The construction of the tailings storage facility should be described with regards to construction material and design. The EIS should address how the tailings storage facility complies with relevant codes for the construction of such containment systems.	Y	6.4.4	6.4.4
Describe the strategies to monitor and manage seepage into ground and surface waters. The location of the storage and/or disposal site with regard to adjacent creeks and rivers should be described.	Y	6.4.4	6.4.4, 10.8, Chapter 11
• **Solid waste disposal** — describe the quantity and quality of solid wastes (other than waste rock, subsoil and tailings addressed in other sections) and the proposed methods of their disposal. The proposed location, site suitability, dimensions and volume of any landfill, including its method of construction, should be shown.	Y	18.5	18.5, 18.7
• **Liquid waste** — a description should be presented of the origin, quality and quantity of wastewater and any immiscible liquid waste originating from the project other than that addressed in other sections. Particular attention should be given to the capacity of wastes to generate acid, and saline or sodic wastewater. A water balance for the proposal and processing plant is required to account for the estimated usage of water.	Y	11.2.3, 11.2.4, 18.7.2; 18.7.3	Chapter 11
The EIS may need to consider the following effects:			
– groundwater from excavations	Y	Chapter 11	Chapter 11
– rainfall directly onto disturbed surface areas	Y	Chapter 11	Chapter 11
– run-off from roads, plant and industrial areas, chemical storage areas	Y	Chapter 11	Chapter 11
– drainage (i.e. run-off plus any seepage or leakage)	Y	Chapter 11	Chapter 11
– seepage from other waste storages	Y	18.6.2	Chapter 11
– water usage for (1) process use (2) dust suppression, and (3) domestic purposes	Y	Chapter 11	Chapter 11
– evaporation	Y	Chapter 11	Chapter 11
– domestic sewage treatment—disposal of liquid effluent and sludge	Y	18.7.2	Chapter 11, 18.7
– water supply treatment plant—disposal of wastes.	Y	Chapter 6	Chapter 11
3.8 Transport			
3.8.1 Transport methods and routes			
The EIS should describe transport modes and routes for all aspects of the transport task, including arrangements for the transport of plant, equipment, products, wastes and personnel during both the construction and operation of the project.	Y	12.4	
The description must address the use of existing facilities and all requirements for the construction, upgrading or relocation of any transport related infrastructure. Information should include:			
• existing traffic volumes on the proposed transport routes	Y	12.3.2	
• volumes, tonnage, and composition of construction inputs and production outputs	Y	12.4	
• hazardous or dangerous material that may be transported	Y	12.4	
• method of transport (e.g. sea, rail, road) and the type of vehicles most likely to be used for transport	Y	12.4	
• number and type of workforce traffic and service vehicles	Y	12.4	
• number of trips generated (both light and heavy vehicles)	Y	12.5	
• origin and destination of inputs and outputs and transport routes proposed (with the use of maps)	Y	12.4	
• details of over-dimension or excess mass loads	Y	12.4	
• timing and duration of transport activities.	Y	12.4	
The EIS should clearly and fully describe transport information for all stages of the project including:			
• all requirements for the construction, upgrading or re-location of any transport-related infrastructure, including any need for increased road maintenance	Y	6.6.2 and 12.6	
• any new access requirements to state-controlled or local government roads	Y	6.6.2 and 12.4	
• sufficient details to allow the Department of Main Roads (DMR), Queensland Transport and local government and other relevant authorities to ascertain compliance with legislative and design requirements.	Y	12.4 and technical report	12.5, 12.6, 12.7
3.8.2 Potential impacts and mitigation measures			
The EIS must provide sufficient information to allow an independent assessment of how the state-controlled and local government road networks will be affected at the local and regional level, and indicate clearly the corrective measures and mitigation strategies necessary to address adverse road impacts including a wet weather management strategy.	Y	12.5 and 12.6	12.5, 12.6, 12.7
An assessment of impacts to existing transport infrastructure associated with project activities should be provided and include the following:			
• the likely impacts and mitigation strategies of any new roads or road realignments that are required as a result of the project	Y	6.6.2	6.6.2
• the likely impacts and mitigation strategies of increased traffic on local and regional road networks (with appropriate directional distributions), with reference to:			
– volumes of project inputs and outputs (types and quantities), vehicles, their origin, destination and routes used for transport, including plant, raw materials, wastes, hazardous materials, finished products	Y	12.4, 12.5 and 12.6	
– volume of traffic generated by workforce personnel, visitors and service vehicles, method of transport (vehicle type and number), anticipated times at which movements may occur and likely routes	Y	12.4, 12.5 and 12.6	
– details of heavy and oversize/indivisible loads (including types and composition), and the proposed transport routes including waterway crossings	Y	12.4, 12.5 and 12.6	
– road safety issues, including safe access to and from construction sites and school bus routes within the project area (e.g. consideration of the need for turning lanes, improved sight lines, waiting areas, off-road parking locations)	Y	12.5.3 and 12.7.1	12.7.1
– reduced efficiency of traffic flows or intersections along key routes, especially during construction	Y	12.4 and 12.5.1	
– additional wear or reduced life of pavements requiring additional or accelerated rehabilitation and maintenance, if any	Y	12.4 and 12.5.2	12.6
– changes in waterway areas/catchment and drainage lines which may impact on road operations and assets (particularly rail crossing), not addressed in section 3.4	Y	11.5.4	
– operation of existing bus routes and services	Y	12.5.3	12.5
– risks of driver fatigue of workers driving between the project to regional destinations	Y	12.5.3	12.7
– proposed traffic control and traffic management	Y	12.6	12.7
– public transport requirements of the development	NA	Private transport is being provided to meet the Project's needs	Private transport is being provided to meet the Project's needs
– steps to prevent public access to construction access ways that are not public roads.	Y	6.6.2 and 6.6.3	
• specific issues related to construction phase activities, including:			

– site depot location and access – construction traffic on local road networks, daily movement patterns, possible road closures and emergency access, especially in rural and urban residential areas – methods to be adopted to avoid obstruction to other road users during construction.	Y	5.7.3, 6.6.2, 12.6.1	
Details of the relative impacts generated by each of the project's components to existing transport infrastructure during construction, operation and decommissioning phases should be provided.	Y	12.5	
This section, in addition to detailing the impacts of all road and rail construction and maintenance, is to include an evaluation of the impact of the project on existing roads, railways, powerlines, pipelines, telecommunication lines, waterways and stormwater flow-paths located within or close proximity to transport infrastructure. This evaluation should include any potential requirements to reschedule existing infrastructure maintenance programs.	Y	6.6, 11.5.4, 12.6	
Special reference should be made to any relationship between project road works and works proposed in the current Road Implementation Program of the DMR. Road infrastructure should be described and assessed according to DMR's 'Guidelines for Assessment of Road Impacts of Development Projects (April 2006)'.	Y	12.6, 12.3.1	
Strategies for managing the impacts of the project on road safety, including access for emergency response vehicles especially with regard to proposed road diversions, should be presented.	Y	6.6.2, 12.5.3, 24.5.1, 24.6.4	6.6.2, 12.7
A comparison of the traffic situation and road conditions with and without the project should be shown.	Y	12.5	
This section should also discuss how transport elements of the project relate to Queensland Transport's existing transport strategies for the Central Highlands area and the future infrastructure needs of this area as presented in local and state government documentation.	Y	6.6.4, 12.7.1	
As air transport is an option for the project, this section should describe the likely airstrip options (upgrade existing or develop new), proposed locations, operating regime, including make-up of passengers (i.e. workforce and/or members of the public), the likely impacts and mitigation strategies, as well as the regulatory requirements of relevant Commonwealth and state bodies.	Y	6.6.4	6.6.4
The EIS should also outline arrangements made with the Gladstone Ports Corporation for the storage, handling and export of coal from the mine.	Y	6.5.3	6.5.3
Mitigation strategies are to be detailed in a draft road-use management plan, to be finalised in consultation with DMR, which will:			
• consider DMR's future upgrades of the road network, as detailed in the roads implementation program, which may affect the study area	Y	12.3.1	
• detail impact mitigation strategies including the construction of new transport infrastructure referencing relevant road authority standards and practices (any required road works should be designed and constructed in accordance to Main Roads' Road Planning and Design Manual 2004 or as amended)	Y	12.7.1	
• provide timing and responsibilities for any required road works and additional transport infrastructure. (Traffic management issues for any required road works and any approvals under the *Transport Infrastructure Act (Qld) 1994* may be finalised in a traffic management plan at the project pre-construction stage)	Y	6.6.2	6.6.2
• provide information on product spill contingency plans and the adequacy of equipment and facilities to deal with possible spills for the transport modes of the project if applicable. Indicate whether there is a need to update existing plans based on increase in frequency of traffic and volumes to be transported.	Y	23.6, 23.8	
It is understood that some detailed design elements of the road-use management plan may not be known prior to completion of the EIS, and that this information will be supplied subsequently to DMR and other road authorities.	Y		
3.9 Indigenous cultural heritage			
3.9.1 Description of indigenous cultural heritage values			
The EIS should describe the known indigenous cultural heritage values that may be affected by the project. An indigenous cultural heritage survey (as part of the Cultural Heritage Management Plan (CHMP) process or otherwise) should be undertaken for significant Aboriginal objects and significant Aboriginal areas. The indigenous cultural heritage survey should:			
• refer to the DNRW Indigenous Site Database and any existing literature relating to the affected areas	Y	20A.2	
• refer to: o the consultation and negotiation with traditional owners and the outcomes about: - significant Aboriginal Objects and Significant Aboriginal Areas - confidentiality of culturally sensitive information o The involvement of traditional owners in field surveys.	Y	20A.3, 20A.3	20A.3, 20A.6
• include locations of significant Aboriginal objects and significant Aboriginal areas identified during the survey and which are likely to be impacted by the project	Y	20A2, Table 20A-1	
• provide a report of work done which includes background research, relevant environmental data and methodology, as well as results of field surveys, significance assessment and conclusions and management recommendations (having due for any confidentiality requirements specified by community representatives).	Y	20A.3: 20A.3.1 to 20A.3.3	
3.9.2 Potential impacts and mitigation measures			
The management of indigenous cultural heritage impacts should be detailed in either a native title agreement with traditional owners or in a CHMP, with the native title agreement or plan to be developed in a form that complies with the provisions of Part 7 of the *Aboriginal Cultural Heritage Act 2003*, thereby meeting the cultural heritage duty of care. The agreement or plan must provide a process for the conduct of comprehensive cultural heritage investigations and the identification of significant Aboriginal objects and significant Aboriginal areas in the proposed project area. It is also to provide a process for the management of those objects, areas and values identified in the proposed project area.	Y	20A.4, 20A.5	20A.6
The agreement or plan should include the following:			
• a process for including Aboriginal communities or Aboriginal parties in the identification, management and protection of Aboriginal cultural heritage in the project area	Y	20A.4, 20A.5	
• a process for undertaking a comprehensive and systematic cultural heritage assessment	Y	20A.4, 20A.5	
• processes for the mitigation, management and protection of identified cultural heritage objects and areas in the project area, and in any areas to be affected by development of any associated infrastructure, both during construction and operational phases of the project	Y	20A.4, 20A.5	
• provision for the management of the accidental discovery of cultural material, including burials, in the project area	Y	20A.4, 20A.5	
• processes for determining any requirements for monitoring of the project during construction, and measures by which any monitoring program is to be implemented	Y	20A.4, 20A.5	
• Indigenous cultural heritage induction and awareness programs for project staff, subcontractors and staff, consultants and agents of the project	Y	20A.4, 20A.5	
• a conflict resolution process.	Y	20A.4, 20A.5	
The development of the agreement or plan should be negotiated with all relevant stakeholder representatives, subject to any confidentiality specified by the Aboriginal community, registered native title applicants, and/or Aboriginal parties as appropriate.			20A.6
As a minimum, impact assessment, management and protection strategies should satisfy statutory responsibilities and duties of care under the *Aboriginal Cultural Heritage Act 2003* and the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)*.			20A.6
If a CHMP has not been approved by the submission of the EIS to the CG then the following should be provided:			
• a outline of the draft CHMP, subject to any confidentiality provisions, with the position of the endorsed cultural heritage parties	Y	20A.4	20A.6
• details of the proposed steps and timeframes for seeking the ratification of the CHMP.	Y	20A.6	20A.6
3.10 Non-indigenous cultural heritage			
3.10.1 Description of non-indigenous cultural heritage values			
The EIS should describe the existing environmental values for non-indigenous cultural heritage that may be affected by the project activities. The non-indigenous cultural heritage survey should:			
• refer to: o the Australian Heritage Places Inventory; o the EPA Queensland Heritage Register and other information regarding places of potential non-indigenous cultural heritage significance; o local government heritage register; and o any existing literature relating to the affected areas.	Y	20B.3.1	
• refer to consultations and negotiations with the local community and historical societies about: o places of non-indigenous cultural heritage significance; and o the significance of any non-indigenous cultural heritage places located or identified.	Y	20B.3.1, 20B.3.2, 20B.3.3	
• include locations of culturally significant sites likely to be impacted by the project	Y	20B.4, 20B.5	
• provide a constraints' analysis of the proposed development area to identify and record non-indigenous cultural heritage places	Y	20B.4, 20B.5	
• provide the location of mining areas with historical significance should be shown on maps	Y	Fig 20B.1.V1.3, 20B.5.2	

• provide a report of work done which includes background research, relevant environmental data and methodology, as well as results of field surveys, significance assessment and conclusions and management recommendations (having due regard for any confidentiality requirements specified by community representatives).	Y	Technical Report 20B-1-V1.5	Addendum to the Technical Report 20B-1-SV1.5
As a minimum, investigations and consultation should be undertaken in such manner and detail to satisfy statutory responsibilities and duties of care, under the EPBC Act and *Queensland Heritage Act 1992*.	Y	1.3	
3.10.2 Potential impacts and mitigation measures			
The proponent should provide an assessment of any likely effects on sites of non-indigenous cultural heritage values, including but not limited to the following:			
• description of the significance of artefacts, items or places of conservation or non-indigenous cultural heritage value likely to be affected by the project and their values at a local, regional and national level	Y	20B.5.1, 20B.5.2 and Table 20B.1	20B.5
• recommended means of mitigating any negative impacts on non-indigenous cultural heritage values and enhancing any positive impacts	Y	20B.6.1, 20B.6.2	20B.5, 20B.6
• negotiations with Queensland Heritage Council and the EPA regarding management of places of historic heritage significance, taking account also of community interests and concerns	Y	20B.3.1	20B.5
• documented management strategies in accordance with the outcomes of negotiations with Queensland Heritage Council, EPA and the community.	Y	20B.6.1	20B.5, 20B.6
As a minimum, impact assessment, management and protection strategies should satisfy statutory responsibilities and duties of care, including those under the EPBC Act and *Queensland Heritage Act 1992*.	Y	20B.2.1, 20B.2.2	
3.11 Health and safety			
3.11.1 Description of existing public health and safety community values			
This section describes the existing community values for public health and safety that may be affected by the project. For projects proposing air emissions, and/or those with the potential to emit odours, nearby and other potentially affected populations should be identified and described. Particular attention should be paid to those sections of the population, such as children and the elderly that are especially sensitive to environmental health factors.	Y	21.6, 24.3, 24.4	
3.11.2 Potential impacts and mitigation measures			
This section defines and describes the objectives and practical measures for protecting or enhancing health and safety community values, describes how nominated quantitative standards and indicators may be achieved for social impacts management, and how the achievement of the objectives will be monitored, audited and managed.	Y	24.5, 24.6	
The EIS should assess the effects on the project workforce of occupational health and safety risks and the impacts on the community in terms of health, safety, and quality of life from project operations and emissions. Any impacts on the health and safety of the community, workforce, suppliers and other stakeholders should be detailed in terms of health, safety, quality of life from factors such as air emissions, odour, dust and noise.	Y	24.5, 24.6	Chapters 13, 15, 16
Map(s) should be provided showing the locations of sensitive receptors, such as, but not necessarily limited to, kindergartens, schools, hospitals, aged care facilities, residential areas, and centres of work (e.g. office buildings, factories and workshops). The EIS, illustrated by the maps, should discuss how planned discharges from the project could impact on public health in the short and long term, and should include an assessment of the cumulative impacts on public health values caused by the proposal, either in isolation or by combination with other known existing or planned sources of contamination.	Y	Figure 8-3-V1.3, 24.6.3, 24.6.4	Figure 6-1-SV1.3
The EIS should address the project's potential for providing disease vectors. Measures to control mosquito and biting midge breeding should be described. Any use of recycled water should be assessed for its potential to cause infection by the transmission of bacteria and/or viruses by contact, dispersion of aerosols, and ingestion (e.g. via use on food crops). Similarly, the use of recycled water should be assessed for its potential to cause harm to health via the food chain due to contaminants such as heavy metals and persistent organic chemicals. Practical monitoring regimes should also be recommended in this section.	Y	24.6.3	17B.6.8
3.12 Cumulative impacts			
The purpose of this section is to provide clear and concise information on the overall impacts of the project, and to discuss the interrelationship of these impacts.	Y	Chapter 26	
This is in addition to the discussion of cumulative impacts which feature in the relevant sections.	Y	Chapter 26	
The cumulative impacts as they relate to particular issues (e.g. water management, cultural heritage, social and economic costs and benefits, community disruption and accommodation etc.) may also be discussed in this section.	Y	Chapter 26	
These impacts should be considered over time or in combination with other impacts because of the scale, intensity, duration or frequency of the impacts.	Y	Chapter 26	
Cumulative impacts should also take into consideration other infrastructure projects. In particular, the requirements of any relevant state planning policies, environmental protection policies, national environmental protection measures, water resource planning and any other relevant plans should be addressed	Y	26.3.2, 26.3.3 and 26.3.4	26.3.4
The methodology to be used to determine the cumulative impacts of the project should be discussed. The methodology should detail the range of variables to be considered including, where applicable, relevant baseline or other criteria upon which the incremental aspects of the project should be assessed.	Y	26.2	
4 Social values and management of impacts			
4.1 Description of existing social values			
This section describes the existing social values that may be affected by the proposal.	Y	21.5	
The social amenity and use of the proposal area and adjacent areas for rural, agricultural, forestry, fishing, recreational, industrial, educational or residential purposes should be described. Consideration should be given to:			
• community infrastructure and services, access and mobility	Y	21.5.1	
• population and demographics of the affected community	Y	21.5.1	
• local community values, vitality and lifestyles	Y	21.5.2	
• recreational, cultural, leisure and sporting facilities and activities in relation to the affected area	Y	21.5	
• health and educational facilities	Y	21.5	
• on farm activities near the proposed activities	Y	21.5	
• current property values	Y	21.5	
• number of properties directly affected by the project	Y	21.6	
• number of families directly affected by the project, this should include not only property owners but also families of workers either living on the property or workers where the property is their primary employment	Y	21.6	
• Aboriginal people's traditional and contemporary uses of the land affected by the project.	Y	20A.4	
Describe the social values for the affected area in terms of the integrity of social conditions, including amenity and liveability, harmony and well being, sense of community, access to recreation, and access to social and community services and infrastructure.	Y	21.5.2	
Social, economic and cultural values are not as easily separated as physical and ecological values. Therefore it may be necessary for some material in this section to be cross-referenced with in section 3.9 Indigenous cultural heritage, section 3.10 Non-indigenous cultural heritage and Section 5 Impacts on state and local economies and management of those impacts.	Y	21.5.2	
Information should also be provided on the existing housing market in the area, with an emphasis on:			
• the size of the private rental market	Y	21.5.1	
• the vacancy rate of rental accommodation, including assessment of seasonal fluctuations	Y	21.5.1	
• typical rents	Y	21.5.1	
• the availability and typical cost of housing for purchase	Y	21.5.1	
• the level of social housing	Y	21.5.1	
• constraints and opportunities for new housing construction, including the capacity of the local land development and housing construction industries to provide new housing.	Y	21.5.1	21.6
4.2 Potential impacts and mitigation measures			
This section defines and describes the objectives and practical measures for protecting or enhancing social values, describes how nominated quantitative standards and indicators may be achieved for social impacts management, and how the achievement of the objectives will be monitored, audited and managed.	Y	21.8	21.8
The social impact assessment of the project should consider the information gathered in the community consultation program and the analysis of the existing socio-economic environment, and describe the project's impact, both beneficial and adverse, on the local community. The impacts of the project on local and regional residents, community services and recreational activities are to be analysed and discussed for all stages of the development. The nature and extent of the community consultation program are to be described and a summary of the results incorporated in the EIS.	Y	21.1, 21.6	

The social impact assessment should include sufficient data to enable State authorities, such as Queensland Health and Education Queensland, to plan for the continuing provision of public services in the region of the project. Proponents of projects that are likely to result in a significant increase in population of an area should consult the relevant management units of the State authorities, and summarise the results of the consultations in the EIS. The summary should discuss how the impacts of population increase on public services, particularly health and education, would be mitigated.	Y	21.2, 21.6	21.6, 21.8
The social impact assessment of the project is to be carried out in consultation with the Department of Communities. The assessment of impacts should describe the likely response of affected communities and identify possible beneficial and adverse impacts (both immediate and cumulative). These impacts should be considered both at the regional and local level.	Y	Chapter 21	
The EIS should address the following matters:			
• include an assessment of impacts on local residents, current land uses and existing lifestyles and enterprises	Y	21.6	
• include an assessment of impacts on local and state labour markets, with regard to the source of the workforce. This information is to be presented according to occupational groupings of the workforce. In relation to the source of the workforce, information is required as to whether the proponent, and/or contractors, are likely to employ locally or through other means and whether there are initiatives for local employment opportunities	Y	21.6	21.8
• the EIS should address impacts of both construction and operational workforces and associated contractors on housing demand, community services and community cohesion. The capability of the existing housing stock, including rental accommodation, to meet any additional demands created by the project is to be discussed, and where appropriate mitigation strategies proposed to limit displacement of existing rental households	Y	21.2, 21.6	
• the assessment of impacts should take account of relevant demographic, social, cultural and economic profiles	Y	21.5, 21.6	
• identify any new skills and training to be introduced in relation to the project. Adequate provision should be made for apprenticeship and worker training schemes. If possible, the occupational skill groups required and potential skill shortages anticipated should be indicated		21.6	21.8
• provide comment on how much service revenue and work from the project (e.g. provisioning, catering and site maintenance) would be likely to flow to existing communities in the area of the project, particularly if a fly-in, fly-out workforce is proposed	Y	22.5	
• include an assessment of impacts on existing local residents' values and aspirations	Y	21.6	
• in regard to affected Indigenous and non-indigenous communities respectively, particular attention should be paid to the effects on: o the ability of both indigenous and non-indigenous people, to live in accordance with their own values and priorities; o the use of and access to culturally important areas and landscapes; o the access to existing human and commercial services and housing; o the ability to participate in regional and local employment and training opportunities; and o the new project workforce and their families.	Y	21.5.1, Chapter 20A, Chapter 20B	
For the construction and operational phases of the development, describe the effects of the proposal on local and regional residents, including land acquisition and relocation issues and property valuation and marketability, community services and recreational activities. Discussion should also include situations where residents are offered lease arrangements for a period of time post ownership transfer.	Y	21.6	6.10, 6.11
Discuss the potential environmental harm on the amenity of adjacent areas used for cropping, grazing, forestry, recreation, industry, education, aesthetics, or scientific or residential purposes. Describe the implications of the proposal for future developments in the local area including constraints on surrounding land uses.	Y	21.6	
For identified impacts to social values, suggest mitigation and enhancement strategies and facilitate initial negotiations towards acceptance of these strategies. Practical monitoring regimes should also be recommended.	Y	21.6, 21.8	21.8
An assessment of the predicted impacts of the proponent's activities (including activities by any sub-contractors) on the local and regional housing markets should also be undertaken. The assessment should refer to the projected accommodation needs for the project in both the construction and operational phases, and estimate:	Y	21.2	
• the capacity of local and regional housing markets to meet the accommodation needs of the project, including the potential displacement of low-income residents from affordable rental accommodation and diminished availability of accommodation	Y	21.2, 21.5, 21.6	21.6
• any possible cumulative impacts on the local and regional housing market due to the presence of other existing or proposed major projects in the area, and seasonal employment factors	Y	21.4.3	
• the impact of the construction phase of the project on the local and regional residential development and housing construction industry, with particular reference to the demand for local contractors.	Y	21.6	
# 5 Impacts on State and local economies and management of those impacts			
## 5.1 Description of existing economic character			
This section describes the existing economic environment that may be affected by the project.			
The character and basis of the local and regional economies should be described including:			
• economic viability (including economic base and economic activity, future economic opportunities, current local and regional economic trends, in particular drought and rural downturn etc)	Y	22.3, 22.6.5	
• identification of existing labour force and unemployment statistics	Y	22.3.2, 22.3.3, 22.3.5, table 22-2	
• existing housing market, particularly rental accommodation which may be available for the project workforce	Y	22.3.6, 22.3.7	
• types and numbers of businesses	Y	22.3.3, Table 22-3	
• existing property and land values	Y	22.3.6	
• availability and prices of goods and services	Y	22.3.2	
• availability of suitable land for support industrial uses	Y	Chapter 8	
• historical descriptions of large-scale resource developments and their effects in the region.		n/a	
The economic impact statement should include estimates of the opportunity cost of the project and the loss of value to ecosystem services as a result of the disturbance or removal of natural or modified ecosystems during development.	Y	Chapter 2	
## 5.2 Potential impacts and mitigation measures			
The function of this section is to define and describe the objectives and practical measures for protecting or enhancing economic values, to describe how nominated quantitative standards and indicators may be achieved for economic management, and how the achievement of the objectives will be monitored, audited and managed.			
An economic impact assessment should be presented from national, state, regional and local perspectives as appropriate to the scale of the project. The general economic benefits from the project should be described.			
At a level of detail appropriate to the scale of the project, the analysis is to consider:			
• the significance of this proposal on the local and regional economic context	Y	22.4, 22.5, 22.6	22.5, 22.6
• the long and short-term beneficial (e.g. job creation) and adverse (e.g. competition with local small business, reduced local farming productivity) impacts that are likely to result from the development	Y	22.6.5	22.5, 22.6
• the potential, if any, for direct equity investment in the project by local businesses or communities		n/a	
• the cost to all levels of government of any additional infrastructure provision	Y	Chapter 21	
• implications for future development in the locality (including constraints on surrounding land uses and existing industry)	Y	22. 6.4, 22.6.5, also Chapter 8.	
• the potential economic impact of any major hazard identified in Section 6 Hazard and risk		n/a	
• the distributional effects of the proposal including proposals to mitigate any negative impact on disadvantaged groups			
• the value of lost opportunities (i.e. loss of GQAL) or gained opportunities for other economic activities anticipated in the future	Y	22.6.4, 22.6.5	22.5, 22.6
• impacts on local property values.	Y	22.3.6, 22.3.7,	
The effect on local labour markets should be discussed with regard to the number and source of the workforce. This information should be presented according to occupational groupings of the workforce and show anticipated peaks in numbers during the construction period. This information should include an estimate of the anticipated numbers of workers who will be accompanied by dependents, as well as those who will be unaccompanied (i.e. single workers).			
The impacts of both construction and operational workforces and associated contractors on housing demand should be addressed and include:			
• an accommodation strategy for the construction workforce, which addresses the estimated housing needs of both single and accompanied construction workers	Y	Chapter 5, Chapter 6	
• details of the size, location and management of any temporary worker accommodation that will be required either on-site or off-site	Y	Chapter 5, Chapter 6	
• maps, as necessary, to illustrate the location of any proposed construction workers' accommodation on-site or in the vicinity of the project	Y	Chapter 5, Chapter 6	
• the capability of the existing housing stock, particularly rental accommodation, to meet any additional demands created by the project	Y	Chapter 21	

• the capacity of water supply and sewerage systems to service any new residential development and any project proposals to supplement this infrastructure.	Y	Chapter 11	
Any new skills and training to be introduced in relation to the project should be identified, particularly opportunities for private investment in training. Adequate provision should be made for apprenticeship and worker training schemes, including consideration of a skills development and training strategy to assist disadvantaged groups as well as local residents.	Y	22.3.3, 22.3.5, Chapter 21	21.8
Consideration of the impacts of the project in relation to energy self-sufficiency, security of supply and balance of payments benefits may be discussed. Attention should be directed to the long and short-term effects of the project on the land-use of the surrounding area and existing industries, regional income and employment and the state economy. The scope of any studies should be referred to the government for input before undertaking the studies.	Y	Chapter 2 and Chapter 8,	
For identified impacts to economic values, suggest mitigatory and enhancement strategies and facilitate initial negotiations towards acceptance of these strategies. Practical monitoring regimes should also be recommended.	Y	22.6.5	
# 6 Hazard and risk			
## 6.1 Hazard and risk assessment			
This section of the EIS should describe the potential hazards and risks that may be associated with the project and should incorporate all known hazards, which may include:			
• identification of potential hazards, accidents, spillages and abnormal events occurring during all stages of the project, including possible frequency of occurrence	Y	23.5 and 23.6	
• indication of cumulative risk levels to surrounding land uses	Y	Chapter 26	
• identification of all hazardous substance to be used, stored, processed or produced and the rate of usage	Y	23.4.2	
• potential wildlife hazards such as snakes and disease vectors.	Y	23.6.1	
The EIS should deal with on-site risks. External risks to the project should also be considered. External risks from natural hazards could be determined on the basis of Australia/New Zealand Standard on Risk Management AS/NZS 4360:2004. The study should assess risks during the construction, operational and decommissioning phases associated with the project. These risks should be assessed in quantitative terms where possible. Possible hazards, accidents, and abnormal events that may arise for the project, both during construction and in operation should be described, including:			
• accidental release of hazardous goods or other materials	Y	23.5.2 and 23.6	
• fires associated with incidents arising from the project activities	Y	23.6.2	
• vulnerability of the project area to bushfire, flooding and landslip and other natural disasters.	Y	23.4.1	
Analysis of the consequences of each of these events on safety and environmental damage in the project area should be conducted, including direct harm to the environment as a result of project hazards. The analysis should examine the likelihood of these consequences being experienced, both individually and collectively.	Y	23.6	
In regard to the on-site handling and storage of explosive raw material, consultation is encouraged with the Department of Emergency Services Chemical Hazards and Emergency Management (CHEM) Services Unit.	Noted		
Details should be provided on the safeguards that would be employed or installed to reduce the likelihood and severity of hazards, consequences and risks to persons, fauna and environmentally sensitive sites within and adjacent to the project area.	Y	23.7	
## 6.2 Emergency management plan			
An outline of the proposed emergency management procedures should be provided for the range of situations identified in the above risk assessment where there are measurable risks. This should include an overview of the objectives and management principles to be adopted for the preparation of a detailed emergency plan (including emergency response and recovery/cleanup procedures) in consultation with the relevant emergency services. Planning should include reference to State Planning Policy 1/03, Mitigating the Adverse Impacts of Flood, Bushfire and Landslide.	Y	23.8	
In particular, the following should be presented:			
• contingency plans to deal with hydrocarbon (e.g. diesel, lubricating oils) oil spills during construction, operation and maintenance of the project	Y	23.9	
• contingency plans to account for natural disasters such as storms, flooding and fires during the construction, operation and maintenance phases	Y	23.9	
• emergency planning and response procedures that have been determined in consultation with state and regional emergency service providers	Y	23.9	
• plans for involvement of the relevant state agencies (such as the Department of Emergency Services, which includes the Queensland Ambulance Service, Queensland Fire and Rescue Service and Emergency Management Queensland) in relation to emergency medical response and transport and first aid matters.	Y	23.9	
# 7 Environmental management plan			
This section of the EIS should detail the EMP developed for the project. Separate EMPs should individually address the discrete project elements. The EMPs should be developed from, and be consistent with, the preceding information in the EIS.	Y	27.3	
An EMP should provide control actions in accordance with agreed performance criteria for specified acceptable levels of environmental harm.			
In addition, the EMPs should identify:			
• potential impacts on environmental values	Y	27.3.2 - 27.3.9	Chapter 27A
• mitigation strategies	Y	27.3.2 - 27.3.9	Chapter 27A
• relevant monitoring	Y	27.3.2 - 27.3.9	Chapter 27A
• appropriate indicators and performance criteria	Y	27.3.2 - 27.3.9	Chapter 27A
• reporting requirements	Y	27.4	Chapter 27A
• appropriate corrective actions, should an undesirable impact or unforeseen level of impact occur	Y	27.3.2 - 27.4	Chapter 27A
• the recording of and response to complaints.	Y	27.4	Chapter 27A
The aims of the EMPs are to provide:			
• commitments by the proponent to practical and achievable strategies and design standards (performance specifications) for the management of the project to ensure that environmental requirements are specified and complied with	Y	27.3.1 - 27.3.9	Chapter 27A
• an integrated plan for comprehensive monitoring and control of impacts	Y	27.4	Chapter 27A
• local, state and federal government authorities, stakeholders and the proponent with a common focus for approvals conditions and compliance with policies and conditions	Y	Entire document	EIS & Supplementary EIS
• the community with evidence that the environmental management of the project is acceptable.	Y	Entire document	EIS & Supplementary EIS
The recommended structure of each element of the EMP is:			
Element/issue			Chapter 27A
Aspect of construction or operation to be managed (as it affects environmental values).	Y	27.3.2 - 27.3.9	Chapter 27A
Operational policy -			
The operational policy or management objective that applies to the element.	Y	27.3.2 - 27.3.9; 27.4	Chapter 27A
Performance criteria -			
Measurable performance criteria (outcomes) for each element of the operation.	Y	27.3.2 - 27.3.9	Chapter 27A
Implementation strategy -			
The strategies, tasks or action program (to nominated operational design standards) that would be implemented to achieve the performance criteria.	Y	27.3.2 - 27.3.9	Chapter 27A
Monitoring -			
The monitoring requirements to measure actual performance (i.e. specified limits to pre- selected indicators of change).	Y	27.3.2 - 27.3.9; 27.4	Chapter 27A
Auditing -			
The auditing requirements to demonstrate implementation of agreed construction and operation environmental management strategies and compliance with agree performance criteria	Y	27.4	Chapter 27A
Reporting -			
Format, timing and responsibility for reporting and auditing of monitoring results	Y	27.4	Chapter 27A
Corrective action -			
The action (options) to be implemented in case a performance requirement is not reached and the person(s) responsible for action (including staff authority and responsibility management structure).	Y	27.4	Chapter 27A
An EMP should commit to manage, enhance or protect identified environmental values. The commitments should contain the following components for performance criteria and implementation strategies:			
• Environmental protection objectives for enhancing or protecting each relevant value.	Y	27.3.2 - 27.3.9	Chapter 27A
• Indicators to be measured to demonstrate the extent to which the environmental protection objective is achieved.	Y	27.3.2 - 27.3.9	Chapter 27A
• Environmental protection standards (a numerical target or value for the indicator), which defines the achievement of the objective.			Chapter 27A

• An action program to ensure the environmental protection commitments are achieved and implemented. This will include strategies in relation to:			
– communication	Y	27.4	Chapter 27A
– continuous improvement	Y	27.4	Chapter 27A
– environmental auditing	Y	27.4	Chapter 27A
– monitoring	Y	27.4	Chapter 27A
– reporting	Y	27.4	Chapter 27A
– staff training	Y	27.4	Chapter 27A
– a decommissioning program for land proposed to be disturbed under each relevant aspect of the project.	Y	27.3.6	Chapter 27A
8 Conclusions and recommendations			
The EIS should make conclusions and recommendations with respect to the project based on the studies presented, the EMP and conformity of the project with legislative and policy requirements.	Y	In each chapter	In each chapter
9 References			
All references consulted should be presented in the EIS in a recognised format.	Y	In each chapter	In each chapter
10 Recommended appendices			
10.1 Final TOR for this EIS			
A copy of the final TOR should be included in the EIS. A summary cross-referencing specific items of the Terms of Reference to the relevant section of the EIS should also be provided.	Y	Appendix 1-3-V1.4	Appendix 1-3-SV1.4
10.2 Development approvals			
A list of the development approvals required by the project should be presented.	Y	Appendix 3-1-V1.4	Appendix 3-1-SV1.4
10.3 EPBC report			
A report addressing matters of NES and potential impacts of the project is recommended.	Y	Attachment J of Technical Report TR 17A-1-V1.5	
10.4 Consultation report			
A list of advisory agencies should be provided in a summary consultation report, which should also list the federal, state and local government agencies consulted, and the individuals and groups of stakeholders consulted. A summary of the issues raised by these groups, and the means by which the issues have been addressed, should be provided in the text of the EIS.	Y	See the Community Consultation Technical Report of TR 4-1-V1.5	
The EIS should summarise the results of the community consultation program, providing a summary of the groups and individuals consulted, the issues raised, and the means by which the issues were addressed. The discussion should include the methodology used in the community consultation program including criteria for identifying stakeholders and the communication methods used.	Y	Chapter 4	
Information about identifying affected parties (as defined by the EPBC Act) and interested and/or affected persons (as defined by the EP Act) should be included.	Y	Section 3.1 of Community Consultation Technical Report in TR 4-1-V1.5	
10.5 Study team			
The qualifications and experience of the study team and specialist sub-consultants should be provided.	Y	Appendix 1-4-V1.4	Appendix 1-4-SV1.4
10.6 Glossary of terms			
A glossary of technical terms and acronyms should be provided.	Y	In the Glossary of V1.2	
10.7 Specialist studies			
All reports generated on specialist studies undertaken as part of the EIS are to be included as appendices. These may include:			
• flora and fauna studies including the subregional analysis of representativeness and adequacy of protection for the terrestrial/riparian vegetation communities and their component flora and fauna taxa within the affected areas	Y	Terrestrial and Aquatic Ecology Technical Reports, see TR 17A-1-V1.5 and TR 17B-1-V1.5	Terrestrial and Aquatic Ecology Addendums to Technical Reports, see STR 17A-1-SV1.5 and STR 17B-1-SV1.5
• an integrated assessment of relative biodiversity/conservation values, based on the methodology outlined in EP Act	Y	Terrestrial and Aquatic Ecology Technical Reports, see TR 17A-1-V1.5 and TR 17B-1-V1.5	Terrestrial and Aquatic Ecology Addendums to Technical Reports, see STR 17A-1-SV1.5 and STR 17B-1-SV1.5
• air pollution, noise and vibration	Y	See TRs 13-1-V1.5, 15-1-V1.5 and 16-1-V1.5	STRs 13-1-SV1.5, 15-1-SV1.5 and 16-1-SV1.5
• waterway hydrology	Y	See TRs 11-2-V1.5 and 11-4-V1.5	STR 11-1-SV1.5
• groundwater	Y	See TR 10-1-V1.5	
• geology	Y	See TR 9-1-V1.5	STR 9-1-SV1.5
• economic studies and/or cost-benefit analyses	Y	See TR 22-1-V1.5	STR 22-1-SV1.5 and STR 22-2-SV1.5
• hazard and risk studies	Y	See Chapter 23	
• land use and land capability studies.	Y	See Chapter 8, TR 8-1-V1.5, and TR 9-1-V1.5	STR 9-1-SV1.5
10.8 Corporate environmental policy			
The proponent should attach a copy of its corporate environmental policy and planning framework document.	Y	See Appendix 1-1-V1.5	
10.9 List of proponent commitments			
A list of all commitments made by the proponent in the EIS should be provided together with a reference to the relevant section in the report.	Y	See Chapter 28	Chapter 28

APPENDIX 1-4-SV1.4

PERSONNEL PREPARING THE SUPPLEMENTARY EIS

APPENDIX 1-4-SV1.4

PERSONNEL PREPARING THE SUPPLEMENTARY EIS

The Wandoan Coal Project Supplementary Environmental Impact Statement (EIS) for Volumes 1 and 2 has been compiled by Parsons Brinckerhoff Australia and various specialists.

Table A1-1 lists the relevant Supplementary EIS Chapter, team members and reviewers involved in preparing each chapter and relevant technical report.

Table A1-1: Supplementary EIS Personnel

Chapter and relevant technical report	Team Member	Review
1 – Introduction	Helen D'Arcy (PB)	Brian French (PB)
2 – Project Need and Alternatives	Helen D'Arcy (PB)	Brian French (PB)
3 – Project Approvals	Shane Spargo (PB)	Helen D'Arcy (PB)
4 – Public Consultation	Sara Parrott (XCQ)	Rob Thatcher (Thatcher Mining Services)
5 – Project Construction	Helen D'Arcy (PB)	Brian French (PB) Rob Thatcher (Thatcher Mining Services) Steve Bridger (XCQ)
6 – Project Operations	Helen D'Arcy (PB) Ross Haupt (Xenith) Joel May (XCQ)	Rob Thatcher (Thatcher Mining Services) Steve Bridger (XCQ)
7 – Climate	Olivia White (PB)	Helen D'Arcy (PB)
8 – Land Use	Olivia White (PB)	Helen D'Arcy (PB)
9 – Geology, Mineral Resources, Overburden, and Soils	Olivia White (PB)	Joe Major (PB) Helen D'Arcy (PB)
10 – Groundwater	Mark Stewart (URS) Muller Retief (PB)	Joel May (XCQ) Allens Arthur Robertson Helen D'Arcy (PB)
11 – Water Supply & Management	Michael Batchelor (WRM) Martin Jacobs (PB) Sanja Oldridge (PB) Martina Reichstetter (PB) Helen D'Arcy (PB) Sharon Fong (PB) Eric Lam (PB) Adam Anderson (PB)	Michael Batchelor (WRM) Helen D'Arcy (PB) Eric Lam (PB) Phil Selmes (PB) Sharon Fong (PB) Mohand Amghar (PB)
12 – Transportation	Olivia White (PB)	Helen D'Arcy (PB)
13 – Air Quality	Andrew Wiebe (Katestone Environmental)	Simon Welchman (Katestone Environmental) Helen D'Arcy (PB) Allens Arthur Robertson Roger Drew (Toxicos)
14 – Greenhouse Gases and Climate Change	Darlene Heuff (URS)	Joel May (XCQ) Allens Arthur Robertson
15 – Noise	Radek Kochanowski (Aurecon) Olivia White (PB)	Neil McKenzie (Aurecon) Allens Arthur Robertson Helen D'Arcy (PB)

Chapter and relevant technical report	Team Member	Review
16 – Vibration	Andrew Scott (Scott Consulting Services Pty Ltd)	Helen D'Arcy (PB)
17 – Ecology	*Terrestrial* Ben Lewis (Lewis Ecological Surveys) Chris Hansen (Place Environmental) Lukas Clews (PB) Sean Niemeijer (PB) Martin Predavec (PB) Paul Cannon (PB) *Aquatic* Lauren Thorburn (frc environmental) Conor Jones (frc environmental) Tom Napier-Munn (frc environmental) S Walker (frc environmental) Helen D'Arcy (PB) Paul Cannon (PB)	*Terrestrial* Martin Predavec (PB) Joel May (XCQ) Helen D'Arcy (PB) *Aquatic* John Thorogood (frc environmental) Helen D'Arcy (PB)
18 – Waste Management	Paul Cannon (PB)	Helen D'Arcy (PB)
19 – Visual Amenity	John van Pelt (Integral) Olivia White (PB)	Helen D'Arcy (PB)
20 – Cultural Heritage	*Indigenous* Nicholas Bultreys (Bilyana Consultancy Services Allens Arthur Robertson *Non-Indigenous* Theresa Bonhomme (Bonhomme Craib & Associates) Jane Craib (Bonhomme Craib & Associates)	*Indigenous* Allens Arthur Robertson *Non-Indigenous* John Craib (Bonhomme Craib & Associates) Helen D'Arcy (PB)
21 – Social	Sara Parrott (XCQ)	Rob Thatcher (Thatcher Mining Services)
22 – Economics	Daryle Belford (Brennan Mayne Agribusiness) Doug Sands (Brennan Mayne Agribusiness) Olivia White (PB) Jason Tok (PB)	Neville Crook (Brennan Mayne Agribusiness) Brian French (PB) Joel May (XCQ)
23 – Hazard and Risk	Olivia White (PB)	Helen D'Arcy (PB)
24 – Health and Safety	Olivia White (PB)	Helen D'Arcy (PB)
25 – Decommissioning	Olivia White (PB) Joel May (XCQ)	Helen D'Arcy (PB) Rob Thatcher (Thatcher Mining Services)
26 – Cumulative Impacts	Helen D'Arcy (PB)	Brian French (PB)
27A – Draft Environmental Management Plan (Mining)	Suzanne Westgate (Allens Arthur Robertson)	Rob Thatcher (Thatcher Mining Services) Joel May (XCQ) Ian Hodgetts (Allens Arthur Robertson)

Chapter and relevant technical report	Team Member	Review
27C – Draft Environmental Management Plan (Potable water)	Olivia White (PB)	Gavin Wray (PB)
27D – Draft Environmental Management Plan (WWTP)	Olivia White (PB)	Gavin Wray (PB)
28 – Summary of Commitments and Mitigation Measures	Joel May (XCQ) Suzanne Westgate (Allens Arthur Robertson)	Rob Thatcher (Thatcher Mining Services)
Volume 2 – Addendum to Wandoan Coal Project Route Selection Report – Southern CSM Water Supply Pipeline	Anjeanette Schimpf (PB)	Allison Rushton (PB) Helen D'Arcy (PB)
GIS, Drafting and Visualisation Support	Dominic James (PB) Tammy Duffy (PB) Paul Callaghan (Carteform) Mike Sparrow (PB) Mitch Raymont (PB) Tony Kaihea (PB) Lin Guifen (PB) Erin Ibbertson (PB) Stephen Hart (PB)	Helen D'Arcy (PB) Martin Predavec (PB) Olivia White (PB) Michael Batchelor (PB) Ross Haupt (Xenith)
Administration Support	Natalie Fisher (PB) Cathy Herve (PB) Isabelle Cooke (PB) Diane Pearse (PB) Sue Greenall (PB)	Helen D'Arcy (PB) Brian French (PB)

Below are listed the key members of the Supplementary EIS Team:

Wandoan Joint Venture

- Rob Thatcher – Consultant Wandoan Project Manager.

Xstrata Coal Queensland

- Steve Bridger – Executive General Manager Wandoan Project
- Bill McKinstrey – Project Director.
- Joel May – Senior Advisor Environment and Community.
- Alanna Howard - Environment and Community Advisor.
- Sara Parrott – Community Relations Manager.
- Adrianna Webster – Community Relations Officer.
- Naomi Golden – Project Liaison Officer.

Parsons Brinckerhoff

- Brian French – Project Manager.
- Helen D'Arcy – EIS Co-ordinator.
- Paul Cannon – Senior Environmental Engineer.
- Olivia White – Environmental Scientist.

URS

- Mark Stewart.

Allens Arthur Robertson

- Ian Hodgetts – Legal review.
- Suzanne Westgate – Legal review.
- Phillip Murray – Legal review.

APPENDIX 1-5-SV1.4

SUBMISSIONS REGISTER

Appendix 1-5-SV1.4 Supplementary EIS Submissions Register

Submission Number	Submitter	Submission	Response
1-1	Dept of Housing (now Department of Communities)	I refer to correspondence from your agency dated 5 December 2008 inviting the Department of Housing to participate as an Advisory Agent in an Environmental Impact Statement for the Wandoan Coal Project. The department's interest in this project relates to potential adverse impacts on housing affordability and social amenity in the township of Wandoan and surrounding regions. The department is also concerned that housing issues in the Surat Basin are mitigated and managed in view of a possible increase in resources activity similar to that which is occurring in the Bowen Basin and has resulted in some degree of housing stress. The department has reviewed the Statement and considers it has mitigated and managed housing issues and social amenity in a satisfactory manner. For example, the proponent has responded to the issues raised by the department in the Draft Terms of Reference. In particular, the provision of a workers' accommodation camp, in conjunction with a 24% fall- off in population during the previous five years and subsequent high vacancy rates in Wandoan (30%) and Taroom (27%), which it is considered will assist in alleviating housing and social stress in the region.	Noted
1-1	Dept of Housing (now Department of Communities)	I am also pleased to confirm the department will continue to participate as an advisory agency to provide advice on potential adverse impacts and mitigation strategies that may arise in the future. For further assistance, you may contact Mr Mark Wall, Acting Director, Private Housing Support, on 322 76223.	Noted
2-1	[redacted]	As holders of the above licence which permits us to harvest water from Juandah Creek we write with concern over the proposal to take a large amount of water from an upstream tributary of this watercourse. We purchased this licence with the property some 3 years ago and placed significant value on this asset value which we are concerned will be affected detrimentally by your project. We have read the Environmental Impact Statement for the Wandoan Project and whilst your figures would indicate a negligible change in our available flow rates we are acutely aware that our licence being I believe the most upstream in this catchment will suffer substantial depreciation due to your proposal. We would think it only reasonable that Xstrata like any other user of overland water in Queensland operate using existing licences thus protecting the value of these assets. We trust this letter sufficiently outlays our concerns and await your response.	Response: Refer to Supplementary EIS Volume 1, sections 11.4.3 and 11.4.4.
3-1		My submission to the coordinator general on the Wandoan Coal Project E.I.S. is with regard to the coal dump facility known as the Mud Creek Dump in the North-east of M.L.A. 50229. As shown on some maps this facility is planned to be directly adjacent to the junction of the remaining Booral and Grosmont Roads. The authors of the E.I.S. seem to be totally unaware that this is a major school bus stop where the Grosmont feeder bus meets the Wandoan School Bus at its terminus. This places the dump facility and its associated haul trucks, heavy machinery, conveyor belts and dust pollution directly beside an area where school children are deposited and picked up every school thy. As a mother, I regard the safety and health of our children as paramount and was completely dumbfounded to find no mention of this facilities impact on the bus stop in the E.I.S.	Response: Refer to Supplementary EIS Volume 1, sections 12.3.1, 12.5.3 & 24.6.4.
3-1		As the School children are at times unattended by an adult while waiting for either bus, the risk to children from machinery directly adjacent is in my mind, unacceptable and I hope the coordinator general can also see fit to put safety and welfare first. My simple solution to this problem would be to move this dump facility and its infrastructure some distance south so as not to interfere with Xstrata's mining operation but to put it well out of harms way of our children.	Response: Refer to Supplementary EIS, Volume 1, sections 6.6.2 and 12.5.3
4-1		This submission is concerning the absence of any modelling of environmental impacts on the residence and accompanying farm infrastructure on our lot 52/FT830 known as 'Sylvan Hill'. The location is shown on Figure 8-3-V1.3. The fact that lot 52/FT830 was to be taken out of the lease area when the boundaries were finalized was conveyed to us verbally early 2008 by Xstrata's (sic) Project Manager Mr Rob Thatcher. This was later confirmed in writing on it February 2008. (see copy attached). Therefore as the residence and buildings will remain insitu, but no maps even show the buildings and no modelling has been done using the homestead as a receptor for:-	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
4-1		1. Dust from Mud Creek coal dump and associated haul roads and conveyors. The proposed dump is approximately 900metres south of residence see Figure 6-7- VI .3 which will be affected by prevailing winter southerly winds and summer storm fronts carrying dust. Dust levels are shown in Figures 13-10 to 13-25. 2. Noise from heavy machinery at work on dump station. Noise levels are shown in Figures 15-5 to 15-18. 3. Run off water from coal dump. The Mud Creek dump station is situated at the top of the water shed which ultimately drains into an earth dam on Lot 52/FT830 see (Figure 6-7-VI.3 and Figure 11-16-V1.3) attached is a copy of Figure 6-7V1.3 on which I have marked approximate locations of the boundary of Lot 52 and the dam. This dam is the domestic supply to the house and is the main stock watering facility. As stated in the E.I.S. coal dump run off water is the most polluted across the whole development and the slightest failure in containment would be catastrophic to house, stock and aquatic life in dam.	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1 and 11.5.4.
4-1		4. Vibration, blast, dust and noise from nearby pits. The vibration assessment in the Technical report 16-1-VI.5 does not cover our residence because it is not listed as a sensitive receptor. Far be it for me to say but in my mind one solution would be to move the dump station and attendant machinery approximately 600metres south. This would not interfere with the overall mine plan and would place the facility over the brow of the hill out of sight and with drainage water emptying back into Xstrata (sic) owned land see Figure 6-7V1.3. Also impact studies should be further conducted to determine affects on the residence of nearby coal pits.	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1 and 11.6.2.
5-1		This submission to the Coordinator General on the Wandoan Coal E.I.S. is regarding the section ,"public road and road relocation" and is found in Vol 1 book 2 C 06 project page 23. The Wandoan Joint Venturers plan to close the Grosmont Road from where it intersects the Booral Road southward. This will mean the only access to any town (Wandoan) in times of flood will be closed to all residents to the N.W. of the M.L.A. The road planned to be closed affords the only road with high level bridges, this leaves alternate roads, crossing Juandah Creek over extremely low level bridges. These bridges can be covered by up to 8 metres of water for 5 to 6 days at a time which will completely isolate a large number of people. In the event of medical emergency we find this is totally unacceptable.	Response: Refer to Supplementary EIS Volume 1, Chapter 6, section 6.6.2.
5-1		The authors of the E.I.S. have taken no account of this impact and have made no prevision to rectify this situation. As the road through M.L.A. 50229 will be closed for a lengthy period and being mindful of the safety and welfare of residents in this area, surely the joint venture partners should at least commit to raising the bridge height over Juandah Creek on the Booral Road. This appears to be the only viable response.	Response: Refer to Supplementary EIS Volume 1, Chapter 6, section 6.6.2.
6-1		Wandoan has a reputation as a tidy town, with pleasant gardens and parks. There are a wide variety of trees and plants in the street scape and in private gardens. These are not only pleasing to the eye, but modify the extremes of temperature in both winner and summer. Many retired people in the town have developed gardens which add greatly to the view of the town. As water supply is always a problem a large proportion of the populations have purchased and installed water tanks, for personal use and to supplement the town supply for the gardens.	Noted.
6-2		We are deeply concerned that the establishment of mine pits close to the town, especially the Frank Creek Pit, but also the Leichhardt Pit, and other Pits which may be developed south of the town, will over a period of time lead to a layer of dust over the town. It is felt that even very small amount of coal dust, coupled with extreme temperatures will 'cook' foliage and lead to stunned growth or even death of plants and trees. his would result in a bleak place to encourage people to live.	Refer to Supplementary EIS, Volume 1, section 6.3.2 and Chapter 17A Terrestrial Ecology section 17A.6.
6-3		As coal dust is not easily removed, even with modem removal of the first flush of water from the roof, the tank water could be contaminated and thousands of dollars worth of water tanks made useless. This would also lead a much higher level of water use, which does not appear to be factored into the water supply in the EIS.	Response: Refer to Supplementary EIS Volume 1, Chapter 13 Air Quality, section 13.3.2, 13.5.3 and 13.6.2

Submission Number	Submitter	Submission	Response
7-1	WPSQ Upper Dawson	On behalf of the above branch of WPSQ, we would like to make the following submission. The principle of degrading productive land by open-cut MINING for short term gains (30 years) as against continuous HARVESTING for food is contrary to all common sense and naturally we are unhappy with the proposal and question its need. This problem will become more obvious over time as climate change occurs. When the whole environmental considerations for the proposed development as per the EIS are considered, our branch has the most, but not the only, concern with the water issues in all their different ramifications. We will deal with these first.	Response: Refer to Supplementary EIS Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8, and 22.5.
7-2	WPSQ Upper Dawson	With Santos and Fairfield gas field, Origin and Spring Gully gas field plus this large and disruptive coal mine all on the head waters of the Dawson, we can see the river being severely degraded if we are not careful with the planning.	Response: Refer to Supplementary EIS Volume 4, sections 12.2.3
7-2	WPSQ Upper Dawson	Our chief water concerns are not necessarily in order of priority. 1. We are strongly of the opinion that the raising of the Glebe Weir coupled with the pipeline to the mine would result in the most environmental damage for the following reasons: (a) There would not he enough high priority water to supply the mine and we are doubtful that it could be purchased from present holders. Therefore we could end up with two water schemes. (b) It is problematical if the boggomoss snail and their habitat could be saved with the proposed height. (c) The proposed levee bank on the flood plain could lead to disaster with a high and sudden rise in the river. (d) Soakage from the storage could alter the cluster of boggomoss just below the proposed levee. (e) The environmental impact on the riverine corridor by the present weir was destructive enough and it is only just starting to become useful without having to start again.	Response: Refer to Supplementary EIS Volume 4, sections 12.1.1, 8.2 and 12.2.3
7-2	WPSQ Upper Dawson	(f) We believe that a fish ladder and multi-stage off take should not have to depend on the raising of the weir. They are needed regardless.	Response: Refer to Supplementary EIS Volume 4, section 13.2.3
7-2	WPSQ Upper Dawson	(g) The vast amounts of Gas Seam water that are, and will be in the future, brought to the surface, have to be disposed of and we feel it would be more advantageous to use this water rather than waste the Nation's most precious commodity (clean river water) to wash coal.	Response: Refer to EIS and Supplementary EIS Volume 1, section 11.4.4.
7-3	WPSQ Upper Dawson	(h) The proposed pipeline is planned to largely follow the Nathan Road Reserve and Stock Route. It should be part of a common corridor with any Railway and Gas Pipe lines etc, being kept away from the standing timber on the Road Reserve.	Response: Refer to Supplementary EIS Volume 4, section 9.2.2
7-4	WPSQ Upper Dawson	2. The Southern and Western Water Schemes can be 'lived with'; but we would prefer the Western one because: (a) It is the one with the least timber clearing needed and could be constructed with the minimum of environmental damage. The crossing of Eurombah Creek would have to be carefully planned and executed.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
7-5	WPSQ Upper Dawson	(b) In the Southern Scheme, the gas seam water has to leave the Condamine Catchment and come over the range into the Dawson Catchment. We do not believe that water should be transferred from one catchment to another. (c) The Southern Scheme would also require more vegetation clearing that could cause environmental harm to endangered or of concern areas. (d) It is probably not an issue for this EIS, but one of our big concerns for the health of our Dawson Catchment, is the safe disposal of the toxic salts that are taken out of the gas seam water in the RO process.	Response: Refer to Supplementary EIS Volume 1, sections 9.6.3 and 11.4.4, and Volume 2, sections 6.2.2 and 17A.4.1.
7-6	WPSQ Upper Dawson	3. It is Imperative that all water on the site be treated so that water that is used for dust suppression and construction does not leave contaminates to leach out of the soils into the Juandah Catchment. A lot will build up over 30 years.	Response: Refer to Supplementary EIS, Volume 1, sections 9.6.3, and 11.5.5.
7-7	WPSQ Upper Dawson	4. The diversion of both Wooleebee and Mud Creeks need looking at more closely and we would suggest a separate EIS for them. If this is not possible, then a lot more planning needs to be done on this issue. They both carry large volumes of water at times and have extensive flood plains. Confining them to a narrower channel, as we believe the present plan shows, could lead to flooding of the mine pits with the resultant problems that occurred last year at the Ensham (sic) Mine. We are also concerned at the destruction of the riparian tree corridor that would be necessary. This would leave a long gap in the corridor. It takes at least 40 years for a newly planted riverine corridor to become really useful with habitat trees.	Response: Refer to Supplementary EIS Volume 1, sections 11.2.3, and 17A.5.2.
7-8	WPSQ Upper Dawson	Our other concerns that we feel should be addressed are:- 1. Clearing of vegetation on the site and then rehabilitation and proposed offsets. We see it as imperative that a re-vegetation plan incorporating native species in environmental corridors be drawn up before work commences and implemented as work progresses Then when the mine site is decommissioned in 30 years time, the area will be a network of corridors and an example of good environmental planning. This exercise and its cost should be part of the management of the site and not offset expenditure. Offsets need much thought and we feel, due to the nature of the land being cleared, it could be more beneficial if environmental resources were put into some really important biological areas in close proximity to the mine. We would suggest that further discussion with Local people and our branch of the WPSQ could be an advantage in exploring options.	Response: Refer to Supplementary EIS Volume 1, sections 17A.5.2 and 17A.6.1.
7-9	WPSQ Upper Dawson	A considerable amount of public funding for Landcare projects has been spent in the mine area. These have been designed to enhance the health of the land while supporting productivity. A suitable policy for replacing these projects should be drawn up in consultation with the Taroom Shire Landcare Group Inc. and adequately funded.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2.
7-10	WPSQ Upper Dawson	2. Weeds are an ever present problem and it is imperative that they be controlled within the area. There are two relatively small patches of Parthenium weed on the mine site and the company should isolate and eradicate this weed as a priority. This area should be inspected by the Shire Land Ranger at least every three months until he is satisfied the weed is no longer there. This weed was vigorously controlled by the Taroom Shire Council and landholders at considerable expense and under no circumstances must it be allowed to proliferate and contaminate all the downstream areas. Wild pigs could also present a problem especially around the proposed wetland and plans for their control should be included.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2.
7-11	WPSQ Upper Dawson	3. After a wet season and with no stocking the build-up of fire fuel can be considerable and extremely dangerous for wildfires in the following summer. We question whether consideration of this potential problem has been sufficiently addressed. It would be disastrous if any revegetation was wiped out by fire. A fire management plan should be incorporated for the area in conjunction with surrounding bush fire brigades.	Response: Refer to Supplementary EIS Volume 1, section 7.8.
7-12	WPSQ Upper Dawson	4. The shifting of stock routes is always of concern as they are often the only original native timber left in an area. However, provided the mining lease is planted to corridors as suggested in 1, this problem should be mitigated. It is strongly suggested that any new stock route be at least 150 metes wide to allow for a suitable corridor of bush to be rehabilitated on the area.	Response: Refer to Supplementary EIS, sections 8.6.6 and 17A.5.2
7-13	WPSQ Upper Dawson	5. The whole dust and acid rain problem naturally worries us and it is imperative that all dust and gas suppression be vigorously enforced.	Response: Refer to Supplementary EIS Volume 1, section 13.6.
7-14	WPSQ Upper Dawson	6. Possibly, the most important document to come out of the whole process will be the Environmental Management Plan. If this (EMP) is inadequate, is not enforced, is not subject to continuous official and public scrutiny, or be a living document that can be changed as circumstances change then so much of the original planning would not deliver the outcome for which this EIS is striving. This public scrutiny by experienced people is really important because this is a project with large ramifications for our environment, if we are not to be left with a mess then we must be extremely vigilant and be prepared to act quickly and decisively when environmentally necessary.	Refer to Supplementary EIS Volume 1, Chapter 1 Introduction, section 1.5.1, and Chapter 27A Draft Environmental Management Plan (mining)
7-15	WPSQ Upper Dawson	7. This is not a long or comprehensive submission, but we believe it covers our major environmental concerns. We would also like to congratulate all concerned, especially the researchers, on these comprehensive EIS documents. While not agreeing with all the conclusions or contents, the quality of the finished product is excellent, the research well done and it will be an invaluable set of references for the future of the project. 8. When we look at this whole proposal as land managers, conservationists and HARVESTERS (sic) of our land's resources, the following wise old saying springs to mind "We do not inherent the land from our parents, we borrow it from the next generation."	Noted

Submission Number	Submitter	Submission	Response
8-1	[redacted]	Concern: Volume 1 Book 1.2 21-11 The social impact — The extremely large number of properties and families that will ho dislocated by the WJV Project will be of concern to community groups and schools. WJV have stated some affected landholders may relocate locally but the reality is that these properties and families are lost to the community forever. In the initial years of the project only a limited number of employees may relocate to the area and take on community involvement therefore leaving a void for several years which may have a detrimental effect. Suggested solution: To minimise the effect WJV need to seriously consider generous lease back agreements with the previous landholders where possible in an attempt to encourage a staggered exit over some years. As the mining lease is for an open cut coal mine and will take some years to expand into all areas there is a great opportunity for some families to remain on their original property until it is needed for mining activities therefore lessening the effect on the local community. Another benefit would be the property market would not be saturated with buyers at one time.	Response: Refer to Supplementary EIS, Volume 1, section 6.10
8-2		Concern: Volume I Book 1.2 9-24 - WJV state the use of CSM water for dust suppression is unlikely to have a significant impact on salinity of soils surrounding roadways (up to 4,000 mg/L total dissolved solids) Suggested solution: This causes concern as dust suppression is most likely to be needed every day of the mining activity. WJV admit that the proposed 400 mega litre raw water storage dam may have to be lined thus admitting to water quality concerns. The use of captured overland flow water would be a far safer option for dust suppression resulting in less contaminated land.	Response: refer to Supplementary EIS, Volume 1, sections 9.6.3 11.4.4 and 11.6.2.
8-3		Concern: Volume 1 Book 1.2 17A-6 Table 17A-2 Declared Weed Plains Recorded African Box Thorn and Saffron Thistle were not recorded. Suggested solution: These two P2 weeds were not identified in the studies and are located adjacent to the MIA within the study area and are on county WJV wish to acquire.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2
8-4		Concern: Volume I Book 1.2 17A-19 Development of a weed management plan (parthenium a weed of national significance, mother of millions, African box thorn, saffron thistle and others). Suggested solution: Weed Management Plan- Identified weeds in particular Parthenium, need to be controlled within the MLA and also additional country WJV will own. Because of the size of the MLA plus additional areas a dedicated weeds management officer would need to be employed.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2.
9-1	Department of Mines and Energy (now Department of Employment, Economic Development and Innovation, Queensland Mines and Energy)	The industry Development business group of the Department of Mines and Energy considers that the proponent for the Wandoan Coal Mine project has not satisfactorily addressed the matters relating to resource identification, resource utilisation/recovery and potential resource sterilisation in the project Environmental Impact Statement as required by the Terms of Reference - (Sections 3.2.2.1 and 3.2.2.2). Based on the department's knowledge of the coal deposits which comprise the Wandoan group of deposits (now covered by Mineral Development Licences (MDL5) 221, 222 and 223, it is apparent that much of the area within the three mining lease applications required for the project, is underlain by identified shallow resources of coal.	Information has been provided directly to the Department Employment, Economic Development and Innovation (formerly the Department of Mines and Energy).
9-1	Department of Mines and Energy (now Department of Employment, Economic Development and Innovation, Queensland Mines and Energy)	It is evident therefore that a large proportion of the area within the proposed mining leases where most of the mine infrastructure is to be constructed for the project (eg rail spur and loop, the mine industrial area and the overland conveyor and dump stations etc) will be located over relatively shallow coal seams and that in all likelihood, some of this coal will have been included in the estimated resource base for the Wandoan group of deposits.	Information has been provided directly to the Department Employment, Economic Development and Innovation (formerly the Department of Mines and Energy).
9-1	Department of Mines and Energy (now Department of Employment, Economic Development and Innovation, Queensland Mines and Energy)	These are: 1. No coal seams present 2. Coal is present - with full (mining) recovery of the identified coal seams and resources planned 3. Coal is present - with only partial (mining) recovery of the identified coal seams and resources planned 4. Coal is present - with no plans for mining and no plans to impact either directly or indirectly on the coal seams/resources through the placement of infrastructure, or other man-made structures, through isolation/severance, or some other form of activity. 5. Coal is present - with no plans for mining but plans to impact either directly or indirectly on the coal seams/resources through the placement of infrastructure, or other man-made structures, through isolation/severance, or some other form of activity.	Information has been provided directly to the Department Employment, Economic Development and Innovation (formerly the Department of Mines and Energy).
9-1	Department of Mines and Energy (now Department of Employment, Economic Development and Innovation, Queensland Mines and Energy)	The analysis requires the proponent to clearly identify these zones/domains within the project area, focusing in particular on domains 3 and 5 — i.e. where only partial recovery of identified coal seams/resources is planned or where the identified coal seams/resources will be impacted upon in some way either directly or indirectly by the proposed activities and infrastructure.	Information has been provided directly to the Department Employment, Economic Development and Innovation (formerly the Department of Mines and Energy).
9-1	Department of Mines and Energy (now Department of Employment, Economic Development and Innovation, Queensland Mines and Energy)	Where relevant, the proponent should comment on each of these domains, focusing particularly on the rationale for deciding to build man-made structures over coal seams and on deciding to leave other parts of the identified coal resource unmined, especially in those cases where this may sterilise the coal left behind (eg by the placement of spoil) or perhaps marginalise the future recovery of this coal - for example through isolation/severance from the body of the identified resource. These comments should be supported by summary information about each domain that includes: - the amount of raw coal insitu estimated within each domain - perhaps grouped in this instance on a seam group basis, given the multiple and variable nature of the coal seams/plies within the Walloon Coal Measures coal measures, together with an overview about the coal seam geology, and quality of this coal - eg thickness range of the seam/seam groups, typical coal quality, depth range (within the domain) below surface and/or cumulative strip ratios to the seam groups etc).	Information has been provided directly to the Department Employment, Economic Development and Innovation (formerly the Department of Mines and Energy).
9-1	Department of Mines and Energy (now Department of Employment, Economic Development and Innovation, Queensland Mines and Energy)	The EIS in its current form, while providing some very general information about the coal geology of the Wandoan group of coal deposits and a basic outline of the identified coal resources within the Wandoan project area (Sections 9.3.2 and 9.3.4 respectively - pages 9-6 to 9-10 inclusive - Book 1.2 - Volume 1), the document does not provide this information in a sufficiently detailed manner (extent, quantities, quality and defining parameters etc) that allows the department to undertake an assessment of the resource impacts of the project. This analysis should also extend to the potential resource impacts of each of the three possible water supply alternatives for the proposed mine. However the analysis of the potential resource impacts of the proposed Surat Basin Rail Link project that forms an integral part of bringing this coal project into production, will be addressed separately as part of the EIS process for that element of the project - itself declared a 'significant project' by the Co-ordinator General under the provisions of the State Development and Public Works Organisation Act 1971.	Information has been provided directly to the Department Employment, Economic Development and Innovation (formerly the Department of Mines and Energy).
9-1	Department of Mines and Energy (now Department of Employment, Economic Development and Innovation, Queensland Mines and Energy)	Subsequent to the briefing to Advisory Bodies by the proponent's representatives on Wednesday 17th December 2008 to outline the findings of the EIS, representatives of this Department have met twice with them and their geological consultant (Friday 19th December 2008 and a site visit to Wandoan on Tuesday 20th January 2009) to discuss these requirements. The proponent has undertaken to provide the necessary information and present the above-mentioned 'domain' analysis of the potential resource impacts of the project and its infrastructure in the supplementary to the EIS. Much of this same information will be required in order for the proponent to prepare the Initial Development Plan for the project - a requirement of the Mineral Resources Act 1989 (under the coal seam gas provisions - Part 7AA), and a document which must be approved by the Minister for Mines and Energy before the mining leases can be granted.	Information has been provided directly to the Department Employment, Economic Development and Innovation (formerly the Department of Mines and Energy).
10-1	[redacted]	As affected landholders located near the Wandoan Coal Project we would like to list the following submissions following the issue of the Environmental Impact Statement. 1. The flow of creek water along Mud Creek through our property "Grosmont" will be reduced significantly due the mine at MLA 50229. This flow of water fills the holes in the creek bed and is used for watering of stock.	Response: Refer to Supplementary EIS Volume 1, sections 11.5.2 and 11.6.2.
10-2		2. Our bore, Licence Number 15831 N for the purpose of stockwatering, will be affected by the mine.	Response: Refer to Supplementary EIS, Section 10.5.1
10-3		3. Lights from the mine will be a great inconvenience at night. The end of our house where two bedrooms are situated, face the cross roads of Booral and Grosmont Roads. Lights can be seen from vehicles turning at night. This is where we believe a dump site is to be located for the conveyor.	Response: Refer to Supplementary EIS Volume 1, section 19.6.3

Submission Number	Submitter	Submission	Response
10-4	[redacted]	4. Dust from the mine is of great concern to the quality of cattle feed and to our health. The winds blow from a south westerly direction during winter. "Grosmont" is situated in a hollow and dust settles in hollows. Our quality of drinking water collected in tanks will be reduced.	Response: Refer to Supplementary EIS Volume 1, sections 13.5.3 and 13.6.2.
10-5		5. When we have significant rainfall the road into Wandoan township is cut at the creek crossing on Booral [sic] Road. We access the Grosmont Road through to the Jackson Road into Wandoan township. This will be closed due to the mine operation.	Response: Refer to Supplementary EIS Volume 1, Chapter 6, section 6.6.2.
10-6		6. Due to the closure of the western end of Grosmont Road, we will also loose our "short-cut" to travel to Roma to attend cattle sales, shopping, dentist and sport etc. The new route will increase travel time and kilometres considerably.	Response: Refer to Supplementary EIS Volume 1, Chapter 6, section 6.6.2.
10-7		7. Noise is of concern especially at night time when sounds travel further.	Response: Refer to Supplementary EIS, Volume 1, Chapter 15 Noise, section 15.5.3
11-1	Friends of the Earth Brisbane	We write in regard to the Environmental Impact Statement (E.I.S.) produced in relation to the Wandoan Coal Project by the development proponents; Xstrata Coal Queensland Pty Ltd, ICRA Wandoan Pty Ltd and Sumisho Coal Australia Pty Ltd. The purpose of this submission is to raise the inadequacy of the proponents' E.I.S. in regards to the proposed project's effects on the local and regional environment through the indirect emissions of the full fuel cycle.	Noted
11-2	Friends of the Earth Brisbane	Significantly, the E.I.S. terms of reference do not adequately address the full impact of the indirect greenhouse gas emissions that the development will cause, and we note that due to this, the indirect environmental impacts of the coal that will be mined, transported and shipped have not been addressed within the 12.1.5. In this submission, we outline the key reasons that the Coordinator General must consider climate change effects in the production of a supplementary E.I.S. for the Wandoan Coal Project.	Response: Refer to Supplementary EIS, Chapter 1 Introduction, section 1.2.4, and Chapter 14 Greenhouse Gas and Climate Change, section 14.6.1.
11-3	Friends of the Earth Brisbane	Human induced climate change is an imminent and significant threat to most matters of national environmental significance, including the ecosystems that fall within the purview of this 12.1.5.: • The coal produced as part of the Wandoan Coal Project will inevitably be burnt, thus contributing to climate change. Carbon emissions no know borders, so Australian coal burnt overseas will impact matters of environmental significance just as readily as coal burnt in Australia. This contribution must be considered in the environmental impact assessment of the project. •The greenhouse gas emissions from the coal produced and transported by the proposed project, while alone significant cannot be sensibly considered in isolation from the context of the current rapid expansion of the coal industry in Australia, and particularly in Queensland.	Response: Refer to Supplementary EIS Volume 1, Chapter 17A Terrestrial Ecology, section 17A.4.8, and noted.
11-4	Friends of the Earth Brisbane	We include recommendations on the environmental impact assessment process for this proposed project which will assist in your efforts to protect our environment via the E.I.S. process. We recommend that a supplementary E.I.S. be required from the project proponents that consider the indirect impacts of greenhouse emissions and the cumulative effects of the project. We urge you to take our recommendations into account.	Noted
11-5	Friends of the Earth Brisbane	Climate Change and the consideration of indirect emissions ...decisive action on global emissions are required if the lass of coral-dominated ecosystems is to be avoided.' 1 Human induced climate change is one of the most pressing issues facing Australian society today. The impacts of climate change are now occurring at a faster rate and at lower temperatures than previously predicted. Glacial melt in the world's mountain regions is accelerating. The Arctic's ice cover is retreating more rapidly than estimated by any of the 18 computer models used by the 2007 Intergovernmental Panel on Climate Change (IPCC) assessments, and 30 years ahead of the mean model forecast2. Warming trends in a third of the world's large ocean regions are two to four times greater than the previously reported averages in the recent IPCC report3. Even moderate additional greenhouse emissions are likely to push Earth past critical climate tipping points.	Noted
11-5	Friends of the Earth Brisbane	Climate change is already impacting on matters of national environmental significance and is certain to significantly impact on matters of national environmental significance in the future. The extent and severity of these impacts will be dependent on the level of greenhouse gas emission reductions that are made in the coming years. There is strong scientific evidence of severe impacts on the Great Barrier Reef World Heritage Area (GBRWHA) in coming decades due to climate change. In Hoegh-Guldberg and Hoegh-Guldberg4, Implications of Climate Change for Australia's Great Barrier Reef, the best case scenario for the GBRWHA is recoverable loss if global temperature increases remain below two degrees. Under the worst case scenario, coral populations will collapse by 2100 and the re-establishment of coral reefs will be highly unlikely over the following 200-500 years.	Noted
11-5	Friends of the Earth Brisbane	There is similar strong scientific evidence of severe impacts on the Wet Tropics World Heritage Area (Wet Tropics WHA) in coming decades due to climate change. The Rainforest Cooperative Research Centre, Environmental Crisis: Climate Change and Terrestrial Biodiversity in Queensland, concluded that the likely impacts of climate change on terrestrial biodiversity within the Wet Tropics WHA would be very serious and could be catastrophic under some scenarios. Even moderate levels of warming, well within the range defined by the Intergovernmental Panel on Climate Change (IPCC), have the potential to pose serious threats to biodiversity.	Noted
11-6	Friends of the Earth Brisbane	The Wandoan Project in Context Coal is the leading contributor to greenhouse gas emissions, both in Australia and globally. Australian coal exports alone caused more emissions (625MtCO2-eq)5 than all activities within Australia (5761V1t C02-eq)6 in 2006. Compared to this, the Wandoan Coal Project is not insignificant. With an initial run of mine thermal coal capacity of 30 Mtpa, this project represents an increase in emissions due to coal of approximately 76 MtCO2-eq per annum when used in the production of electricity7. This corresponds to over 13% of Australia's total domestic emissions in 2006, hardly an insignificant figure. The contribution that this project will make to climate change and consequently to environmental impacts on the Wandoan surrounds is difficult to determine, but must at the very least be considered within the E.I.S. when discussing mitigation of the project's impacts.	Response: Refer to Supplementary EIS Volume 1, Chapter 14 Greenhouse Gas and Climate Change, sections 14.6.1, 14.8.3, and 14.9.
11-7	Friends of the Earth Brisbane	Limitations of the Wandoan Coal Project E.I.S. No consideration of the impact of indirect emissions. Section 3.5.2 (Potential impacts and mitigation measures) of the E.I.S. terms of reference is inadequate to successfully protect against negative environmental impacts from the proposed development, ignoring the overt impact that indirect greenhouse gas emissions wilt have on the local and regional ecosystems surrounding the Wandoan township. Following section 75 of the Environmental Protection and Biodiversity Conservation (EPBC) Act regarding the impacts of an action, the assessment of the Wandoan Coal Project must consider the climate change impact and the consequential impacts on matters of environmental significance.	Response: Refer to Supplementary EIS Volume 1, Chapter 17A Terrestrial Ecology, section 17A.4.8.
11-7	Friends of the Earth Brisbane	Precedent for the inclusion of such indirect effects of a development in its environmental impact assessment has been shown in Minister for the Environment and Heritage v Queensland Conservation Council [2004] FCAFC 190 (the Nathan Dam Case), and applied to coal mining by the Victorian Civil and Administrative tribunal.8 Therefore, despite being overlooked within the E.I.S. terms of reference, the inclusion of the effects of indirect emissions from the project must still be considered, outlined and mitigation measures offered.	Response: Refer to Supplementary EIS Volume 1, Chapter 14 Greenhouse Gas and Climate Change, sections 14.6.1, 14.6.2, 14.8.3, and 14.9.
11-8	Friends of the Earth Brisbane	While it may be argued that the emissions from the Wandoan Coal Project alone will not cause significant or measureable effects to our environment the cumulative emissions from coal, and especially the expansion of the coal industry in Queensland, are certainly devastating to matters of environmental significance around the Wandoan region. James Hansen, from the NASA Goddard Institute of Space studies and one of the world's leading climate change scientists, has said that "preservation of (the) climate requires that most remaining fossil fuel carbon is never emitted into the atmosphere"10. Therefore, when considering the Wandoan Coal Project, it is nonsensical to ignore the context of the current unprecedented expansion of the Australian coal industry. The Wandoan Coal Project E.I.S. must therefore consider the cumulative effects of the coal industry expansion within Australia, Queensland, and in particular, the Surat Basin.	Response: Refer to Supplementary EIS Volume 1, Chapter 26 Cumulative Impacts, section 26.3.4.

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11-8	Friends of the Earth Brisbane	Cumulative effect on the Queensland coal industry Assessment of the Wandoan Coal Project's E.I.S. under the EPBC Act (Section 4.03) calls for the consideration of cumulative impacts, where potential project impacts are in addition to existing impacts of other activities, as welt as future developments. This has not been achieved within the current E.I.S., yet is particularly relevant in the case of the Wandoan Coal Project, when considering the Queensland Government's proposal for massive expansion of coal mining and associated infrastructure within the Surat Basin, Despite the threat of severe and devastating changes to our climate, Queensland government plans are to increase coal exports by 85% to 370 Mtpa by 20289, and the Surat Basin, with an estimated 4 billion tonnes of thermal coal, is planned to play a large role in this expansion.	Refer to Supplementary EIS Volume 1, Chapter 14 Greenhouse Gas and Climate Change, sections 14.8.3, 14.9, and 14.9.6, and Chapter 26 Cumulative Impacts, section 26.3.4.
11-9	Friends of the Earth Brisbane	RECOMMENDATIONS The proponents of the Wandoan Coal Project claim that "the majority of the adverse impacts associated with the Project will be mitigated" (Wandoan Coal Project E.I.S. s12.1). However, the main environmental impact of the project — its contribution to human induced climate change - has not received any consideration within the proposed project's E.I.S. We therefore call on the Coordinator General to require a supplementary E.I.S. from the project proponents that considers: -The impacts of indirect greenhouse gas emissions from the Wandoan Coal Project on the local and regional ecosystems, bearing in mind the project's emissions will be released into the global atmosphere that does not recognise national boundaries. -The impact that the cumulative effects of the Wandoan Coal Project will have on local and regional ecosystems, viewed in the context of the expansion of Queensland and Australian coal production, especially within the Surat Basin.	Noted
12-1	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Comments for Wandoan Coal Project- Environmental Impact Statement The Department of Primary Industries and Fisheries would like to thank you for the opportunity to comment on the above mentioned EIS. Our department wishes to advise that no site visits were undertaken, and all comments provided are a result of the documentation provided. Intensive Livestock Environmental Regulation Unit (ILERU) DPI&F has been delegated responsibility for cattle feedlots and piggeries under the Environmental Protection Act 1994. Due to the proximity of existing cattle feedlots, it is recommended that any infrastructure such as offices or camps be located away from the feedlot to avoid odour impacts. Any further questions relating to the separation distance please contact Brett Cowan 46881512 or Mitchell Furness 46881374. Fisheries and Aquaculture Industry Development, Planning & Assessment (South) General The basis for provision of DPI&F comments is the jurisdiction of the Fisheries Act 1994. DPI&F is the lead agency for fisheries resources and protects fisheries habitats under the Fisheries Act 1994.	Response: Refer to Supplementary EIS Volume 1, Chapter 6 Project Operations, section 6.6.
12-2	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	The following general comments refer to various aspects of the Wandoan Coal project, including the proposed mining lease application areas (MLAs), and the three options for the supply of raw water to the MLAs. All of these have the potential to cause adverse impacts on fish habitats and fisheries resources. Additional specific comments in relation to the option to raise Glebe Weir are provided in the attached table, and Appendix I outlines the processes that DPI&F will require to ensure adequate provision of fish passage if the Glebe option is adopted for the project. Generally, DPI&F acknowledges that the EIS has identified the major potential impacts of the MLAs and water supply pipelines on fisheries interests, and has proposed a range of measures to mitigate these impacts. Overall, DPI&F is satisfied that with full implementation of the mitigation measures, most impacts can be adequately mitigated.	Noted
12-3	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	DPI&F remains concerned that the diversion of waterways in the subject area have the potential to create long term adverse impacts to fish habitats. The specific details of proposed diversion, and of the construction alternate channels, will need to demonstrate that fish movements and fish habitats will not be adversely impacted by the works. Approvals under the Integrated Planning Act 1997 are likely to be required from this Department for the proposed diversion works (construction of waterway barrier works).	Response: Refer to Supplementary EIS Volume 1, sections 11.6.6, and 17B.6.6.
12-4	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	DPI&F understands that all three options for the supply of raw water to the MLAs would require the construction of pipelines of similar length and potential impact on fisheries interests. Given the implementation of appropriate construction methods and site rehabilitation for waterway crossings, the impacts of constructing the pipelines on fisheries values of the area should be minor. As identified in the EIS, measures to avoid the transfer of fish, particularly pest species, will be required whichever option is selected. DPI&F would have particular concern with the option to source water from the Condamine basin and the consequent potential for inter-basin transfer of aquatic diseases. The proponent should also note that despite likely low impacts of construction, approvals from DPI&F may still be required for pipeline crossing works if there is a need to temporarily bund waterways to construct the crossings.	Response: Refer to EIS Volume 2, sections 11.6.1 and 17B.6.3, and Supplementary EIS Volume 2 sections 17B.6.3 and 17B.6.4.
12-5	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	In relation to the option to raise Glebe Weir, DPI&F considers there to be a relatively high potential for adverse impacts on fish habitats, and a reduced capacity for mitigation measures to adequately address these impacts. In particular the inundation of an additional 8km of riverine waterway within the Dawson River, Cockatoo Creek and Boggomoss Creek, and the creation of additional shallow impounded areas that may promote excessive growth of aquatic macrophytes, including exotic pest species (eg. hymenachne), are of concern. The EIS does not fully recognise these as adverse impacts, but suggests that the inundation of these areas may suit many species of fish. DPI&F considers the permanent loss or major alteration of riverine habitats to be a major impact on riverine fish communities, and supports the adoption of alternatives that would avoid these impacts.	Response: Refer to Supplementary EIS Volume 4, sections 13.1.1 and 13.2.1
12-6	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	The raising of Glebe Weir would also require approval from this Department for the raising of waterway barrier works. While the EIS acknowledges the need to accommodate fish passage if Glebe Weir is raised, it also states that a fishway would not be provided in the short term, pending a decision on the proposed Nathan Dam. DPI&F does not accept this position. In a meeting with SunWater, DPI&F officers have provided two alternatives should the Glebe option be adopted — either a fishway will be constructed on Glebe Weir, or a fishway will be retrospectively fitted to an existing weir in the Dawson River. DPI&F remains open to further discussion of these options.	Response: Refer to Supplementary EIS Volume 4, sections 3.2 and 13.2.3
12-7	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Any further questions relating to the fishery matters mentioned above please contact Robert Simpson 07 3817 9531 or Claire Peterken 07 3225 2239. If you require any further information regarding this matter, please do not hesitate to contact Veronica Slizankiewicz on telephone 07 4688 1583 or email veronica.slizankiewiczdpi.qld.gov.au.	Response: Refer to Supplementary EIS Volume 4, section 13.2.3
12-8	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	DPI&F- Intensive Livestock Environmental Management Unit Section 5 Construction, 5.2.3 & 5.3.3 Accommodation Facilities Issue: Potential future conflict with existing intensive animal industries and the proposed accommodation facilities associated with the Wandoan project regarding separation distances required for odour management. The DPI&F have a legislative responsibility for piggeries and cattle feedlots as delegated under the Environmental Protection Act 1994. Any application for a development permit for these industries takes into consideration separation distance for odour. Suggested solution: It is suggested that any camps that are to be built (temporary of permanent) are situated in the recommended distance away from any existing intensive animal industries. To ensure that the most appropriate separation distance is achieved for dwellings located near existing beef cattle feedlots and piggeries it is recommended that separation distances be calculated using DPI&F publications (Separation Guidelines for Queensland Piggeries and Reference Manual for the establishment and operation of beef cattle feedlots in Queensland).	Response: Refer to Supplementary EIS Volume 1, section 6.6, and Volume 2 section 5.3.5.
12-9	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	DPI&F- Fisheries and Aquaculture Industry Development 2.2.1 page 2-3, 5.3.1.2 page 5-18, 13.4.1.1 page 13-30, 13.4.2.1 page 13-39 & others Issue: The EIS indicates a commitment to fit both a fishway and multi-level off take to Glebe Weir if Nathan Dam is not approved. Both of these activities will require significant work to be undertaken to the outlet works of the weir, and will need significant capital investment. Subsequently, SunWater is proposing to defer the installation of the multiple level off take and fishway until a decision has been made regarding the future of Nathan Dam, as the dam would inundate the weir should it proceed.	Response: Refer to Supplementary EIS Volume 4, section 3.2
12-9	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Suggested solution: Under the objectives of the Fisheries Act 1994, the chief executive may only approve an application for waterway barrier works when: 76G When chief executive may approve applications relating to waterway barrier works (1) This section applies to a development application for the construction or raising of a waterway barrier works.	Response: Refer to Supplementary EIS Volume 4, section 3.2

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12-10	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	(2) When giving a concurrence agency response to the assessment manager for the application, the chief executive must tell the assessment manager to refuse the application unless— (a) the chief executive is reasonably satisfied— (i) the waterway barrier works includes, or will include, a fish way that adequately provides for the movement of fish across the barrier works; or (ii) the movement of fish across the waterway barrier works is, or will be, adequately provided for in another way; or (iii) the waterway barrier works is intended to exist only for a temporary period and the disruption, during the period, to fish movement in the area in which the barrier works is, or is to be, located is acceptable, having regard to the objectives of this Act; As the EIS process and decision on Nathan Dam are not yet finalised, and are separate to those for Glebe Weir, DPI&F would not be satisfied that the potential disruption to fish movement of raising Glebe Weir without constructing a fishway is acceptable with regard to the objectives of the Act;	Response: Refer to Supplementary EIS Volume 4, section 3.2
12-10	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	As the EIS process and decision on Nathan Dam are not yet finalised, and are separate to those for Glebe Weir, DPI&F would not be satisfied that the potential disruption to fish movement of raising Glebe Weir without constructing a fishway is acceptable with regard to the objectives of the Act. DPI&F experience is that deferring a decision on the fishway would be a high risk to fish passage as demonstrated at Redford and Bingegang weirs on the Mackenzie River, also in the Fitzroy Basin. When these weirs were raised (in the rate 1990s), the capacity for retrofitting fishways was incorporated. However, despite recommendations and requests from DPI&F and some very high level undertakings to install fishways as well as ongoing requests from the local community over the past decade, neither weir has had a fishway retrofitted on it. As a result DPI&F have already had discussions with Sunwater outlining their concerns about the risks to fish passage of this approach. Options for an alternative approach have been suggested and are being considered by SunWater, and this dialogue is expected to continue as a way of resolving the issue.	Response: Refer to Supplementary EIS Volume 4, section 13.2.3
12-11	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	3.3.17 Fisheries Act 1994 Issue: This development application will be assess against the relevant provisions of the Fisheries Act 1994. Suggested solution: Waterway barrier works assessments are likely to be required for temporary road crossings, culvert upgrades and pipeline crossings.	Response: Refer to Supplementary EIS Volume 4, section 3.2
12-12	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Table 3.1 Page 3-26 Issue: Fish movement exemption notice. Suggested solution: A fish movement exemption notice may be sought but will only be given if, as outlined in Page 3-26 the Fisheries Act 1994: 76F Deciding application for fish movement exemption notice (3) The chief executive may give the notice only if the chief executive is reasonably satisfied it is not necessary or desirable, for the best management, use, development or protection of fisheries resources or fish habitats, for a proposed construction or raising of a waterway barrier works in the area to provide for the movement of fish across the barrier works.	Response: Refer to Supplementary EIS Volume 4, section 3.2
12-12	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Examples, for subsection (3), of the bases on which the chief executive maybe satisfied— 1 Allowing for fish movement in the area is not necessary because— (a) there are no fish located in the area; or (b) it is not necessary for the fish located in the area to access the fish habitat upstream of the area. 2 There are other barriers in the area which prevent the movement of fish located in the area. The EIS outlines that there are fish in the Dawson River at the Glebe Weir site. Over 300km of waterway and habitat above Glebe Weir will become further isolated if fish passage is not adequately provided for. Further to this other barriers are outlined in fisheries policy as natural barriers (such as waterfalls or rock bars). The presence of other dams or weirs on a waterway would not generally satisfy this requirement.	Response: Refer to Supplementary EIS Volume 4, section 3.2
12-13	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	5.2.1 Page 5-6 Issue: During construction of the pipeline a 30 m wide corridor will be required to allow for associated construction works, however the area required for operation of the pipeline will be 16 m wide. Suggested Solution: Disturbance to waterway bed and sediment should be minimised to the trench area and access to the site. Construction of any bunds to achieve a dry work site across a waterway will be either assessable development or self-assessable development under the Integrated Planning Act 1997. Sediment stabilisation is recommended in all waterways to limit erosion.	Response: Refer to Supplementary EIS Volume 4, section 5.2.1
12-14	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	5.3.1.2 page 5-15 Raising Proposal Issue: A physical hydraulic model of the proposed structure will be constructed and tested to determine the optimum arrangements to dissipate energy, reduce the risk of erosion undermining the downstream toe of the weir, and, in consultation with aquatic ecologists, minimise the risk of fauna suffering trauma during overflows. & The need to attract fish to the fishway will also be considered.	Response: Refer to Supplementary EIS Volume 4, section 5.1
12-14	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Suggested solution: From a fisheries perspective, overshot spillways are less damaging to fish than undershot spillways and are therefore preferred. To minimise the risk of fauna being damaged or killed during overflow, the overflow needs to be directed towards the smooth spillway rather than the stepped section. This would require the inflatable bag above the smooth section of the spillway (section C) to be deflated first. The other inflatable bags would only be deflated once the tail water had risen, and then closed off as the tail water fails. The provision of attractant flows to direct fish towards a fishway entrance is a fundamental consideration in fishway design. Inadequate consideration of this factor has previously led to inefficient operation of fishways. Further information in this regard is provided in the attached Appendix 1.	Response: Refer to Supplementary EIS Volume 4, section 5.1
12-15	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	5.3.2.2 Page 5-21 Pipeline Issue: The preferred alignment has been selected to achieve the best alignments for crossing creeks and drainage lines. Suggested solution: Pipeline crossings of waterways should avoid drought refuge pools where possible.	Response: Refer to Supplementary EIS Volume 4, section 5.2.1
12-16	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	8.3.3.1 Page 8-19 Issue: If the membrane is inflated too quickly on the falling limb of the flood hydrograph, then the rapid draw down of downstream flows may cause the saturated river banks to collapse and potentially strand fish in pools. Suggested solution: Rapid draw down of tailwater levels below weirs with inflatable bags has previously led to significant stranding and deaths of fish, and consequent high levels of public concern about these structures.	Response: Refer to Supplementary EIS Volume 4, section 8.1.8
12-17	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Table 8.13 on page 8-21 Issue: Water release strategy for Glebe Weir based on inflows and storage levels. Suggested solution: The water release strategy should be based on inflows. Fish movement is stimulated via environmental clues including flows, not storage levels. The water release strategy should also detail that the water being released is firstly done so through the fishway as an attractant flow.	Response: Refer to Supplementary EIS Volume 4, section 8.1.2
12-18	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	8.3.3.4 Page 8-27 Flow regime Issue: The flow regimes will be significantly changed by the proposal. Suggested solution: From a fisheries perspective, the flow regime needs to be kept as natural as possible - native fish movements and Lifecycles are adapted to the natural flow regime. The most critical factors for fish movements are the timing and volume of flows. Any changes to the flow regime are likely to alter the balance of the native fish community, and may favour introduced fish species over native fish species.	Response: Refer to Supplementary EIS Volume 4, section 8.1.2
12-19	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	10.5.1 page 10-6 Issue: Excess vegetative material will be burnt if unable to dispose of in other ways. Suggested solution: The burning of organic material often results in large sediment and nutrient pulses into waterways, which can have a significant detrimental effect on water quality and fish health. If burning of any organic material must take place, the location and timing must ensure no increased nutrient or sediment input into the waterways. This includes runoff from floods or rain carrying the sediments and/or nutrients into the waterway. The burning of woody material increases greenhouse gases. In comparison the use of large wood debris as snags for fish habitat results in carbon storage. The mulching of riparian re-vegetation has proved beneficial in other rehabilitation projects.	Response: Refer to Supplementary EIS Volume 4, section 8.3.1

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12-20	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	10.6.3.1 page 10-11 Issue: Of significant benefit may be the extraction and beneficial reuse of topsoil from areas likely to be flooded Suggested solution: This activity is likely to reduce the productivity of the aquatic ecosystem once filled with water. From a fisheries perspective macrophytes (aquatic vegetation) are important fish habitat and food source. The removal of top soil is likely to reduce the quality of water and habitat in the weir pool. Further to this the removal of the root structures of shrubs and grasses along with any earthworks is likely to significantly increase sediment mobility, thereby decreasing water quality.	Response: Refer to Supplementary EIS Volume 4, section 8.3.2
12-21	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	13.4.1.1 page 13-29 Issue: Works on the downstream face of the weir and the temporary river crossing will disturb a length of river bed and banks of approximately 50 m. Suggested solution: The temporary crossing is likely to require approval from DPI&F, and any fish passage requirements at the crossing will be assessed when further details are provided. Any disturbance to the bed or banks will need to be rehabilitated to prevent increased sedimentation.	Response: Refer to Supplementary EIS Volume 4, section 3.2
12-22	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	13.4.1.1 page 13-30 Obstruction of fish passage, 13.4.1.3 page 13-34 Mitigation Measures Issue: The proposed raising of the weir is unlikely to further restrict fish passage because the operation of the bags means they are deflated during floods. The data to date does not indicate any impacts of the existing barrier though this cannot be confirmed because of the limited data and the stocking of angling species that has been undertaken. Also, upstream populations may be sustained but still genetically isolated, hence at long term risk of decline. Impacts to fish movement will be no greater than at present. Suggested solution: These comments do not acknowledge the current requirement of the Fisheries Act 1994 that fish passage must be adequately provided for in the construction or raising of a waterway barrier. Adequate provision of fish passage was not rigorously pursued under previous fisheries legislation, or when the original Glebe Weir was constructed. The construction or raising of waterway barrier works that do not adequately provide for fish movement is no longer acceptable practice.	Response: Refer to Supplementary EIS Volume 4, section 13.2.3
12-23	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	13.4.1.2 page 13-21Issue: It is highly unlikely that such pools will be significantly connected to other water so the impact will remain local. Suggested solution: On the Dawson River, fish are likely to use isolated pools as drought refuge. If fish are present they need to be salvaged as per QDIP&F Fish Salvage Guidelines if water quality declines due to construction. Fish kills are to be reported to the EPA fish kill hotline on 1300130372. Waterholes often provide important drought refuge to native fish and as such need to be repaired to their original condition and depth. Sediment stabilisation will need to be undertaken even in dry waterway beds to prevent erosion.	Response: Refer to Supplementary EIS Volume 4, section 13.2.5
12-24	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	13.4.1.3 page 13-34 Mitigation Measure Issue: ...the potential for fish that utilise floodplains to benefit from the overbank areas is considered an appropriate offset. Suggested solution: DPI&F does not accept this argument. The expanded weir pool may be partially beneficial to fish that utilise floodplains, however, it is this Department's experience that increased impoundment of a waterway favours proliferation of certain species at the expense of others. In SEQ impoundments, it is often exotic pest fish that are favoured by such changes. Any rapid drawdown of water or drawdown during spawning times will disadvantage native fish. Habitat must also be suitable for fish in these areas.	Response: Refer to Supplementary EIS Volume 4, section 13.2.2
12-25	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	13.4.2.1 Page 13-34 Loss and gain of aquatic habitat, 13.4.2.1 page 13-35 & page 20-5 I Issue: Raising of the weir will increase the extent depth (by approximately 25%) and volume (by approximately 70%) of the inundation area and particularly increase the extent of shallow margins. The increased extent of shallow margins may also provide suitable habitat for several species, particularly if they are colonised by macrophytes. Increased floodplain habitat. Suggested solution: The shallow margins of such a pool are likely to support large macrophytes (Persicaria and Typha domingensis). Water level fluctuation may see massive die off of aquatic vegetation thereby reducing water quality. Habitat in the form of snags also needs to be provided. Native fish benefit from access to food and habitat on the floodplain during flood times. Flooded margins may no longer function as floodplains. Floodplain habitat is likely to be converted and lost via the raising of the weir. The temporary inundation of this area is likely to result in weed growth.	Response: Refer to Supplementary EIS Volume 4, sections 13.1.1 and 13.2.2
12-26	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	13.4.2 page 13-34/35 Issue: In most years the depth of the weir will be drawn down such that these areas largely dry but topography of the base is quite uneven so pools of various sizes will remain, This effect will be less significant as a result of the proposed extraction of topsoil from the Cockatoo Creek area. Suggested solution: The removal of topsoil from this area is likely to have a detrimental effect on the aquatic ecosystem and water quality and is therefore not recommended by DPI&F. Isolated pools may need connectivity work to limit the possibility of fish becoming trapped in the pools as a result of water drawdown.	Response: Refer to Supplementary EIS Volume 4, section 8.3.2
12-27	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	13.4.2.1 page 13-35 & 13.4.2.2 page 13-40 Issue: The risk of aquatic flora and fauna being sucked into the pipeline (particularly entrapment and drowning of turtles) will be minimised through a design that minimises suction and incorporates screens to significantly reduce the risk of plants and animals entering the pipeline. Transfer of Fauna through the Pipeline. Consultation with the DPI & F will be undertaken to determine the desirability of fitting the intake with screens. Suggested solution: DPI&F promotes screens designed to prevent the transfer of both native fish and noxious fish eggs and larvae. This is to prevent the translocation of pest fish and to prevent native fish being removed from the river. Screens can also prevent the transfer of weeds etc through the pipeline.	Response: Refer to Supplementary EIS Volume 4, section 13.2.4
12-28	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	13.4.2.1 page 13-36 Issue: First filling will drown existing terrestrial vegetation that will decay and release nutrients to the water column. Clearing of other than substantial non-commercial trees near FSL will reduce this risk. Suggested solution: The roots of small vegetation including of shrubs and grasses to remain in the ground to prevent increased sedimentation. The clearing of vegetation to focus on the removal of soft non-woody material.	Response: Refer to Supplementary EIS Volume 4, section 9.2.2
12-29	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	13.4.2.1 Page 13-37 Issue: Multi-level offtake. Suggested solution: DPI&F prefers overshot offtakes to undershot offtakes. Undershot offtakes tend to produce high water turbulence and water pressure that kill fish. Smooth non-stepped spillways are preferred to stepped spillways to prevent fish from becoming damaged. An overshot multilevel offtake would be the preferred option from a fisheries perspective. If an undershot multi-level offtake is selected, then DPI&F recommends that screens are installed to prevent fish from being killed.	Response: Refer to Supplementary EIS Volume 4, section 5.1
12-30	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	18.3.1.3 page 18-5 Commercial Timber Harvest Issue: The volume of class one and two timber in the area that is necessary to clear has been estimated at 35,000 m3 (Chapter 12). Discussions with the mill owners at Wandoan indicated a value of about $1.8 M. It is planned to market this timber via standard State government processes. Suggested solution: DPI&F encourages the use of woody snags of various sizes for rehabilitation to replace the habitat that is lost due to the increased water levels.	Response: Refer to Supplementary EIS Volume 4, section 13.2.2
12-31	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Table 19-3 page 19-8 Impact on reservoir and/or downstream water quality Issue: Excess biomass left in reservoir if additional area inundated is not cleared of timber. Suggested solution: The clearing of timber from the inundated area is not recommended by DPI&F as timber of various sizes that has been pushed over provides good habitat for native fish as well as erosion control. The clearing of soft leafy material that quickly rots is recommended. The roots of shrubs and grass etc should remain in the ground to prevent erosion. Grass cover is best trimmed close to the ground with the clippings removed to limit the excess biomass.	Response: Refer to Supplementary EIS Volume 4, section 13.2.2

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12-32	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Table 21-7 page 21-25 Implementation Strategy Issue: If aquatic habitat is isolated by works, any fish or larger aquatic fauna should be removed humanely and transferred to the nearest unimpacted riverine area. Suggested solution: Any fish salvage must be done in accordance with the DPI&F fish salvage guidelines. Fish should be relocated to suitable waterholes in the same waterway to prevent the translocation of fish or disease.	Response: Refer to Supplementary EIS Volume 4, section 13.2.5
12-33	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Table 21-25 page 21-66 Implementation strategy Issue: Work with landowners and leaseholders to manage grazing and fire to maintain ground cover vegetation in and around the storage and aid re-establishment when water levels are low. Suggested solution: Recommend off stream watering for stock and fencing to protect riparian revegetation and rehabilitation.	Response: Refer to Supplementary EIS Volume 4, section 7.1
12-34	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Table 21-29 page 21-74 Corrective Action Issue: Assess potential impact of specific exotic species. Control exotic species (if necessary and if possible) under guidance from NRW and EPA. Suggested solution: DPI&F is responsible for the control of noxious pest fish and other exotic species including weeds of national significance (both aquatic and terrestrial), As such, DPI&F should be included in this section.	Response: Refer to Supplementary EIS Volume 4, section 13.1.1
12-35	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Page 22-3 22 List of Proponent Commitments Issue: Temporary erosion protection measures could include ensuring that the temporary crossing over the Dawson River and any other temporary stream crossings needed, do not restrict natural flows and have downstream erosion protection where required. Suggested solution: Temporary erosion protection measures may be classed as waterway barrier works, depending on design, and therefore constitute assessable or self-assessable development under the Integrated Planning Act 1997.	Response: Refer to Supplementary EIS Volume 4, section 3.2
12-36	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Appendix 12-C Clearing Management Plan Issue: Millable timber or timber suited to artisans will be salvaged for sale. Suitable larger material in the weir area will be salvaged and used as habitat for fauna. Suggested solution: Woody debris in the proposed weir pool should be pushed over in place to provide fish habitat to replace the habitat lost due to the increased water level. This also provides protection from erosion etc.	Response: Refer to Supplementary EIS Volume 4, section 13.2.2
12-37	DPI &F (now Department of Employment, Economic Development and Innovation, Queensland Primary Industries and Fisheries)	Appendix 12-C Habitat Rehabilitation Management Plan Issue: The major impact on the natural terrestrial environment of the Glebe Option is the direct loss of vegetation and fauna habitat, both forest and riparian, and the creation of an additional barrier to movement (the inundation area) by terrestrial fauna. Suggested solution: The replacement of riparian vegetation should be a primary aim of the revegetation. The benefits of riparian revegetation are multiple including, buffering, shading, detritus input, habitat, bank stabilisation etc, and will yield positive outcomes for terrestrial and aquatic fauna. This should be done using native plant species to form indigenous plant communities.	Response: Refer to Supplementary EIS Volume 4, section 9.3
13-1	[redacted]	Due to size of the mine and the removal of 50 + properties, over 30,000ha and up to 40+ families conducting business on this highly productive land, there will be a huge adverse impact on the community in a cultural and financial way. The developer, Wandoan Joint Venture should be required to manage the development in a staged programme which would enable the properties to be exited in stages. Lease back options for a nominal fee should be available. This would reduce the impact on the community.	Response: Refer to Supplementary EIS, Volume 1, Section 6.10
13-1		Volume 1 8.3.6 Lists (stock routes as being “inactive”). This is not correct as stock routes are active and are used. These will need to be preserved, probably in conjunction with road realignments. Consultation required with DNR and the Dalby Regional Council.	Response: Refer to Supplementary EIS Volume 1, section 3.3.14.
13-3		Water Bores 10.2.1 · There appears to be no management plan of existing bores to be affected by mining. Existing bores should be cemented from bottom to top to eliminate possible contamination of underground water from mining activities. · The hydrocensus identified multiple landholders being serviced by “bore drains” from community bores. It should read by “pipe lines”. There is a big difference.	Response: Refer to Supplementary EIS, Volume 1, section 10.3.3 and 10.6.2.
13-4		Great Artesian Basin- TR-11-1-V1.5 11.2.7 Ground water Impact Assessment for Supplies – Drawn from GAB. It quotes Section 26 of the G.A.B. WRP. 10,000 ML is available for 10,000 ML is available for allocation from the State Reserve if:- · of State significance · of Regional significance · for water granted to Local Gov. I acknowledge that this project qualifies for an allocation from the above. I note that they intend to apply for a temporary water permit for construction for 2 years. The allocation they require for construction water is 360ML. plus 10ML for storage dam evaporation. This is on top of Wandoan’s present use of 205ML plus an estimated 168ML of water for mining camp and expansion of Wandoan. (This figure is too conservative I believe for the expansion of Wandoan). This application for 370ML for construction is a massive increase and will have a major impact on the GAB. I believe the only extra allocation should be to Local Gov. for potable water only.	Response: Refer Supplementary EIS Volume 1, sections 11.2.7 and 11.6.7.
13-4		Under 5.5 on modelling on draw down and impacts of bores and springs in the precipice sandstone it states “ A simplified analysis was carried out, assuming supplies were drawn from a single point, and that the Precipice Sandstone aquifer is of infinite extent”. While I don’t take issue with the model figures on draw down etc. as I don’t have expertise in this field, I believe that there are so many unknowns and variables in the GAB system, that is all it is a model. There could be large variances to the stated impact on existing bores and the GAB. What I take issue with is that the Precipice Sandstone water is of “infinite extent”. Data can be obtained from DNR to show that water levels in sub-artesian bores and that pressures in flowing bores are dropping.	Response: Refer Supplementary EIS Volume 1, sections 11.2.7 and 11.6.7.
13-4		A sub-artesian stock water bore in the precipice sandstone on our property on Cockatoo Creek 50 k’s NE Wandoan, static water level has dropped from 3.8 metres in 1966 to 6.4 metres on 10/08/08. A drop in the water table of 2.6 metres in 42 years. A flowing bore on a property on Nathan Road “Wallockatoo” approx 50k’s NW Wandoan has had a marked drop in flow and pressure in recent years. Recent DNR tests confirms this.	Response: Refer Supplementary EIS Volume 1, section 11.2.7.
13-4		With all due respect to modelling data obtained by Xstrata, the inescapable fact is that the recharge rate is not matching the use rate of the GAB in this area. Non-essential use of the GAB water should be prohibited. At present there are towns solely dependent on water from the artesian basin. There are also thousands of existing businesses (cattle and sheep properties) solely dependent on the artesian water (precipice sandstone and huttons in this area) for stock and domestic use. I don’t believe we can run the risk of having these existing users of GAB water position compromised. Property owners are refused permission to use this same water for commercial use in feedlots or for irrigation. There is a double standard here. I believe these controls are necessary due to lack of knowledge as to the extent of the artesian basin or to its recharge rate.	Response: Refer Supplementary EIS Volume 1, section 11.2.7.
13-5		However with the availability of large volumes of water from the development of gas bores in the Surat Basin, circumstances have changed since the government made the 10,000Ml allocation from the GAB. While Xstrata have flagged the use of CSG water from the South and West, and Glebe Weir water, no mention is made of potential water available from the many recent gas bores being constructed only 10 to 20 k’s from their mining lease. Also water capture from overland flow from their own land does not seem to have been considered.	Response: Refer Supplementary EIS Volume 1, sections 11.4.3 and 11.4.4.
14-1		First and fore most we wish to make it very apparent we do not want to sell our land for coal mining purposes. We are a family operated business committed and passionate about our chosen occupation and lifestyle. We are proud that we have made a sustainable livelihood from and worthwhile contribution to the agricultural industry for four generations. It is our firm intention to continue this into the future. • It should be noted this project is not deemed compulsory acquisition and, therefore, we as landholders are subject to capital gains tax unless rollover conditions are met which comes at the cost of having to change your operation. Although it is not deemed compulsory acquisition, if an agreement is not reached to sell our land, it is obligatory to have the Land Court determine market value of the property and compensation which would be to the detriment of the landholder through the time and expense incurred in representing such a case and for whose gain? • It has been the result of planned and deliberate management that we have acquired and watered three properties strategically positioned to each other and recently purchased a fourth adjoining property to gain operational efficiency. It would now appear that we are going to have to forfeit this carefully acquired pastoral entity for the potential gain of the mining company at a considerable loss to us.	Noted

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14-1	[redacted]	• To be fair to us, as we are losing our land through no choice of our own, we should be given the right to lease back our land from the mining company up until three months prior to the drag lines commencing operation on our property at a fair and reasonable rate. • As can be noted from past and personal experience, if land is leased commercially it will tend to be run with the intention of producing the maximum return for the short term, that is, it may be overgrazed and overstocked with no consideration for the land as far as degradation, erosion, soil and pasture conservation and maintenance of improvements. The current landholders will, by nature, be the best custodians of the land utilizing their local experience and knowledge of best farm management practices to preserve the land and sustain its current high agriculturally productive status. On this basis again we would like noted it is imperative that a lease back option be conducted on an individual property basis by the mining company and not a blanket policy to cover all holdings	Response: Noted and Refer to Supplementary EIS Volume 1, section 6.10.
14-2		• If the proposed 70,000 acres being resumed is run collectively by Colinta Holdings this area would be capable of fattening up to 10,000 head of cattle per year. For one company to be in control of purchasing and selling cattle numbers of that magnitude in the one district would be detrimental to local producers' viability.	Noted
14-3		• We have major concerns as to the noise, dust and light pollution on properties adjoining the mine in relation to their effects on agricultural production and on people's places of residence. The Wandoan district is well recognized as being in the top four cattle fattening regions in Queensland whereby large numbers of cattle are brought in from other areas rather than being bred in the district. Bought cattle will take time to acclimatise to these types of pollution which will reduce their potential weight gain over the same period. The noise, dust and light emitted from the mines will act as a significant deterrent for families living in houses in the vicinity of the mine. Currently we rent out vacant houses on our properties which will be in close proximity to the proposed mine site and it is our concern that these houses will no longer be rentable because these types of pollution will make the living conditions unattractive.	Response: Refer to the Supplementary EIS Volume 1, Chapter 26 Cumulative Impacts, section 26.3.1.
14-4		• We are opposed to mining companies accessing water from the artesian basin. In our local vicinity there are approximately ten community groups who access water for stock from the precipice water formation. If the water table was to drop these pumps would all have to be lowered into the pump wells (providing the pump wells were drilled low enough initially) in order to access the same amount of water. To cater for this the power lines would have to be upgraded from single phase to three phase to operate larger electric motors which could manage the additional pumping requirements. It is our belief that any expense of this nature should be incurred by the mining company if they extract water form the artesian basin.	Response: Refer to Supplementary EIS, Volume 1, sections 11.2.7 and 11.6.7.
14-5		• We have major concerns with the proposed piping of water from the coal gas seem. This water extracted from the coal gas seem which will be used in the wash down bays has salt levels in excess of 3000 parts per million. This amount of salt leaching into the soil will render it barren and non productive. How will this be addressed?	Response: refer to Supplementary EIS, Volume 1, Section 9.6.3 and 11.4.4.
14-6		• As to the proposed closure of the L Road, anyone living South of the Dawson River and West of Juandah Creek needs to use this road to travel East and South when these creeks are flooded. We feel that a bridge would need to be installed at the high water level across Horse Creek on Perretts Road between the properties of "Retreat" and "Bundi" so that access can be made to the Bundi Road in times of flood. The condition of this road would need to be upgraded to be drivable in the wet.	Response: Refer to Supplementary EIS, section 6.6.2.
14-7		Finally we believe it is paramount Xstrata provide major sponsorship for all facets of local community life as small compensation for the impact that the development of the largest proposed coal mine in the Southern hemisphere has had and will continue to have on our highly regarded cattle grazing land. To see what has happened to the townships of Maitland and Scone in NSW is enough to instigate the above.	Response: Refer to Supplementary EIS Volume 1, sections 4.7 and 21.8.
15-1	Taroom Landcare	Taroom Shire Landcare Group (TSLG) appreciates the opportunity to comment on the potential impact both during and after the proposed Xstrata Wandoan Coal Project. Taroom Shire Landcare Group is a community based organisation that represents and voices the district concerns on natural resource management. We see our organization as a key aspect of the community, and feel obligated to represent their views and queries about the development and direction of the region in the future.	Noted
15-2	Taroom Landcare	Weeds We are concerned that loss of local knowledge, ownership familiarity with the land may lead to an increase in weeds (declared and of concern). Due to the significant area of mining lease and additional area purchased, we suggest the appointment of a dedicated weed management officer. The weed and pest species lists (17A4-5) contain errors; see Landcare member comments in the enclosed document. Insufficient detail was provided to adequately comment on weed management (Book 1.2 17A.5.1) strategies. We would like more details on further opportunities to comment. As a minimum we would expect suitable washdown procedures/sites.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2.
15-3	Taroom Landcare	Watercourse diversions (Book 1.2 sections 11.6 & 9) Local knowledge suggests that the predictions for flood impacts above the diversions may be understated. Of particular concern is the loss of the natural floodplain. We would like to see the energy (of concentrated water) reduced by recreating the meandering pattern, waterholes and natural wears.	Response: Refer to Supplementary EIS Volume 1, section 11.5.3.
15-4	Taroom Landcare	Water Quality (Book 1.2 11.3.6 pg 11-22) We take issue with the implication that the high nutrient values observed were lined to fertiliser applications; when in fact fertiliser sales are minimal. In contradiction high heavy metal levels were attributed to natural leaching. Land disturbed during mining will only see levels increase. In addition to the overland flow measures we would like to see organic ground (Book 1.2, 9.6) cover established and maintained.	Response: Refer to Supplementary EIS Volume 1, section 11.3.6.
15-5	Taroom Landcare	Artesian and Subsurface Water Quality / Levels Shallow and deep bored identified on the map contained errors and did not include all of The bores in the proximity. Additional information needs to be sought from landholders within a reasonable buffer of the site. We would like to see additional monitoring (quality and Quantity) within these sites (Book 1.2 section 28, pages 28-9 & 28-10).	Response: Refer to Supplementary EIS Volume 1, section 10.3.3 and 10.8.
15-6	Taroom Landcare	Daily use of saline CSM (Book 1.2 page 9-24) water for dust suppression is of concern (Book 1.2 page 25-7). In contradiction other plans for the lining of the storage facility flagged as necessary. We suggest surplus overland flow be used for dust suppression and limit the use of CSM to Coal washing.	Response: Refer to Supplementary EIS Volume 1, sections 9.6.3, 11.4.4, and 11.6.2.
15-7	Taroom Landcare	Biodiversity Offsets (Book 1.2 Section 17A) No mention of biomass or fire management in the biodiversity offset areas (chapter 17). We would like to see a fire management plan implemented.	Response: Refer to Supplementary EIS Volume 1, sections 7.8 and 17A.6.1.
15-8	Taroom Landcare	Past environmental projects, such as riparian or remnant fencing, should be replaced by a similar project in the district (Book 1.2 pg 25-18). Land care has details of publicly funded project that cost in the vicinity of $600,000.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2.
15-9	Taroom Landcare	Landform (Book 1.2 Section 25) We are concerned that this area will no longer be suitable for grain production as it was in the past. We would like to se the final void backfilled (Book 1.2 pg 25-4) with the original dragline box cut material (F: 6-5-V13).	Response: Refer to Supplementary EIS Volume 1, sections 6.4.4, 9.5.6, 9.6.5 and 25.4.6.
15-10	Taroom Landcare	Rehabilitation We are concerned with the poor reputation and historical evidence of rehabilitation efforts. Historical evidence of mine-site rehabilitation suggests it's a failure. We look forward to a real world example. The use of artificial fertiliser is detrimental in the long term recover effort. It destroys the soil food web (soil microbes). Physical disturbance during mining will have destroyed soil structure. Landcare has expertise with using biological methods of restoring soil health by using natural processes to increase soil carbon and nutrient cycling.	Response: Refer to Supplementary EIS Volume 1, sections 9.6.3 and 25.4.7.
15-11	Taroom Landcare	TSLG looks forward to positive engagement with Wandoan Joint Venture on the issues outline in this submission and will monitor the progress and the project with interest. Please contact Andrea Beard with further enquiries.	Noted
16-1	Department of Main Roads(now Department of Transport and Main Roads)	Thank you for inviting the. Department of Main Roads to comment, on the Environmental Impact Statement EIS) for the Wandoan Coal Project. The Department has reviewed the EIS and generally supportive of the overall content. The EIS includes much of the necessary traffic information and analysis for the project. However, further detail is required to adequately assess project related road impacts and clarify administrative arrangements. Suggested amendments and advice are provided in Attachment A. To further clarify Main Roads requirements for the EIS to fully assess road related impacts of the project and for the development of the Traffic Management Plan and any necessary contribution arrangements the proponent and their consultants should continue to consult with Mr Adam Williams of Main Roads Roma Regional Office. He can be contacted on (07) 4622 9533. Should you have any queries regarding these comments, please contact Brent McLean of the Development Impact Branch, (07) 3137 7687.	Noted

Submission Number	Submitter	Submission	Response
16-2	Department of Main Roads(now Department of Transport and Main Roads)	Issue- Page 6-2 Section 6.2 Site Description Subsection 6.2.2 Mineral Resources, subsection Initial Mining, identifies the proposition for an initial mine of 500,000 tonnes of ROM coal for further market testing to be conducted during Years -2 and -1. However, it is not stated clearly as to whether the assessment of road impacts of this proposed extraction will be undertaken through the EIS process under the Environmental Protection Act 1994 (Qld) or under the Notifiable Road Use provisions of the Mineral Resources Act 1989 (Qld) (MRA) (see Part 7A Division 1, 2 and 3 MRA). Recommendation- The EIS should clearly state the intention to carry out the proposed 500,000 tonne initial mine, reference the chosen legislative instrument to underline the assessment process, and thoroughly document its assessment of road impacts and mitigation measures.	Response: Refer to Supplementary EIS Volume 1, section 12.4.1.
16-3	Department of Main Roads(now Department of Transport and Main Roads)	Issue- Page 6-24-25 Section 6.6 Project Infrastructure Subsection 6.6.4 AIR TRANSPORT, proposes the consideration of incorporating air travel for the efficient movement of the Wandoan Coal workforce either through an upgrade of Taroom Aerodrome or construction of a new facility. However, page 32 of the Wandoan Coal Project Transport Impact Study Technical Report states that an air strip and supporting facilities will be constructed within or immediately adjacent to the mining lease area. Recommendation- The EIS should clearly state the intention to incorporate air travel into the development, and if incorporated, provide a site specific assessment of requirements and details for airfield construction and access arrangements.	Response: Refer to Supplementary EIS Volume 1, Chapter 6, section 6.6.4.
16-3	Department of Main Roads(now Department of Transport and Main Roads)	Issue- Page 12-21 Section 12.6 MITIGATION MEASURES Subsection 12.6.1 Pavement Impact Assessment, acknowledges that maintenance costs are yet to be determined between MR and Dalby Regional Council in relation to local roads. Recommendation- The proponent should provide an assessment of contributions which would cater for any necessary road maintenance, rehabilitation or upgrades on the affected road network. Contribution calculations should be undertaken in consultation with the relevant transport authorities.	Response: Refer to Supplementary EIS Volume 1, Chapter 12, sections 12.6.1 and 12.6.2.
16-4	Department of Main Roads(now Department of Transport and Main Roads)	Issue- Page 12-22 Section 12.7 Residual Impacts Subsection 12.7.1 Safety Impacts, states a Traffic Management Plan will be developed for the affected road network in consultation with MR, Queensland Transport, and the Dalby Regional Council. Recommendation- The proponent should provide a Traffic Management Plan to ensure the ongoing safety and efficiency of the affected road network. The Traffic Management Plan should be undertaken in consultation with the relevant transport authorities.	Response: Refer to Supplementary EIS Volume 1, Chapter 12 Transportation, section 12.7.1
16-5	Department of Main Roads(now Department of Transport and Main Roads)	Issue- Subsection 12.5.3 Road Safety, highlights potential safety concerns for the surrounding road network and access of the MIS during the 10-day workforce shift change period. The potential for road safety concerns for the region's school bus route is also alluded to in this section. Recommendation- The Traffic Management Plan should pay particular attention to mitigating the potential impacts and safety concerns regarding the increased traffic associated with the 10-day workforce shift change period, access from the MIA to the Leichardt Highway, and the road safety issues concerning the projects interaction with the region's school bus routes.	Response: Refer to Supplementary EIS Volume 1, Chapter 12 Transportation, section 12.7.1
17-1	Guluguba Affected Landholders Group	We refer to the above and proposed coal seam methane water pipeline corridor (known as the Southern CSM water supply pipeline) which will carry raw water from Queensland Gas Company Bellevue holding pond (approx 8km east of the town Miles) to the proposed Wandoan Coal Project and wish to voice our concerns on the issue. A large portion of the proposed Southern pipeline corridor has not be accessed by any contactors and employees of Xstrata and cannot understand how a Environment Impact Statement can be submitted when they have not assessed the area where the proposed pipeline is going to lay.	Noted
17-2	Guluguba Affected Landholders Group	We also wish to advise that we have had two meetings with Xstrata, one on the 10th December, 2008 and the second one on the 21st January, 2009. On the second meeting we have been advised by Rob Thatcher of Xstrata that the proposal corridor route will be changing from the bottom of the range at "Giligulgul" to continue all the way to Wandoan township on the Leichardt Highway and than into the mine site. By changing this route Rob confirmed that it will not be entering into any landholders properties and will stay on existing corridors that are in place now. Xstrata have advised us that this information will be in there supplementary EIS.	Response: Refer to Supplementary EIS Volume 2, section 2.5.6.
17-3	Guluguba Affected Landholders Group	We refer you to our first letter to the Coordinator General dated the 12th September, 2008 and reiterate our concerns o Occurrence of maintaining the corridor o Contamination from potential water leaks (salinity, damage to natural water systems) o Contamination of weeds (Parthenium) o Visual Impact on affected land (release valves from pipeline) o Stress and well being of the landowners throughout consultation regarding the project We submit these concerns for your consideration and look forward to an early response.	Response: Refer to EIS Volume 2, section 6.3.1, 11.5, 11.6, 17A.5.2, 19.5, and 19.6, and Supplementary EIS Volume 2, sections 17A.5.2, 19.5 and 19.6.
18-1	Northern Energy Corporation Ltd	Northern Energy Corporation Limited (NEC) makes this submission regarding the environmental impact statement for the Wandoan Coal Project in the context of being a developer of the Elimatta Coal Project. A brief description of the Elimatta Project is attached for reference. The Project is located near to the Wandoan Project area on its western side. A common interest between the projects exists specifically in the form of a water and power supply for mining but also generally to reduce the cumulative impacts of the projects on the Wandoan region. Opportunity exists for NEC and the Wandoan Joint Venture (WJV) to share infrastructure for their respective projects. This submission makes reference to those areas where NEC sees benefits to all parties WJV, NEC, Government and the community by achieving joint outcomes.	Noted
18-1	Northern Energy Corporation Ltd	NEC proposes to make an application for a mining lease or leases and environmental authority for the Elimatta Project in March 2009 in order to meet a start of production date of mid 2012. This coincides with start of operations at the Wiggins Island Coal Terminal at Gladstone and commissioning of the Surat Basin Rail line and the Moura line upgrade projects. NEC supports the development of the Wandoan Coal Project as outlined in its EIS and is committed to achieving a positive outcome for all parties.	Noted
18-2	Northern Energy Corporation Ltd	Terms of reference – 1.3.2: Project rationale – Relationship to other projects. and Terms of reference – 1.5 Collocation opportunities and Vol 1, Book 2. Chapter 2, Section 2.12 – Water Supply and Vol 1, Book 2, Chapter 2, Section 2.17.5 – Northern Energy – Elimatta Project Issue: ·NEC is developing the Elimatta Project, an open cut coal mine of 4.0 – 5.0Mtpa product capacity – see Elimatta Project Summary attached. · The Elimatta Project has a requirement for 500Ml water for construction purposes and 1,500 to 2,000Mlpa for operations. · NEC is investigating using Coal Seam Methane extraction water from the Sunrise CSM gas fields as a source of water for the Project · The Elimatta Project development schedule is planned around first production being available for railing to Wiggins Island Coal Terminal at Gladstone from mid 2012. This aligns with the publicly stated development schedules for the Wiggins Island Coal Terminal Project, the Surat Basin Rail Project and the Moura Rail Line Upgrade Project.	Noted
18-2	Northern Energy Corporation Ltd	The Elimatta Project development schedule is planned around first production being available for railing to Wiggins Island Coal Terminal at Gladstone from mid 2012. This aligns with the publicly stated development schedules for the Wiggins Island Coal Terminal Project, the Surat Basin Rail Project and the Moura Rail Line Upgrade Project. · The Elimatta Project is centred approximately 30km west of the Wandoan Mine Project Industrial Areas and less than five km from the preferred route for the western CSM water pipeline as described in the Wandoan EIS, Volume 3. · The Elimatta Project has coal resources to support an operational mine for a "life" greater than 20 years, plus construction and decommissioning time.	Noted
18-2	Northern Energy Corporation Ltd	Suggested solution: The preferred route for the western pipeline is supported by NEC. With this submission NEC wishes to highlight opportunities for collocation of infrastructure. NEC proposes: · Xstrata as manager for the WJV and NEC combine their activities for a water supply for both mine projects into the western pipeline supply option as described in the Wandoan Project EIS at Volume 3. The existing alignment of this corridor option is suitable to NEC. · Xstrata and NEC jointly own the pipeline in proportion to their respective shares of water requirements and operate that part of the pipeline from the supply source to the Elimatta off take near the Elimatta Project. · Xstrata WJV to be responsible for the remainder of the pipeline through to the Wandoan Industrial area. · Alternatively, WJV or a third party owns and operate the pipeline with NEC for the Elimatta Project having a supply arrangement with owner and operator to the Elimatta off take point near the Elimatta Project from where NEC would be responsible for its off take infrastructure. This proposal will require an increase of the pipeline capacity over that discussed in the Wandoan Coal Project EIS to meet the Elimatta Project requirement.	Refer to Supplementary EIS Volume 1, section 1.2.1. Volume 3 Western CSM Water Supply Pipeline, no longer forms part of the Project.

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18-2	Northern Energy Corporation Ltd	· Alternatively, WJV or a third party owns and operate the pipeline with NEC for the Elimatta Project having a supply arrangement with owner and operator to the Elimatta off take point near the Elimatta Project from where NEC would be responsible for its off take infrastructure. This proposal will require an increase of the pipeline capacity over that discussed in the Wandoan Coal Project EIS to meet the Elimatta Project requirement.	Refer to Supplementary EIS Volume 1, section 1.2.1. Volume 3 Western CSM Water Supply Pipeline, no longer forms part of the Project.
18-2	Northern Energy Corporation Ltd	Terms of reference – 1.3.2: Project rationale – Relationship to other projects. and Terms of reference – 1.5 Collocation opportunities and Vol 1, Book 2. Chapter 2, Section 2.13 - Power Supply and Vol 1, Book 2, Chapter 2, Section 2.17.5 – Northern Energy – Elimatta Project Issue: NEC is developing the Elimatta Project, an open cut coal mine of 4.0 – 5.0Mtpa product capacity – see Elimatta Project Summary attached.	Noted
18-3	Northern Energy Corporation Ltd	The Elimatta Project will have 10 – 12MW installed electrical equipment requirement during operation. · NEC has made connection enquiries on both Ergon Energy Limited and Powerlink Queensland and has started investigations into utilising Coal Seam Methane for on or near site generation of power. Both Ergon and Powerlink have indicated that the Wandoan JV project will heavily influence the approach adopted for the provision of increased grid capacity required in the Wandoan region to support the WJV and other activities planned in the vicinity including Elimatta. · The Elimatta Project development schedule is planned around first production being available for railing to Wiggins Island Coal Terminal at Gladstone from mid 2012. This aligns with the publicly stated development schedules for the Wiggins Island Coal Terminal Project, the Surat Basin Rail Project and the Moura Rail Line Upgrade Project. · The Elimatta Project is centred approximately 30km west of the Wandoan Mine Project Industrial Areas. · The Elimatta Project has coal resources to support an operational mine “life” greater than 20 years, plus construction and decommissioning time.	Noted
18-3	Northern Energy Corporation Ltd	Suggested solution: NEC supports the alternative power supply options identified by WJV. With this submission NEC wishes to highlight opportunities for collocation of power supply infrastructure. NEC proposes: · Xstrata as manager for the WJV and NEC combine their activities to secure a power supply for both mine projects. · Xstrata WJV and NEC jointly own any common private infrastructure in proportion to their respective shares of power requirements. · NEC to be responsible for its own infrastructure specific to the Elimatta project and connected to the joint use infrastructure. · Alternatively WJV or a third party owns and operates the infrastructure for supplying power into the Wandoan region with NEC for the Elimatta Project having a supply arrangement with the owner and operator to the Elimatta off take point near Elimatta from where NEC would be responsible for its off take infrastructure.	Noted
18-4	Northern Energy Corporation Ltd	Terms of reference – 1.3.2: Project rationale – Relationship to other projects. and Terms of reference – 1.5 Colocation opportunities and Vol 1, Book 2, Chapter 2, Section 2.17.5 – Northern Energy – Elimatta Project Issue: NEC is developing the Elimatta Project, an open cut coal mine of 4.0 – 5.0Mtpa product capacity – see the Elimatta Project Summary attached. Issue: · NEC is developing the Elimatta Project, an open cut coal mine of 4.0 – 5.0Mtpa product capacity – see Elimatta Project Summary attached. · The Elimatta Project will require a product transport route to access the Surat Basin Rail (SBR) which is planned to provide a rail link to the existing Moura line to Gladstone for the WJV and other mine projects. The route under investigation for Elimatta will require the partial relocation of some public roads.	Noted
18-4	Northern Energy Corporation Ltd	· The proposed WJV mining leases restrict use of the most direct route between the Elimatta Project and the SBR including, in part, an existing public road corridor. This has required Elimatta Project to identify and utilise an alternative route to the north of the proposed WJV mining leases. The alternative route overlies exploration tenements held by Xstrata. · The Elimatta Project will also require the relocation of a public road the Bundi Ryall’s Road away from the proposed mining area. · The close proximity of the proposed WJV and Elimatta mining areas is likely to result in each impacting, in part, on the same local road networks. · The Elimatta Project Development Schedule is planned around first production being available for railing to Wiggins Island Coal Terminal at Gladstone from mid 2012. This aligns with the publicly stated development schedules for the Wiggins Terminal Project, the Surat Basin Rail Project and the Moura Rail Line Upgrade Project. · The Elimatta Project has coal resources to support an operational mine for a "life" greater than 20 years, plus construction and decommissioning time.	Noted
18-4	Northern Energy Corporation Ltd	Suggested solution: With this submission NEC wishes to highlight an area of common interest to both projects where cooperation could benefit all parties involved and the local community. · Xstrata as manager for the WJV and NEC cooperate to achieve a s transport corridor option suitable to both projects. · Xstrata and NEC work cooperatively together to minimise the impact of the Elimatta Transport product corridor route on the respective projects and the surrounding community. ·Xstrata and NEC combine their activities for public road diversion in areas common to both projects to provide an efficient alternative route network in the vicinity of the two projects.	Noted
18-5	Northern Energy Corporation Ltd	Terms of reference – 1.3.2: Project rationale – Relationship to other projects. and Vol 1, Book 2, Chapter 2, Section 2.17.5 – Northern Energy – Elimatta Project Issue: NEC is developing the Elimatta Project, an open cut coal mine of 4.0 – 5.0 Mtpa product capacity – see the Elimatta Project Summary attached. Issue: · To maximise utilisation of the coal resource within EPC 650 NEC wishes to locate mine infrastructure and some overburden from mining activities to the east outside but adjacent to the area of the EPC and within the boundaries of the rural properties most affected by the project. This will allow full extraction of the open cut resource which would otherwise be restricted by the area taken by infrastructure and spoil inside the EPC boundary.	Noted
18-5	Northern Energy Corporation Ltd	· The EPC boundary coincides with the boundary of the proposed mining lease for the project. NEC proposes to make an application for a Mining Lease for Infrastructure Purposes for that area outside the EPC boundary it wishes to utilise – area that is currently held under an Exploration Tenure by Xstrata (EPC859). · The Elimatta Project has coal resources to support an operational mine for a “life” greater than 20 years, plus construction and decommissioning time.	Noted
18-5	Northern Energy Corporation Ltd	Suggested solution: With this submission NEC wishes to highlight an opportunity for cooperation between the projects. NEC propose: · Xstrata as manager for the WJV and NEC cooperate to reach an agreement whereby a ML application can be made within an area immediately adjacent to the Elimatta Project, but on Xstrata’s exploration tenement. NEC proposes to locate the CHPP and related mine infrastructure outside EPC 650 to maximise resource utilisation on the Project site. Location of the infrastructure immediately adjacent to EPC 650 will also eliminate Elimatta’s alternative option of locating the CHPP 5 km to the north, on EPC1172, thus reducing overall environmental and community impacts of the Elimatta Project.	Noted
19-1	Lethbridge Bros.	We are Primary Producers raising beef cattle in an extended family operation. Our holdings of Aqua Park, Yo Yo, Keys, Lynd Range and Cadeilia are all reliant on bores for a safe and secure water supply. Over a number of years we have invested heavily in drought proofing our properties with extensive watering systems and are reliant on these supplies from bores to water both homes and stock.	Noted
19-2	Lethbridge Bros.	We are very concerned that proposed drilling, mining and any major extraction of water from bores for the purpose of mining has the potential to (1) Lower the water table making it difficult and/or too expensive for us to access the water. (2) Contaminate our present excellent quality water supply, through the mixing of water from toxic strata. If either of these problems were to occur, they would seriously diminish country, widely acknowledged as some of the finest and safest cattle grazing land in Australia. With the concerns of climate change and the world’s already shortage of food, our long term productivity MUST be preserved at all cost.	Response: Refer to Supplementary EIS Volume 1, sections 10.5, 10.6.2, and 10.8.
19-3	Lethbridge Bros.	This area has been grazed since shortly after Ludwig Leichardt’s expedition in 1844 and there is no reason to suggest that productivity, through grazing, could not continue for another 1000 years or more. The Wandoan Coal Project MUST NOT be allowed to jeopardize that potential. As a family operation, we pride ourselves on working under methods of best practice and wish our concerns to be considered.	Response: Refer to Supplementary EIS Volume 1, sections 9.5.7 and 22.5.

Submission Number	Submitter	Submission	Response
20-1	Wandoan District Liaison Committee	Introduction This submission is made by the Wandoan District Liaison Committee (WDLC) on behalf of all the communities in Wandoan, Guluguba, Grosmont and surrounding areas. The WDLC is made up of community members who nominated to the group with the objective of providing improved information flow to and from all energy resource and related project proponents, Local, State and Federal interests in these projects, and the people and businesses that make up our communities, The WDLC acknowledges the efforts of those people who have read, discussed and provided comments to the committee regarding the Environmental Impact Statement (EIS). Where these have been included, permission has been granted for such use. This submission in no way replaces any individual or group submissions, but seeks to complement and reinforce their content.	Noted
20-1	Wandoan District Liaison Committee	Comments The submission does not purport to be exhaustive nor to have identified every issue of concern to the community. The EIS is far too big and complex for that, and the committee doesn't contain explicit scientific expertise. We have sought to identify items which are common to all of an interest group, across several interest groups, or the whole community. Where we believe there is a solution, we have included this. There are a number of general areas which will be discussed in the preamble, as well as specific points from the EIS which will be addressed in the tables following. The committee is very concerned with being expected to comment on an EIS in which key points such as changes to proposed road re-alignments and the addition of extra pits do not even appear. Since any Supplementary EIS does not allow for review and comment, these unspecified alterations and additions will become fait accompli with no public input. (see concerns regarding Frank Creek and any similar pit).	Noted
20-1	Wandoan District Liaison Committee	Regarding the positive aspects of the proposed development, none of these can occur prior to, nor independently of, strong community belief and support. Commitments in the EIS are too often implicit, general and/or qualified, negating their value or leaving room for suspicion and distrust In the event that the environmental amenity or even just the perception of it are negative, most of the positives from this project will be wasted and lost for Wandoan, Guluguba and Grosmont, and thus much also of the positives for the district	Noted
20-2	Wandoan District Liaison Committee	Recommendation: Automatic freedom for existing families to remain and businesses to continue to operate on generous financial terms until the staged mining program requires them to move. To address the flexibility issue (for the proponent) and the risk of too short a notice period (for the resident/business) - use of "achievement-" rather than calendar-based milestone to determine when vacant possessions is required	Response: Refer to the Supplementary EIS, Chapter 6 Project Operations, section 6.10.
20-2	Wandoan District Liaison Committee	Recommendation: Telephone- the replacement needs to allow at least the same quality and speed of internet as being provided by the present service. This would be addressed by installation of separate two way satellite internet connections. Power- existing power SWER systems should be upgraded to reflect any additional load so that existing and new installations are not affected. Dwellings and installations currently with power and/or telephone be connect to a replacement service if leased back Upon decommissioning, services such as power and telephone should be re-established as a rehabilitation measure, on each parcel of land to be offered for sale by the proponent.	Response: Refer to Supplementary EIS Volume 1, sections 6.6.8 and 6.6.9.
20-3	Wandoan District Liaison Committee	2. Issue: Social and Economic- impact of a "vacant possession" model from commencement until completion of the project -Loss of many years of progressive community (social) reconstruction -Loss of many years of progressive economic reconstruction -A second demographic shock when (we suppose?) the project area is released in its entirety, and possibly in one big lump -As in #1 above, the magnified impact if the completion date is delayed for any reason Recommendation: Progressive re-release of land, also on based on achievement milestones, and in parcel sizes appropriate for the local authority- approved activity. Upon decommissioning, services such as power and telephone should be re-established as a rehabilitation measure, on each parcel of land to be offered for sale by the proponent	Response: Refer to Supplementary EIS Volume 1, sections 6.6.8, 6.6.9 and 6.10.
20-4	Wandoan District Liaison Committee	3. Issue: Services- e.g. power, telephone -Where "landline" telephone service must be replaced within the MLA or because of the project, if the replacement is HCRC radio, there may be severe impact on internet speeds and reliability -Where power supply must be replaced within the MLA or because of the project, existing SWER (single wire earth return) lines which may be used to deliver this may be negatively impacted by any resultant additional load. These include outlying community bores as well as homes and farm businesses -Where leaseback areas have power or phone interrupted they will be virtually unable to operate -Where the proponent chooses not to re-establish such services within the MLA, the prohibitive cost of such services for any potential new owner post-project	Response: Refer to Supplementary EIS, sections 6.6.8 and 6.6.9.
20-4	Wandoan District Liaison Committee	Recommendation: Telephone- the replacement needs to allow at least the same quality and speed of internet as being provided by the present service. This would be addressed by installation of separate two way satellite internet connections. Power- existing power SWER systems should be upgraded to reflect any additional load so that existing and new installations are not affected. Dwellings and installations currently with power and/or telephone be connect to a replacement service if leased back Upon decommissioning, services such as power and telephone should be re-established as a rehabilitation measure, on each parcel of land to be offered for sale by the proponent.	Response: Refer to Supplementary EIS, sections 6.6.8 and 6.6.9.
20-5	Wandoan District Liaison Committee	4. Issue: Access -Closure of Grosmont road early in mine development causes high flood road access to be lost for Yeovil, Grosmont and Booral areas. This poses serious human safety and health issues. In flood season Sandy Creek at Taroom is not open for sometimes weeks, Horse and Mud Creeks to the west block that access back to the Bundi Road. -Due to the closure of Grosmont Road, the wide crossing over Woleebee Creek will be closed. Wide wheel machinery, (headers etc.) and wide machinery cannot cross Woleebee Bridge on Jackson Road, or Juandah Creek on Yeovil or Booral Road. -Stock routes to be closed are described as inactive, but have had multiple mobs and hundreds of travelling stock across them in the past several years. If present widths are not re-instated with any road relocation, the camping and water reserve preserved, and water points added on the replacement roads, travelling stock access will be lost, and recent investment in watering points (Bundi Road) will be wasted.	Response: Refer to Supplementary EIS, sections 6.6.2 and 8.6.6.
20-5	Wandoan District Liaison Committee	Suggested solution: -Juandah Creek crossing on Booral Rd, including adjacent gullies be raised to at least the bank height to replace the loss of health and safety access during flood times that were available via Grosmount Road to Bundi and Jackson Roads; -Bridge of suitable width to take wide wheel based machinery, (headers etc) and wide machinery, be constructed over Woleebee Creek on Jackson Road and bridge of sufficient width constructed over Juandah Creek on either Booral Road or Yeovil Road. -A concrete causeway and gravelling of the banks of Juandah Creek at Booral Road, and if needed, gravel causeways across adjacent gullies to replace the loss of wide machine access; -Surveys of relocated roads to be the same width as current stockroutes that will be lost, including widening of existing surveys where these are moved to current road surveys; replacement roads be officially made stock routes; and travelling stock water point/s be built on these roads -camping and water reserve to be preserved or replaced with equivalent Where words or phrases of qualification are used in defining an outcome the criteria which will decide whether or not such discretion will be used, an (or at least) the proposed alternative outcome, need to be included. If not, then such qualifications should be removed. The phrase "in keeping with company policy" has no date on it, and thus the outcome will be governed by company policy at the time of the action described.	Response: Refer to Supplementary EIS, sections 6.6.2 and 8.6.6.
20-6	Wandoan District Liaison Committee	5. Issue: Outcomes -Use of words and phrases of qualification, such as "should" and "where practicable", and "in keeping with company policy". These place the outcome thus qualified entirely at the discretion of the proponent. -No explanation of the trigger points at which such discretion would be used, nor example of what alternative outcomes would take their place. This negates or devalues the outcomes being described. Suggested solution: Where words or phrases of qualification are used in defining an outcome the criteria which will decide whether or not such discretion will be used, and (or at least) the proposed alternative outcome, need to be included. If not, then such qualifications should be removed. The phrase "in keeping with company policy" has no date on it, and thus the outcome will be governed by company policy at the time of the action described.	Noted

Submission Number	Submitter	Submission	Response
20-7	Wandoan District Liaison Committee	6. Issue: Ambiguity -As an example- The Southern boundary of MLA appears to be the only not defined in the EIS, leading to ongoing uncertainty, and continued uncertainty about the eventual choice of location of the Wandoan-Jackson Road. This ambiguity makes the community as a whole somewhat uneasy, and make the difficult task of credible comment on the EIS even more difficult. -Proposed new routes for relocated roads and new sites for pits which do not appear in the EIS means that the community will have no EIS response process for these changes and additions Recommendation: If the items not specified, such as the MLA southern boundary, are indeed open to ongoing change, the EIS needs to make this clear, rather than to remain silent. Likewise the position of roads needs to be removed, if still open to further changes, state this.	Response: Refer to Supplementary EIS Volume 1, sections 6.1 and 6.6.2.
20-8	Wandoan District Liaison Committee	7. Issue: Urban Impact -Overall safety, health, environmental amenity and perception concerns for both current and potential community members -Proximity of Frank Creek pit to the town area - Light pollution, the "photo" examples in EIS are given for a time when this pit will have been finished, - Air quality there is no chemical analysis of dust which will settle on the buildings and plants, be breathed by all residents and drain into the house tanks, health risks from the dust itself as well as the chemical/elemental composition of such dusts and resultant damage to the built environment- -Noise pollution, the reversing sirens on machines will be of significant and greater impact on the denser night air, as will the general machine noise -Foundations, building foundations will have already been affected before this can be observed or detected	Noted
20-8	Wandoan District Liaison Committee	Recommendation: There is no remedy retrospective nature of any foundation monitoring. The dust analysis should have been in the original document as should the appropriate year of light impact images. The piercing nature of the reversing sirens has no remedy either. Need explicit safeguards for the community, especially our children at home and at school from health effects of such as dust, both particulate impacts and those from the chemical/elemental contents of those particulates, and the corrosive nature of such dusts on the local built environment. Community input has led to the committee to the view that the Frank Creek pit should be abandoned, along with any future proposed pits with the same or similar separation distances. This distance to be a radius of 2km from the town. Supporting case for this is not attached but will be made available if required.	Response: Refer to Supplementary EIS Volume 1, sections 6.3.2, 13.3.2, 13.5.3, 13.6.2, 15.5.3, 15.6.3, 16.5.2, 16.6.2, 19.4, 19.5.3, and 19.6.3.
20-9	Wandoan District Liaison Committee	3.3.14 Issue: The following stack route infrastructure is located within the Project area: • unnamed stock route located adjacent to the Leichardt Highway (Stock route number: M423 [inactive minor stock route]) •Jackson -Wandoan Road (Stock route number U708 [inactive stock route]) • Bundi Road (Stock route number: U734 [inactive stock route]) •Camping and War Reserve R.15(Lot 58 on FT1013). Suggested Solution: The descriptions "minor and inactive" are unfamiliar. The Jackson-Wandoan and Bundi road routes have been used many times for many hundreds of stock over the past several years.	Response: Refer to Supplementary EIS Volume 1, section 3.3.14.
20-10	Wandoan District Liaison Committee	6.6.2 Issue: A stockroute is associated with the Wandoan-Jackson Road and will be re-established with the road relocation following consultation with Dalby Regional Council and Department of Main Roads. Suggested Solution: Both the Jackson-Wandoan and Bundi Road stock routes to be re-established. Surveys of relocated roads to be the same width as current stock routes that will be lost, including a widening of existing surveys where these are moved to current road surveys; replacement roads to be officially made stock routes and travelling stock water point/s to be built on these roads. Camping and water reserve to be either preserved or replaced with equivalent.	Response: Refer to Supplementary EIS Volume 1, section 8.6.6.
20-11	Wandoan District Liaison Committee	6.6.2 Issue: Road closures and relocations. Significant issues on health, safety, wide machinery etc. Maximum flood heights and changes are not relevant when the closures takeaway access to a bank-height bridge over a smaller watercourse (Jackson-Wandoan Road over Woleebee) and replace it with low-level bridges over a major watercourse (Booral and Yeovil bridges over Juandah). The EIS is silent on the loss of wide machinery access through closure of Grosmont Rd crossing of Woleebee Creek. Suggest Solution: Juandah Creek crossing on Booral Road, including adjacent gullies, be raised to at least the bank height to replace the loss of health and safety access; a concrete causeway and gravelling of the banks of Juandah at Booral Road and, if needed, gravel causeways across adjacent gullies to replace the loss of wide machine access (sic).	Response: Refer to Supplementary EIS, Volume 1, Chapter 6, section 6.6.2
20-12	Wandoan District Liaison Committee	6.3.3 Issue: Typically, a single final void will remain after completion of mining for each pit. The final void will be formed by reducing the side slopes of the pit highwall and adjacent overburden stockpiles to infill the void, bring the pit floor up towards natural topographical surface. Depths of final voids will vary with the volume of material available at each pit for infilling. Suggested Solution: No final void to remain, use overburden to fill final pit.	Response: Refer to Supplementary EIS Volume 1, sections 6.4.4 and 25.4.6.
20-13	Wandoan District Liaison Committee	6.8 Issue: Depths of final voids will vary with the volume of material available at each pit for infilling. — Rehabilitation of the mine will be progressive throughout the operation and decommissioning of the mine, and considers many elements addressed throughout the EIS, including but not limited to, mine scheduling, overburden and soils management, water management and terrestrial and aquatic ecology. Decommissioning will be phased over the life of the mine with the majority of decommissioning activities occurring during the mine closure phase. Suggested solution: The mine should be decommissioned and rehabilitated in phases. The rehabilitated land should be released for resale as soon as possible and made available in appropriate for the area sized parcels of land.	Response: Refer to Supplemenetary EIS Volume 1, sections 6.10 and 25.4.7.
20-14	Wandoan District Liaison Committee	6.9.1 Issue: The WJV will develop and implement a Biodiversity Offset Strategy as the primary ameliorative measure to minimise the residual impact of the Project on biodiversity, the Strategy will aim to provide a net improvement in ecological value as a result of the Project, including providing protection for an equal or greater area of similar habitat as that lost due to the Project. Suggested Solution: Concern regarding the economic rehabilitation after the completion of the project with the partial loss of viable land.	Response: Refer to Supplementary EIS, Volume 1, sections 17A.5, 17A.6, and 22.5.
20-15	Wandoan District Liaison Committee	6.9.2 Issue: Establishment of the proposed Wandoan airstrip (one of two air transport options under consideration) for community and WJV use provides the opportunity for quicker travel times including emergency travel to Brisbane and other major coastal centres by the local community and WJV operational employees. Suggested Solution: The upgrade of the Wandoan airstrip will meet the goals of improving the airstrip facilities. However if the airstrip is located towards Taroom this will greatly reduce the benefit to the town particularly in an emergency situation.	Response: Refer to Supplementary EIS Volume 1, section 6.6.4.
20-16	Wandoan District Liaison Committee	9.3.7 Issue: Under the Taroom Shire Planning Scheme almost all land within the Project area, other than along creek lines, is classified as Class A agricultural land. Suggested Solution: The use of pre-mining qualities of soil and landform for the determination of standards for post mining rehabilitation.	Response: Refer to Supplementary EIS Volume 1, section 9.3.7, 9.3.9, 9.5.6, 9.5.7, 9.6.5, 9.6.6, 9.6.7, 9.6.8 and 9.7.
20-17	Wandoan District Liaison Committee	9.3.7 Issue: Downfall, Teviot and Rolleston soils, occurring on the lower slopes were rated as Class 4 due to high alkalinity within 0.6m of the soil surface resulting in nutrient deficiency. Some cropping currently occurs within this Class 4 land, however, long term sustainability is limited due to low nutrient and high alkalinity conditions, shallow rooting depth, and heavy application of fertilisers. Suggested Solution: Justification of the statement of heavy application of fertiliser needs to be addressed.	Noted
20-18	Wandoan District Liaison Committee	9.5.6 Issue:" Final voids will be unsuitable for agricultural use, generally being Class 5 for cropping and cattle grazing". The non rehabilitation of final voids will be down grade the land value. Suggested Solution: The investigation of oxidised coal for use in final voids should be investigated/incorporated into the project.	Response: Refer to Supplementary EIS Volume 1, sections 6.4.4, 9.5.6, 9.6.5 and 25.4.6.

Submission Number	Submitter	Submission	Response
20-19	Wandoan District Liaison Committee	11.6.1 Issue: Weed infestation Measures to minimise weed infestation will include washdown of off-site equipment prior to use on site, ensuring only clean imported fills and soils are brought onto site, and appropriate application of herbicides. As part of the Plan of Operations and Biodiversity and Land Management Plan, a Weed Management Plan will be developed, implemented and audited across the MLA areas and gas supply pipeline alignment. The plans will establish requirements for rehabilitation and revegetation, so that vegetative groundcover is established that will be self regenerating and provide sustainable erosion and weed control. Suggested Solution: If washdown of off-site equipment occurs on-site what is proposed to contain material which is washed off? What assumptions are made about possible infestation en route to the site? Should include a policy of washdown at an approved facility en route to the site as well. Mapping of existing weed infestation should be carried out to ensure containment of existing weeds within existing localized specific area. Refer Landcare weed maps.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2.
20-20	Wandoan District Liaison Committee	11.6.1 Issue: Wandoan Township is a service centre for the grazing, cropping, and Umber activities in the region. The Wandoan Township is characterised by: • urban and residential development typically to the north of North Street • scattered industrial development in the vicinity of Royd Street • commercial development clustered in the vicinity of Zupp Road and Royd Street Suggested Solution: The loss of agricultural industries to the area greatly increases the risk of loss of agricultural related businesses. The WJV needs to increase the amount of local contribution to the level that is listed as the regional contribution.	Response: Refer to Supplementary EIS Volume 1, sections 21.6 and 21.8.
20-21	Wandoan District Liaison Committee	1.5.6 Issuer: For Frank Creek Pit: -operations are examined using blasting of entire bench height and dragline to remove overburden, operating 24 hours a day, seven days a week, with location of the dragline at the southern end of the pit -operations are examined using blasting of entire bench height and dragline to remove overburden, operating 24 hours a day, seven days a week, with the location of the dragline in the middle of the pit towards end - operations are examined using blasting of partial bench height of approximately 10m, and trucks and shovels/excavators to remove overburden, across the last third of the pit, operating 24 hours a day, 7 days a week - operations are examined using blasting of partial bench height of approximately 10m, and trucks and shovels to remove overburden, across the last third of the pit, operating 12 hours a day, 7 days a week. Suggested Solution: The concerns such as vibration, odour, dust, noise and visual pollution of Frank Creek Pit being located next to the town of Wandoan are not adequately addressed. The appropriate solution is the non mining of Frank Creek pit and any future proposed pit with (he same or similar separation distances, such separation distance to be a minimum of 2 kilometres radius from the town.	Response: Refer to Supplementary EIS Volume 1, section 6.3.2.
20-22	Wandoan District Liaison Committee	13.2.2 Issue: Particulate matter and dust deposition matter Table 13-1: Impact assessment criteria for pollutants Suggested Solution: The allowable threshold levels are too high and should be reduced by at least half. The quantity of pollutants at any given time, rather than an averaged figure over an arbitrary time period, determines its harmfulness. The averaging for measuring the quality should be reduced, Annual averaging appears unreasonable and should be reduced to more reasonable averaging requirements..	Response: Refer to Supplementary EIS Volume 1, section 13.2.2 and 13.2.3
20-23	Wandoan District Liaison Committee	13.6.2 Issue: A minimum criteria level for the implementation of a trigger action response protocol (TARP) has been set to 80% of the 24 hour PM10 goal. Where once ambient levels of PM10 exceed 120 ug/m3 the TARP is activated, the source is identified and appropriate mitigaiton and management steps are taken until levels return to below the trigger criteria. Suggested Solution: It is felt that the trigger levels for action response protocol is too high before action is taken. The trigger levels for intervention need to be greatly reduced to a more appropriate level.	Response: Refer to Supplementary EIS Volume 1, section 13.6.2.
20-24	Wandoan District Liaison Committee	2.13.2 Issue: Option 3, which is proposed to be co-located with the Surat Basin Rail Project main line, is the shortest pipeline option (24.03 km) has the least associated (preliminary) costs and may potentially affect the second largest area of regional ecosystems. Co-location of infrastructure is considered to create opportunities to reduce cumulative impacts. For example co-locating the gas supply pipeline with the Surat Basin Rail main line will not Impact on any additional landowners or properties within the study area, will not create any further land severance issues, will not affect any additional areas of good quality agricultural land, will create opportunity to centralise ancillary infrastructure such as access points and maintenance tracks and will reduce the potential impacts associated with construction such as interference with property accesses and traffic control and delays on local roads. Suggested Solution: An Agreement with the chosen gas supplier and Wandoan Joint Venture (Xstrata) to provide access to gas to the town of Wandoan. This would reduce the impact of a pipeline on community and provide benefits to the community. The Option 3 is preferred because of the efforts to reduce the impact on landholders by following existing easements.	Response: Refer to Supplementary EIS Volume 1, section 6.6.9.
20-25	Wandoan District Liaison Committee	2.15 Issue: In relation to air transport, the WJV has reviewed the potential use of two local airstrips (Wandoan and Taroom) including the potential for development of a greenfield airstrip In the Wandoan district. The WJV determined that the airstrip needed to have, or at least have the capacity, to cater for Dash 8 400 series (or equivalent) aircraft. Neither the existing Ta room nor the Wandoan airstrips have that capacity although it was determined that Taroom Aerodrome was capable of expansion to accommodate Dash 8 aircraft, Due to land constraints, the existing grass airstrip at Wandoan was not capable of the required expansion and so was not considered further. The WJV is considering the development of a greenfield airstrip an or adjacent to the MLA areas, The new airstrip would also be available to the general public, Solution: Remove all references to the Taroom airstrip. Make Wandoan the location of the upgraded airstrip with the airstrip available to the public far use and enjoy the benefits of the improved airstrip at Wandoan.	Response: Refer to Supplementary EIS Volume 1, section 6.6.4.
20-26	Wandoan District Liaison Committee	6.6.1 Issue: To accommodate WJV staff in Wandoan, it is proposed that: -the WJV will provide fifteen houses and ten two-bedroom duplexes for its staff in Wandoan, with housing for a total of approximately 35 personnel Suggested solution: Like to see this housing built and made available in the first year of construction with further housing added in following years. The level of housing mentioned should be the base level with the amount of housing made available in Wandoan increased in subsequent years.	Noted

Submission Number	Submitter	Submission	Response
20-27	Wandoan District Liaison Committee	5.2.3 Issue: Infrastructure to be constructed during the two years of construction (noting that some construction works will continue into the operational years of the Project) includes: -CHPP -overland conveyor and first dump station -product coal handling and train load out -rail spur -construction accommodation facilities as construction workforce increases -permanent accommodation facilities -residential subdivision and housing in Wandoan -haul roads -light and heavy vehicle internal roads -main gate and security building -mine infrastructure area -draglines and dragline erection facility -telecommunications, including new mobile phone tower -power supply and generation -water supply and management facilities, including raw water supply and storage, initial tailings dam -explosives storage and preparation facilities. Suggested Solution: The timeline is vague for residential subdivision and housing in Wandoan. The communities are losing families associated with takeover of properties by the mine site and the community needs people in the town to reboost the population in the town of Wandoan Definite early time line required.	Reponse: Refer to EIS Volume 1, section 6.6.1.
20-28	Wandoan District Liaison Committee	5.3.1 Issue: The WJV will obtain all necessary approvals and commence detailed design and procurement for the Project accommodation facilities, to ensure that they may be available for the construction workforce as early as is practicable in Year -2, and to minimise the impact on the local accommodation/rental market. Suggested Solution: The use of the word “may” throughout the section has no definitive answer. The community would feel more confident if it had definitive answers. The workforce will be able to become part of the community only if the accommodation facilities are located much closer to the town, see point 21.8 below.	Noted
20-29	Wandoan District Liaison Committee	5.3.1 Issue: Accommodation facilities The WJV will obtain all necessary approvals and commence detailed design and procurement for the Project accommodation facilities, to ensure that they may be available for the construction workforce as early as is practicable in Year -2, and to minimise the impact on the local accommodation/rental market. Upgrade of potable water treatment facilities Early works may include commissioning of detailed design to undertake upgrade of the Wandoan water treatment facilities, required to meet the construction and operational needs of the Project, as well as increased population within Wandoan. Pipeline may also be ordered at this time. The WJV will work with the Dalby Regional Council to establish the best delivery method and the timing of this upgrade. Upgrade of wastewater treatment facilities Early works may include commissioning of detailed design to undertake upgrade of the Wandoan sewerage treatment facilities, required to meet the construction and operational needs of the Project, as well as increased population within Wandoan. Pipeline may also be ordered at this time. The WJV will work with the Dalby Regional Council to establish the best delivery method and the timing of this upgrade. Suggested Solution: This item refers to a large amount of infrastructure which is owned by Council and the constant referral to “may” needs to be removed to increase the surety of the items. That the project be subject to agreement between Dalby Regional Council and WJV on all facilities such as the airport, potable water, waste management and sewerage	Response: Refer to Supplementary EIS Volume 1, section 6.1.
20-30	Wandoan District Liaison Committee	Executive Summary Issue: The WJV has committed to the following local infrastructure improvements, subject to agreement between the WJV and Dalby Regional Council; -assisting council to develop a public airstrip near the Wandoan township or upgrade of the Taroom aerodrome, which will provide the opportunity for improved access to other major centres, employment opportunities social activities and emergency services -assisting Dalby Regional Council develop a new multi-user municipal waste arid recycling facility for the Wandoan area to be owned and managed by Council -upgrading the Wandoan potable water treatment facility, including development of a new cooling tower -upgrading the existing Wandoan wastewater treatment plant facilities to increase the performance of the existing facilities. Suggested Solution: That the project be subject to agreement between Dalby Regional Council and WJV on all facilities such as the airport, potable water, waste management and sewerage.	Response: Refer to Supplementary EIS Volume 1, section 6.1.
20-31	Wandoan District Liaison Committee	21.2 Issue: It is anticipated that that WJV will provide 15 houses (four bedroom) and ten duplexes (two bedrooms) or equivalent for its staff in Wandoan. These will house 35 staff and some of their families. Suggested Solution: Make housing available to house 35 families to replace the displaced — families from the school and community. It would be suitable for this housing to be the starting point and then expanded on over the period of the project.	Noted
20-32	Wandoan District Liaison Committee	21.8, point 8 Issue: Incentive packages developed to encourage Project employees to move to the study area. This would help to grow the local economy and strengthen business opportunities. A sense of belonging and familiarity would also be established for some members of the workforce within the community. Suggested Solution: Include a target population figure of a minimum of 30% of project employees other than existing residents to reside in the Wandoan District. The community integrity achieved by addition of families to the town population Will be from such as kindergarten and school enrolments and the flow-on through to all services from such things.	Response: Refer to Supplementary EIS Volume 1, section 21.6.
20-33	Wandoan District Liaison Committee	22.3.5 Issue:…The 2006 Census data indicated that there are a higher proportion of full-lime workers in Wandoan (urban centre locality) and the former Taroom, Chinchilla, Murilla and Ta room Shires compared to Queensland, suggesting that commerce and industry activity In these localities are above the state average. There is, however, a smaller percentage of part-time employment for the Wandoan regional compared to Queensland Overall... Suggested Solution: The low unemployment and high full time employment rate show that the community is well catered for in these areas. WJV could promote part-time work opportunities perhaps working things such as school hours etc.	Response: Refer to Supplementary EIS Volume 1, section 21.8.
20-34	Wandoan District Liaison Committee	25.4.6 Issue: Typically, a single final void will remain after completion of mining for each pit. The banks of the final void (i.e. the highwall, lowwall and endwalls) will be reshaped to achieve long term geotechnical stability. Ramps will be levelled (sic) to similar grades as the surrounding slopes. Suggested Solution: The leaving of final voids will be avoided. This will also help to negate overburden piles as well as increase the safety of the rehabilitated land.	Response: Refer to Supplementary EIS, sections 6.4.4, and 25.4.6.
20-35	Wandoan District Liaison Committee	25.4.7 Issue: Rehabilitation monitoring Monitoring and assessment of progressive rehabilitation processes will be undertaken throughout the planning, construction, operational and decommissioning phases of the Project. If monitoring and assessment results indicate that the rehabilitation objectives may not be achieved, then the rehabilitation strategy will be modified. Suggested Solution: Rehabilitation monitoring Monitoring and assessment of progressive rehabilitation processes will be undertaken throughout the planning, construction, operational and decommissioning phases of the Project. If monitoring and assessment results indicate that the rehabilitation objectives may not be achieved, then the rehabilitation strategy will be modified, to ensure that rehabilitation objectives are met.	Response: Refer to Supplementary EIS Volume 1, section 25.4.7.

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20-36	Wandoan District Liaison Committee	25.5.2 Issue: CSM gas and CSM water supply pipelines Decommissioning will include the following options: -abandonment where the pipeline is purged, and physically disconnected from the point of supply, and sealed (capped) at both ends -removal — where pipelines are purged and removed in entirety from the pipeline easement -beneficial re-use — where sate or donation of the infrastructure to a third party occurs for other beneficial use. Suggested Solution: Assuming that the gas pipeline is also used to supply the town of Wandoan responsibility and ownership of the gas pipeline would revert to the local government.	Response: Refer to Supplementary EIS Volume 1, section 6.6.9.
20-37	Wandoan District Liaison Committee	Executive Summary Item 10 Issue: Progressively construct 15 houses and 10 duplexes (or equivalent) for its staff settling in the Wandoan area. Suggested Housing- Construct houses for 35 families ready for commencement of the project with a view to increasing housing as the project progresses.	Noted
20-38	Wandoan District Liaison Committee	Executive Summary Item 10 Issue: Progressive rehabilitation will be undertaken over the life of the mine to minimise the cleared footprint of the mine at any one time Suggested Solution: To include progressive release of land back to agriculture in appropriate sized properties.	Response: Refer to Supplementary EIS, Volume 1, section 6.10 and 25.4.7.
20-39	Wandoan District Liaison Committee	Executive Summary Item 10 Issue: Developing a public airstrip near the Wandoan township or upgrading the existing Taroom airstrip. Suggested Solution: Remove the wording “or upgrading the existing Taroom airstrip”.	Response: Refer to Supplementary EIS Volume 1, section 6.6.4.
20-40	Wandoan District Liaison Committee	Executive Summary Item 10 Issue: In relation to non-Indigenous cultural heritage, a range of mitigation measures have been developed in consultation with the local Wandoan community and the Juandah Historical Society, and will be incorporated into the Project EMP to minimise the Project’s impacts on identified items, This may involve assisting in the development of a community based oral history study to document the local history of Wandoan and to mitigate against the impact of the on the historical knowledge within the local community. Suggested Solution: To include safe removal or preservation of identified culturally important buildings and objects. The technical report seems to focus on physical items, and misses the significance of eg, both the incursion and control of the prickly pear, and the broader Brigalow Development Schemes, Needs to explicitly commit to a broad historical program, not just physical preservation of a few symbolic structures.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Encouraging selection, closer settlement, and Chapter 20B, section 20B.6.
20-41	Wandoan District Liaison Committee	25.4.7 Issue: Rehabilitation Monitoring Monitoring and assessment of progressive rehabilitation processes will be undertaken throughout the planning, construction, operational and decommissioning phases of the Project. If monitoring and assessment results indicate that the rehabilitation objective may not be achieved, then the rehabilitation strategy will be modified. Non-compliance with the established objectives will trigger a review of processes such as planning and design, and/or repair and maintenance of failed rehabilitation work. As rehabilitation technologies, strategies and monitoring techniques change and/or are improved over time, the WJV will regularly review and update the Project's rehabilitation and monitoring procedures to include the most effective processes and strategies. Suggested Solution: Wandoan Joint Ventures work in co-operation with Taroom Landcare to do trials on best practice rehabilitation and to jointly monitor rehabilitation.	Noted
21-1	[redacted]	Comment: It seems to come down to the short term gain of an estimated 30 years (Wandoan Coal Project Mine Life) compared to the long term sustainability of prime agricultural land. Present production vs potential production.	Response: Refer to Supplementary EIS Volume 1, section 22.5.5.
21-2		8.2.2 Temporary Road closure and Realignment- Comment: The biodiversity in a stockroute is a common corridor for wildlife and endangered biodiversity species. The replacement of these corridors needs to take this into consideration. Weed control has been upkeep in this region, with various past projects completed and continued work in this area should be maintained to reduce and eliminate the spread of weeds (declared and national significance weeds). Solutions: A Stock route management plan should be established to deal with issues like fire control, weed management and biodiversity offset for the timber on the reserve. A Weed Officer and/or Stock Route Manager should be employed by the Wandoan Coal Project to control/manage the stock route and associated issues.	Response: Refer to Supplementary EIS Volume 1, section 8.6.6.
21-3		10.3.1 MLA Areas Soils- Comment: Re establishing soil organic matter and humus would be more effective than physical soil conservation work- manage topsoil more naturally. Solution: Investigate and implement organic/Natural methods of rehabilitation to use on final voids. Taroom Shire Landcare has experience with using biological methods of restoring soil health by using natural processes to increase soil carbon and nutrient cycling. WJV work in cooperation with the local community organisations (eg Landcare) for rehabilitation trails which are jointly monitored. The uses of fertiliser in the long term recover effort- destroying the soil food web. Physical disturbance during mining will have destroyed soil structure.	Noted
21-4		10.3.1 MLA Areas GQAL- Issue: Concerned about metal poisoning and other contaminants leaching from the surrounding disturbed material. This could have significant impacts on the 'wetland' ecosystem and contaminate downstream flows. Solution: Final remaining void should be filled with overburden from the original dragline. Investigate and implement organic/natural methods of rehabilitation on final voids.	Response: Refer to Supplementary EIS Volume 1, sections 6.4.4, 9.6.3, 11.6.3 and 25.4.6.
21-5		10.4.1 Area and Pipeline Options- Comment: There is potential for landholders to be effected at a greater distance than the 2km distance and if bores are affected how much proof the landholders need to supply to get compensation? Solution: Monitoring should be in and outside the 2km radius, and all complaints about affected bores inside and outside the area investigated to establish compensation to that landholder.	Response: Refer to Supplementary EIS Volume 1, section 10.6.2 and 10.8.
21-6		10.5.1 MLA Areas Assessment of Water Quality- Comment: Locals know that this is from the soils naturally and not from the use of fertiliser. Fertiliser isn't a common practice for this area and there isn't a large area of cropping country either that would be contributed to these elevated results. The results are miss leading and do not tell the true story of the local area. Solution: Do more monitoring, water and soil testing that would support local knowledge. Also contact local organisation (eg Landcare) that could assist with more accurate results from a longer time line.	Response: Refer to Supplementary EIS Volume 1, section 11.3.6.
21-7		10.21 & 9.21.1 Rehabilitation and Decommissioning, and MLA Areas- Concern: The land should be left in a condition that satisfies the local community and surrounding landholders of the MLA area, due to the fact that Xstrata may be the only landholder owning the rehabilitated land. Solution: Consulting with local community groups, organisation (eg Landcare) and surrounding landholders to ensure rehabilitation expectations are met.	Response: Refer to Supplementary EIS, Volume 1, section 25.4.5.
21-8		4.2.9 Community Contact Points- Solution: Community consultation should include the local Landcare group to incorporate local knowledge and environmental information.	Response: Refer to Supplementary EIS, Volume 1, section 21.8.
21-9		6.3.3 Mining Methodology- Solution: Final remaining void filled with the overburden from the original dragline.	Response: Refer to Supplementary EIS, sections 6.4.4 and 25.4.6.

Submission Number	Submitter	Submission	Response
21-10	[redacted]	6.9.1 Project Operations- Environmental considerations in Sustainability- Concern: "Like for Like" - ensure that the rare and endangered vegetation according to the regional ecosystem is replaced and provide corridors for native wildlife. Solution: Consult with local groups to help with accurate details of the biodiversity to ensure the right vegetation is established, especially when replanting vegetation is concerned. The locals have the best knowledge for the appropriate species and practice (sic).	XCQ to undertake further consultation with Landcare Refer to Supplementary EIS Volume 1, Chapter 17A Terrestrial Ecology, section 17A.6.1.
21-11		6.9.1 Project Operations- Environmental considerations in Sustainability- Concern: Parthenium is not mentioned and considering there is isolated outbreaks in the MLA and surrounding area that the Wandoan Coal Project will probably control, it is seen has a high priority to control. Solution: Parthenium should be mentioned and a weed management program established to ensure that parthenium is kept to the isolated outbreaks. The management program should also include declared plants and the weeds of significance.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2.
21-12		6.10 Project Operations-Land Acquisitions- Concern: Fair and open negotiations seem to be occurring in favour of the mine. Lease back price is too high for the landholder to afford to lease back their own land, with strict short leases. Should encourage landholders to stay to help the numbers in local community. All these landholders are leaving and the mining numbers haven't increased business yet leaving a significant gap in the population. Solution: Automatic freedom for existing families to remain and businesses to continue operating on generous financial terms until the staged mining program requires them to move. To address the flexibility issue (for the proponent) and the risk of too short a notice period (for the resident/business) rather than calendar based millstones to determine when vacant possession is required.	Response: Refer to Supplementary EIS, Volume 1, Section 6.10
21-13		8.3.4 Contaminated Land- Concern: The suggestion that land is contaminated and that the mining activities will not affect the land. Contamination isn't as extensive as implied. Solution: More information and background information to explain this contamination where it exists. Register implies that the known contamination sites is limited.	Response: Refer to Supplementary EIS Volume 1, section 8.3.4
21-14		9.3.7 Land Suitability and Agricultural Land GQAL- Solution: The use of premining qualities of soil and landform for the standard of rehabilitation.	Response: Refer to EIS Volume 1, sections 9.6.1 and 9.6.3, and Supplementary EIS Volume 1, sections 9.6.1, 9.6.3 and 9.5.6.
21-15		9.3.7 Land Suitability and Agricultural Lands Land Suitability- Concern: The suggestion that high nutrient values were from fertiliser, when in fact fertiliser sales are minimal. In contradiction high heavy metal levels were attributed to natural leaching. Land disturbed during mining will only see these levels increase. Solution: Removal of heavy application of fertilisers.	Noted
21-16		9.5.6 Land Suitability- Solution: Investigate and implement organic/natural methods of rehabilitation to use on final voids. Taroom Shire Landcare has experience with using biological methods of restoring soil health by using natural processes to increase soil carbon and nutrient cycling.	Noted
21-17		9.5.4 Salinity- Concern: Cumulative salt will have an effect on the roads, especially after 30 year plus of dust suppression. Concerned about the increase salt in the water run off and the soil. When it comes to rehabilitation the area will be highly saline and could cause problems. Solution: Overland flow used for dust suppression in place of CSM water.	Response: Refer to Supplementary EIS, Volume 1, sections 9.6.3, 11.4.4, 11.5.4 and 11.6.5.
21-18		10.2.1 Groundwater- Concern: There is the potential for landholders to be effected at a greater distance than the 2km distance, and if bores how much proof do landholders need to supply to get compensation. Will landholders outside the 2km monitoring sites be compensated? Solution: Monitor bores/groundwater in an outside the 2km radius. All complaints about affected bores inside and outside the area investigated to establish compensation to that landholder.	Response: Refer to Supplementary EIS Volume 1, sections 10.6.2. and 10.8.
21-19		10.3.2 Hydrology- Solution: Need more investigating/monitoring into the ground water aquifers before no correlation can be stated.	Response: Refer to Supplementary EIS Volume 1, section 10.8.
21-20		10.5.2- Potential Impacts Post Mining Concern: Do affected aquifers only include landholders in the predicted 2km affected area? Solution: Monitoring bores for water quality and levels.	Response: Refer to Supplementary EIS Volume 1, section 10.8.
21-21		10.6.2 Operations- Concern: Following from above, does within the MLA surrounding area only include the 2km area. And what is the acceptable level? What if a landholder notices an impact but monitoring has not shown a difference? Will this be investigated and not just dismissed? Solution: Monitoring of bores for water quality and levels. All complaints investigated and compensation established.	Response: Refer to Supplementary EIS Volume 1, sections 10.6.2. and 10.8.
21-22		11.3.6 Surface Water Quality- Concern: Suggests that mining activities will not have any impact on the water quality. The extent of the mining activities will have an effect on the area water quality and quantity. The suggestion that high nutrient values were from fertiliser, when in fact fertiliser sales are minimal. In contradiction high heavy metal levels were attributed to natural leaching. Land disturbed during mining will only see these levels increase. Solution: Suggest water quality monitoring by the WJV and an independent organisation (Landcare, EPA, DNR). Water results to be shared with the local Landcare group to help build on their already existing water quality data. Disturbed soil and stockpiles should be covered with organic matter to protect soil from overland flow.	Response: Refer to Supplementary EIS Volume 1, sections 11.3.6, 11.5.4 and 11.6.1. Water quality monitoring is undertaken by third party organisation (can look at a Joint Sampling Protocol arrangement). Water quality results have been offered to Landcare group (and will continue to be through EIS process and (possibly) online web based system). Disturbed soil and stockpiles are planned for coverage with organic matter as part of mining operations.
21-23		11.6.1 Surface Water Quality Weed Infestation- Concern: Prevent the spread of parthenium and other declared weeds. Solution: Washdown vehicles and equipment from offsite before entering site and before leaving the MLA and surrounding area that the WJV own. Also the parthenium is located in isolated areas and washdown should occur before and after entering clean and infested areas within the mining area.	Response: Refer to Supplementary EIS Volume 1, Chapter 17A Terrestrial Ecology, section 17A.5.2.
21-24		13.7 Residual Impacts- Concern: Due to the size of the mine and the mining activities, it would seem unlikely that there wouldn't be any dust impact to plants. There is no chemical analysis of the dust which will settle on the buildings and plants, be breathed by all residents and drain into the house tanks. Solution: Monitoring should be established around the MLA area to monitor the impact of the dust residual on to plants and vegetation to monitor the effect it has on the grazing quality of cattle. Being predominantly a grazing area it has the potential to significantly impact the cattle industry. Chemical analysis of dust and air quality.	Response: Refer to Supplementary EIS, Volume 1, Chapter 13 Air Quality, sections 13.2.2, 13.5.3 and 13.6.2.

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21-25	[redacted]	15 Noise Concern: The reversing sirens of machines will be of significant and greater impact on the denser night air, as well as general machine noise. Solution: If noise does travel further and is affecting quality of life measures should be put in place to fix this.	Response: Refer to Supplementary EIS, Volume 1 section 15.2.1 and EIS, Volume 1, section 15.6.2
21-26		16.6.2 Operations- Concern: If landholder/people are affected where there are no sensitive receptors, will they be compensated for damage? Solution: Complaints of damage investigated and compensation negotiated.	Response: Refer to Supplementary EIS Volume 1, Chapter 16 Vibration, section 16.6.2.
21-27		17A 4.3 Habitat Fragmentation and Barrier Effects- Concern: There are existing corridors and connectivity, which will be affected by the clearing and removal of vegetation from the riparian areas. The clearing will also affect the population of animals. For example, locals know of koalas that move up and clown the corridors that exist along the creeks in the M1A area. The extensive clearing will affect these koalas and their habitat. The corridors area larger than suggested due to regrowth that was not counted in the study. There are areas of vegetation of significance that is connected to other vegetation corridors that will be affected by the Project. The sheer size of the project and the extent of the clearing will affect the vegetation and habitat and will only increase the edge effects on what vegetation is left. Solution: No mention of biomass or fire management in the biodiversity offset area, would like to see a fire management plan implemented.	Response: Refer to Supplementary EIS Volume 1, section 7.8.
21-28		17A 4.5 Weeds & Pest Species- Concern: The weed section should have been more elaborate due to the size of the project. There should be a more comprehensive weed management chapter that allows the local community to comment Parthenium is not wide spread throughout the MLA area, it is only found in isolated areas that need to be managed accordingly to ensure that parthenium stays isolated and that the treatment of parthenium continues aiming at eradication, There is particular concern about the spread of weeds within the WJV site, especially on land where they will only have temporary use of or additional land they have purchased but are outside the MLA. The area may contain some weeds but there isn't a majority of weeds and parthenium isn't commonly found. Solution: Work with Taroom Shire Landcare based in Wandoan who has up to date weeds information and maps. A weed officer employed by the WJV to manage the MLA area and other land the WJV own. A weed management program with a strict washdown procedure and parthenium section to ensure the region stays parthenium free and the few isolated outbreak stay isolated and treated.	Refer to Supplementary EIS, Volume 1, sections 17A.3.4, and 17A.5.2.
21-29		17A 5.2 Management of Mitigation Measures Concern: Considering that there is parthenium located on the mine site, it would seem appropriate that all vehicles and machinery would be washed on arrival and before departure to ensure the spread of seed is eliminated, Where appropriate seems to leave a window of opportunity to not follow the washdown procedure if not seen appropriate. With parthenium on the site, all vehicles should be washdown before leaving the mining area. Solution: Washdown vehicles and equipment from offsite before entering site and before leaving the MLA and surrounding area that the WJV own. Also the parthenium is in isolated areas and washdown should occur before and otter entering clean and infested areas within the WJV mining area. A weed management program with a strict washdown procedure should be implemented.	Refer to Supplementary EIS Volume 1, Chapter 17A Terrestrial Ecology, section 17A.5.2.
21-30		17A.7 Conclusions Concern: The corridors that are left will probably have a significant impact on the movement of animals. Replacement corridors will only be 2 years old and offsets may not be within the WJV area. What about oil the past environmental projects that have been completed in the MLA area? Solution: An offset plan to replace environmental projects that exist in the M1.A and surrounding areas	Refer to Supplementary EIS, Volume 1, Chapter 17A Terrestrial Ecology, section 17A.6.1.
21-31		19.6.2 At Site Treatments Concern: Parthenium should be mentioned since this weed is found in the mining area Solution: Washdown procedures is followed and the weed management program implemented. Weed Officer expects area regularly spraying declared and weeds of significance.	Refer to Supplementary EIS, Volume 1, Chapter 17A Terrestrial Ecology, section 17A.5.2.
21-32		26.3.1 Interaction of Environmental Elements in V1 Concern: The change in landform will be severe due to the size of the operation, the removal of biodiversity and the size of the voids that will be left. The vegetation cover will be more than minor when you consider the voids, clearing of vegetation, the over burden piles. etc.	Response: Refer to Supplementary EIS Volume 1, section 26.3.1.
21-33		26.3.1 Interactions of Environmental Elements in V1 Concern: How can changes to land use be beneficial when once rehabilitated WJV suggest that it will not even be restored to the same level of agricultural land that it was before mining? The land use impacts will be more than just minor, considering the topsoil is striped and stock pilled, the vegetation cleared, etc.	Response: Refer to Supplementary EIS Volume 1, section 26.3.1
21-34		26.3.1 Interactions of Environmental Elements in V1 Concern: More information is required on how creek diversions are going to work and there location is needed so we can comment. Location and layout of creek diversions will permanently change the water speed, downstream and long term impacts. Solution: Include plans for creek diversions and allow local comment.	Response: Refer to Supplementary EIS, Volume 1, section 11.6.3.
21-35		11.6 Mitigation Measures Concern: Local knowledge suggests that predictions for flood impacts above the diversions may be understated. Concerned about the loss of the natural flood plain. Would like to see the energy of water Slowed by creating a meandering pattern, waterholes and natural wears that occur natural in the existing system. Solution: Include plans for creek diversions and allow local comments. Plans to include meandering patterns, etc to replace natural system.	Response: Refer to Supplementary EIS, Volume 1, section 11.6.3.
21-36		28 Project Commitments- Concern: Not all shallow and deep bores identified on the map. Solution: Additional information needs to be sought from landholders within a reasonable buffer of the site. Additional monitoring on quality and quantify within these sites.	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
21-37		25.4.6 Rehabilitation Action Plans Final Voids- Concern: Concerned about the area no longer being the same quality of land that is currently been used, eg grain & cattle production at the same levels as current. Avoid leaving final voids, to help eliminate overburden piles as well as increase the safely of the rehabilitated land. Solution: Would like to see the final void backfilled with the original dragline box cut material.	Response: Refer to Supplementary EIS, sections 6.4.4, 9.5.6, 9.6.5, and 25.4.5.
21-38		25.4.7 Implementation of Rehabilitation Strategy Rehabilitation Monitoring- Concern: If monitoring and assessment results indicate that the rehabilitation objectives may not be achieved, then the rehabilitation strategy will be modified to ensure that rehabilitation objectives are met. Solution: Change of wording. WJV work in co operation with the local community and organisations (eg Landcare) for rehabilitation trails which are jointly monitored. The uses of fertiliser in the long term recover effort. It destroys the soil food web. Physical disturbance during mining will have destroyed soil structure. Landcare has expertise with using biological methods of restoring soil health by using natural processes to increase soil carbon and nutrient cycling.	Response: Refer to Supplementary EIS, Volume 1, sections 9.6.3, 21.8 and 25.4.7.
21-39		17A Biodiversity Offsets Draft Concern: Ensure trees planted are species that are desirable native species to the area. Some native species ore not as environmental beneficial as others so need local knowledge. Impacts over the whole mining area will be more than just minor. Offsets need to be considered for all vegetation that exists that will be affected by the mine no matter how minor they seem to think the impact is. The impact will be more than minor just because the biodiversity will lose the connectivity and structure that exists at present. Solution: To be able to achieve offsets that deliver a real conservation outcome, the local community, surrounding landholder and community groups (eg Landcare) need to consulted to ensure that the offsets achieve an equivalent or better environmental outcome. Some native species are not as environmentally beneficial as others so need local knowledge.	Response: Refer to Supplementary EIS, Volume 1, Chapter 17A Terrestrial Ecology, sections 17A.5.2 and 17A.6.1.

Submission Number	Submitter	Submission	Response
22-1	[redacted]	Our property Carmody Downs is included in the MLA. In relation the EIS we would like to make the following comments; 1. Fig 8-3-V1.3 Rural Homesteads shows location of our house incorrectly. Our house and the old homestead are actually within the MLA boundaries not outside as shown in the map. Figure 16-1-V1.3 (Sensitive Receptors) shows both houses but does not include the grain and hay sheds or dam. The sheds are not mentioned in Table 16-4. We request Figure 16 and Table 16-4 amended to include house, sheds and dam.	Response: Refer to Supplementary EIS Volume 1 section 1.2.1.
22-2		2. Xstrata has notified us that our property was not to be included in the mining lease as shown in the EIS. Whether we are inside or outside the mining lease we are concerned that being so close to the mine will have a detrimental effect on the value of our property. We request a land valuation by an independent values before and after mining to ascertain increase or decrease in the value of our property.	Response: Refer to Supplementary EIS, section 6.10
22-3		3. With the present configuration of the mine we are concerned that, over the life of the mine we will face increasing dust, noise and light pollution especially in summer months when the prevailing winds are from the north. What strategies are proposed to minimise these three potential irritants?	Response: Refer to Supplementary EIS, sections 6.3.2, 13.2.2, 13.5.3, 13.6.2, 15.5.3, 15.6.3, and 19.6.
22-4		4. We are also worried that vibration from blasting will effect not only our home and shed but the wall of main dam, which is also inside MLA. What will be the vibration level at the house with varying distances from the blast, and will vibrations change from pit to pit?	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1, 16.5.2 and 16.6.2.
22-5		5. We are also concerned that blasting will effect community bore (Juandah bore) which is also inside MLA. Fig 10-6-V1-3 shows the pipelines for community bores but fails to show the pipelines for Juandah bore. We request that Xstrata includes these details in Fig 10 and that Juandah bore be included as a sensitive receptor. We also ask the Coordinator General to remove the Juandah Bore from the MLA. We would like individual contractual agreement with the mine in the event of the bore sustaining damage from the mining operation.	Response: Refer to Supplementary EIS, Volume 1, sections 10.5.1 and 16.5.2.
22-6		6. There does not seem to be any information on effect of coal dust on pasture and water quality with regard to cattle production or whether there will be any long term effects from residues. We are also concerned about coal dust causing corrosion on machinery and structures e.g. sheds and yards. Please supply scientific research on the effect of coal dust on cattle production including heavy metal ingestion for export market metal levels. Also supply evidence re coal dust on roofs producing acid conditions in moist environmental conditions (heavy dews).	Response: Refer to Supplementary EIS, sections 13.5.3, 13.6.2 and 13.7.
22-7		7. Dust monitors sampling dust particles and not the chemical composition of the dust. Coal analysis shows levels of heavy metals in coal, but there does not appear to be any analysis of heavy metals in the dust monitoring. Please supply an undertaking to monitoring for heavy metals in the dust. We also request independent monitoring for dust levels.	Response: Refer to Supplementary EIS Volume 1, section 13.6.2.
22-8		8. Xstrata emphasis that the mine will bring increased business to the town. Wandoan businesses have historically been built around agriculture. None will benefit from the coal mine, and with the number of properties being brought, it will more than likely have an adverse effect on the profitability. The businesses in Wandoan, which could be adversely effected include: stock agents/product stores, freight services (grain livestock and fuel), school bus runs, mail services. As we also run a produce store and farm fuel delivery service we feel that both these businesses will suffer loss of income through a drop in the number of our customers. We are also concerned that road closures will increase the distance travelled for fuel deliveries, further decreasing profitability.	Noted
22-8		Please supply a theoretical business plan that would be applicable to our business showing the changes we would have to make during the mining (loss of agricultural clients) with respect to other merchandise we could carry (mine supply needs) and then the post mining when we return to a situation with less agricultural production. We are assuming less agricultural production as the mine is not planning to return the quantifiable pre-mining land suitability of the soil profiles but rather a generalised land use condition. It is not only businesses that will be effected, as the landholders who are being displaced, also belong to social and sporting organisations/ Losing such a large number of members will put added stress on those remaining. Could Xstrata structure their arrangements with landholders so they do not all leave at the same time? At present leaseback arrangements do not go past 2011-2012.	Business response: Refer to EIS, Volume 1, section 21.8 and Supplementary EIS, Volume 1, section 21.8. Leaseback response: Refer to Supplementary EIS, Volume 1, section 6.10. Agricultural value: Refer to Supplementary EIS, Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8 and 22.5.
22-9		9. What are Xstrata's plans if they acquire the properties but do not go ahead with the mine? Does Xstrata need a large lease area considering they are also acquiring land outside the lease area not included in the MLA? What will happen to the large area which will not be mined? We would like a land management program to ensure that the land acquired by the mine is managed to maintain or enhance the agricultural properties of the land, both pre and during mining operations and also to address the relinquishment of the land post mining, back to the community.	Response: refer to Supplementary EIS, Volume 1, sections 6.10, 9.5.6, and 9.5.7.
22-10		10. Xstrata is presently buying land in the southern part of the MLA but on the EIS the company does not give any information regarding mining or infrastructure. As the current road diversion for the Jackson Road is designed to be in the area it is important that more information be given. Could you please provide this information?	Response: Refer to Supplementary EIS Volume 1, sections 6.2, 6.3.2, 6.6.2
22-11		11. The Frank Creek pit is very close to the town of Wandoan. Tolerance levels for dust are for adults. No information is given regarding children especially regarding toxicity levels of the coal dust. Will children suffering from asthma be adversely effected? There is also an aged person complex near the Leichardt Highway (Juandah Gardens) where excessive dust levels could accentuate any respiratory problems in the elderly. Dust will be problem especially on windy days. Will the mine stop overburden dumping when the wind is above a certain speed and in a certain direction? This is done in the Hunter Valley.	Response: Refer to Supplementary EIS Volume 1, sections 6.3.2, 13.5.3 and 13.6.2.
22-11		Frank Creek Pit according to Fig 6-3-V1.3 is due to start production in year 3. Xstrata comments in the text that they do not expect lights to be a problem with this pit as they will not be using a drag line. The location photos, which are supposed to depict visual aspects of the mine, give no night views for either year 5 or year 10. If lighting is not a problem, then perhaps Xstrata could include a photomontage for Wandoan for year 5 in the supplementary EIS. Light pollution could still be a problem with mobile light banks for dumping stations. Will these lights be shrouded to reduce light spillage into the town?	Response: Refer to Supplementary EIS Volume 1, sections 19.5.3 and 19.6.
22-11		Noise from dump trucks on a cold night will behind into the town due to the sound waves by temperature inversions. The reversing horns on trucks are one of the most audible sounds from the mines, especially on the top of a 30m dump.	Response: Refer to EIS Technical Report TR15-1-V1.5, section 6.1, and EIS, Volume 1, section 15.6.2.
22-11		The dust, noise and light pollution will make living in Wandoan much less pleasant. Wandoan wants to make living in the town as appealing as possible to attract new residents. How can we possibly (sic) advertise as a good place to live, if they are living next door to a coal mine. Is there a mine 500 metres from a residential area in Australia where residents have had no adverse health or lifestyle effects? Will there be independent monitoring for these pollutants?	Response: Refer to Supplementary EIS, Volume 1, sections 6.3.2, 13.6 and 15.6.2.
22-12		12. a) Although not discussed in the text the northern part of Grosmont Road from L road to Booral Road will disappear. This road at the moments connects Grosmont area to the Bundi Road. This access is required where the creeks flood as it is the only road with high level bridges. Without this road, people north of the mine cannot get to town when the roads are cut. It will also effect the running of the school bus. Please supply details of an alternative route to be supplied by the mine.	Response: Refer to Supplementary EIS Volume 1, Chapter 6, section 6.6.2.
22-12		12. b) Will flood access be adequate when the Jackson Rd. is diverted across Wandoan-Woleebee flood plain especially as it will be effected by the diversion of Wooleebee [sic] Creek? When the Jackson Road diversion is built there must be creek crossings incorporated into the plan to allow wide machinery including headers to move freely east-west. Currently machinery travelling out the Bundi road uses the Wooleebee crossing on the Grosmont Road. Please supply details of route to allow wide machinery to travel east-west.	Response: Refer to Supplementary EIS Volume 1, Chapter 6, section 6.6.2.
22-13		13. a) The final void area left at the end of the mining process seems very large with very vague indications of what will happen to it. There is a void left on our boundary and we are unsure of what long-term effects this may have on us. Please supply conceptual design of this void with minimum dimensions including the final safety bund construction. We also want details of the properties of the material to be used for construction to ensure the bund will not pipe and eventually collapse. Who is responsible for the collapse of the high wall and eventually the bund. We want this conceptual design to be at least a minimum standard to be included in a legal obligation between the mine and us.	Response: Refer to Supplementary EIS, Volume 1, sections 11.6.3 and 11.6.4.
22-13		13. b) Diversion banks are to be built on our property to turn water away from the mining area and we would like to know that they would have no adverse effect on our farming operation. Again we require a legally binding agreement as to the minimum design and maintenance of diversion banks and a process for remuneration (sic) for loss of productivity due to the diversions and a guarantee of water rights.	Response: Refer to Supplementary EIS Volume 1, Chapter 6, sections 6.1, and 11.6.3.

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22-13	[redacted]	13. c) We also requires a chemical analysis of the tailings of the mine and the rehabilitation techniques to ensure tailings are not exposed by erosion post mining. There is no commitment as to the timing for the recovery and re-treatment of tailings and thus rehabilitation. There is no explanation of the deposition and de-watering techniques to ensure a relatively stable tailings mass for rehabilitation and no final landform design to ensure that cattle grazing can be returned to the area. Please provide details of deposition and dewatering techniques to provide a stable mass of tailings for rehabilitation. Describe the rehabilitation technique to ensure that the final surface can be used for grazing.	Response: Refer to Supplementary EIS Volume 1, sections 6.4.4 and 25.4.7.
22-14		14. The land suitability classes do not seem appropriate for the area. Historically the Wandoan region was opened to soldier settlers and through the 60's and 70's was a very good cropping district. Wheat produced was of a high standard and tonnages were sufficient for Qld Wheat Board to build silos in the town. Grain lost popularity because of poor prices and an extreme prolonged drought. This does not mean that the country is not Class 1 for cropping and as such needs to be more highly regarded by Xstrata. The comment by Xstrata the high levels of nutrient pollutants in the overland water were from landholders using fertilizer needs to be examined. The Brigalow soils are naturally high in nitrogen and fertilizer is not commonly used. Conversations with agents seem to indicate that little fertilizer has been sold in the last few years. We require an explanation of land suitability classes and why this criteria is not being used to evaluate rehabilitation rather than the vague 'land use criteria'. With better seasons we want the same land suitability classes to grow similar crops as before.	Response: Refer to Supplementary EIS, sections 9.3.7, 9.3.9, 9.5.6, 9.5.7, and 9.6.5
22-15		From a Rehabilitation Goal (25.4.2) of 'able to sustain an agreed post mining land use' this section is lowering the standard to 'and generally be able to be used for low stocking rates of beef cattle'- This is the problem with using land use as a success criteria for rehabilitation as the words 'low intensity stocking start to creep in where as the pre-mining land use may have been 'medium to high stocking' rates.	Response: Refer to Supplementary EIS, sections 9.5.6, 9.5.7, 9.6.5, and 9.6.8.
22-16		Why are there stepper gradient overburden stockpiles, which will not be suitable for cattle grazing when it only requires a dozer to produce the required slopes. The 15% slopes used on several other mines are not suitable for grazing and a more conservative 10% should be the upper limit for grazing.	Response: Refer to Supplementary EIS Volume 1, sections 9.3.9, 9.5.7 and 9.6.6.
22-17		Could Xstrata please justify why low gradient sections of overburden stockpiles will only be returned to low intensity beef cattle grazing and why there will be gradients too steep for cattle grazing other than ramps and low walls (sic).	Response: Refer to Supplementary EIS Volume 1, sections 9.3.9, 9.5.7 and 9.6.6.
22-18		15a. No mention is made about telephone connections. We will lose our underground lines and we have not been told whether they will be replaced as landlines or whether we will be given radiophone services. We require an explanation of our telecommunications limitations both during and after mining.	Response: Refer to Supplementary EIS Volume 1, section 6.6.8.
22-19		15b. No mention is given to how and when the power will be effect and what changes will occur. An explanation is required to the reliability of power supplies both during and after mining.	Response: Refer to Supplementary EIS Volume 1, section 6.6.9.
22-20		16. Rehabilitation. Chapter 25 Rehabilitation and Decommissioning 25.3 Mine closure objectives a) Public safety — but will leave final voids that have to be maintained by the next land Owner. b) Please provide conceptual design of final void to allow a safety risk assessment by local landowners. c) Post-mining land uses agreed with relevant government agencies - why not return to a range of land suitability classes agreed with local landholders prior to mining. d) Please provide a discussion paper on land suitability vs land us and demonstrate why the mine is not nominating land suitability objectives for their rehabilitation program. e) How can rehabilitation satisfy landowners expectations if they are not part of (c)? Mine Closure Plan Why cannot a conceptual plan be developed to guide mine planners and given the community some comfort that the mining activities are at least planned with a view to progressively decommissioning the site. Please provide a conceptual Mine Closure Plan.	For point a) refer to Supplementary EIS sections 25.4.5, 25.4.6, and 25.4.7 For point b) refer to Supplementary EIS section 25.4.6 For point c) refer to Supplementary EIS sections 9.5.6, 9.5.7, 9.6.5, and 9.6.8. For point d) refer to Supplementary EIS sections 9.5.6, 9.5.7, 9.6.5, and 9.6.8. For point e) refer to Supplementary EIS sections 25.4.5, and 25.4.6.
22-21		25.4 Rehabilitation Element 6.3 of Enduring Value (Australian Minerals industry— 'Rehabilitate or occupied by operations in accordance with appropriate post mining land uses'. The problem is that productivity of rehabilitated land over the long term is directly related to the soil profile returned and the gradient of the land. The vague term 'land use' does not quantify the productive capability of the rehabilitation. A shallow soil profile may produce a good wheat crop if it receives rain every few weeks (abnormal) but in dry deeper soil profile with stored water that will produce a crop in normal. It is important with mixed cropping and grazing land to quantify productive capability in term of suitability classes'.	Response: Refer Supplementary EIS Volume 1, section 25.4
22-22		Please provide an appraisal of the proposed rehabilitation program in terms of land Suitability Classes. List instances where the land suitability class can be improved by the use of the truck fleet to construct areas of shallow gradient.	Response: Refer Supplementary EIS Volume 1, sections 9.5.6, and 25.4.6.
22-22		25.4.1 Rehabilitation Hierarchy 3) Why is this not an objective of the project, especially with truck dump capacity, to construct shallow gradient between the dragline spoil rows. 4) The mine seems to be opting for lowering the productive potential by not committing to re-establishing existing soil profiles. Justify the selection of hierarchy 4 and why hierarchy 3 is not the prime objective of the rehabilitation program. Explain the circumstances which are applicable to the sentence" However, land may be more sustainable in preventing off-site impacts.'	Response: Refer to Supplementary EIS, Volume 1, sections 9.5.6, 25.4.6 and 25.4.1
22-23		25.4.2-3Rehabilitation Goals and Objectives Mining company is committing to a rehabilitation standard of land use only, suitability class of the rehabilitated land. Justify why the mine is committed to a potentially less productive post mine land suitability class.	Response: Refer to Supplementary EIS, sections 9.5.6, 9.5.7, and 9.6.5.
22-24		25.4.4 Rehabilitation Indicators This section discusses mine closure, decommissioning and rehabilitation in the wrong sequence; surely it is rehabilitation, as soon as land becomes available, followed by decommissioning and then finally mine closure.	Response: Refer to Supplementary EIS Volume 1, section 25.1
22-24		This EIS should set out the obvious indicators of rehabilitation success for review by landowners rather than wait for an EMP Plan or PoO when the landowner has little or no legal input. Indicators in Table 25-1 are too vague. Please provide, in detail, the indicators to be used for indicating the success of rehabilitation.	Response: Refer to Supplementary EIS Volume 1, sections 25.4.4 and 25.4.6.
22-25		24.5.5 Completion Criteria Why not develop the completion criteria before the mine starts, to provide mine planners and operational persons to plan the landform deigns and rehabilitation. Set the standard instead of waiting to see what the production people produce. Field trials and monitoring of inadequately designed rehabilitation will generally ensure a lower standard of rehabilitation completion criteria. There is enough rehabilitation through Queensland to come up with completion criteria without putting it off until we have results from 'field trials' Please provide detailed completion criteria for landowners to review.	Response: Refer to Supplementary EIS Volume 1, section 25.4.5.
22-26		25.4.6 Rehabilitation Action Plans a) Rehabilitation two year after land becomes available sounds like a cop and it may not become 'available' for many years. There are probably reasons for leaving areas where prestrip has to be dumped but why can't rehabilitation of the other slope of dragline boxcut spoil start in the first year. This will at least give an indication is to the capability of the mine to actually plan and implement rehabilitation and the area could be used for grazing trials. Justify why rehabilitation, especially the outer boxcut can not be rehabilitated earlier than 2 years after some time in future/ b) Final land uses proposed for each domain has been based on land suitability assessment. Justify why the rehabilitation will not be assessed on attaining certain land suitability class. c) An investigation into the rehabilitation, which may be of a lower standard if not using suitability parameters, will be used to propose acceptance criteria and then the administering authority. Why not the local landowners? Please propose acceptance criteria using information from other mines for discussion with landowners before the mine starts.	For point a) Response: refer to Supplementary EIS Volume 1, section 25.4.7 For point b) Response: refer to Supplementary EIS Volume 1, sections 9.5.6, 9.6.5 and 25.4.6 For point c) Response: refer to Supplementary EIS Volume 1, section 25.4.5

Submission Number	Submitter	Submission	Response
22-27	[redacted]	25.4.7 Implementation of Rehabilitation a) There is no start date for rehabilitation activities Please provide& a basic outline of the reha5ilftajon activities for the first 5 years b) Why is the risk assessment not provided with the EIS? Please provide a risk assessment as part of the EIS process c) There are a number of monitoring techniques available and should be discussed in the EIS. Please provide an assessment of the rehabilitation monitoring techniques proposed.	Refer to Supplementary EIS Volume 1, section 25.4.7
23-1	Wandoan State School	1.5.6 Issue: The concerns such as vibration, odour, dust, and noise of Frank Creek Pit being located in close proximity to the Wandoan School are not adequately addressed. Concerns for the health and well being of students and staff due to possible deterioration of air quality or contamination of school's tank water supply. Increased risk for students suffering from respiratory complaints. Disruption to some school activities as a result of noise pollution from area. School is not readily identified as a sensitive receptor. Possible Solution: An appropriate solution is the non mining of Frank Creek pit.	Response: Refer to Supplementary EIS, Volume 1, Chapter 6 Operations, section 6.3.2.
23-2	Wandoan State School	13.2.2 Issue: The allowable threshold levels are too high and should be reduced by at least half. The averaging for measuring the quality should be reduced, Manual averaging appears unreasonable and should be reduced to more reasonable averaging requirements.	Response: Refer to Supplementary EIS, Volume 1, sections 13.2.2 and 13.3.3.
23-3	Wandoan State School	6.6.1 Issue: The school community is losing families and staff associated with takeover of properties by the project. This will have an adverse affect on enrolment numbers and approximately 35 personnel. Possible Solution: Like to see this housing built and made available as soon as possible, preferably in the first year of construction.	Noted
23-4	Wandoan State School	5.2.3 Concern: No definitive timeline for residential development in Wandoan. Possible Solution: Definite early time line required to facilitate potential school enrolments.	Noted
23-5	Wandoan State School	21.2 Solution: Make housing available to house 35 families to replace the displaced families from the school and community as soon as possible.	Noted
23-6	Wandoan State School	21.8 dot point 8 Solution: Include a target population figure of a minimum of 30% of project employees other than existing residents to reside in Wandoan District.	Response: Refer to Supplementary EIS, Volume 1,section 21.6
23-7	Wandoan State School	Executive Summary Item 11 Solution: Construct houses for 35 families ready for commencement of the project.	Noted
23-8	Wandoan State School	Executive Summary Issue: A commendable initiative with the potential to have significant, positive and long term impact on local youth and community in general. Suggested Solution: Like to see the policy developed and implemented with all parties.	Response: Refer to Supplementary EIS Volume 1, section 21.8.
24-1	[redacted]	Introduction General Background To Our Operations Your submitters have lived and conducted business in the Wandoan area for approximately 40 years. We have a strong social connection with the Wandoan area. Together we variously own and operate (through a family trust and partnership) the grazing properties "Delga" (property description Lots 9 & 12 in the County of Fortescue Parish of Woleebee) and "Alcheringa" (property description Lot 42 on Crown Plan FT505 C0 only of Fortescue Parish of Woleebee) within the general Wandoan area.	Noted
24-1		We acquired "Delga" in approximately 1995. It was bought by your submitters Herbert John Bruggermann and Marie Bernadette Bruggermann with the intention of allowing us to expand into a reliable beef production area and to accommodate that particular interest of our son Jason and his wife Kylie and to re-establish our long-tent connection with the area (Herbert having been previously involved in a family partnership in the Wandoan area and associated with it for many years). "Delga" comprises 1,764 hectares located approximately 38 km to the south west of the township of Wandoan. It is outside the mining lease application areas. It has historically been the main base for the partnership's operations.	Noted
24-1		Purchase Of "Alcheringa" "Alcheringa" was purchased by your submitters Jason and Kylie Bruggermann as part of our family enterprise. It comprises 496 hectares to the North West of Wandoan. Approximately 323.75 hectares is located within the mining lease application area leaving an area of some 172.4 hectares immediately outside/adjacent to it.	Noted
24-1		"Alcheringa" was acquired as an adjunct area to "Delga" but with the intention that it was to be the central base of our operations. Your submitters Jason and Kylie Bruggermann were then intending to relocate to the dwelling on the property and to make significant improvements to that dwelling and its cartilage and to make the property a showpiece. Its proximity to the township of Wandoan was a critical factor in its acquisition (enabling the many benefits proximity to a township affords rural families). We also specifically intended to begin an organic beef operation there so we could access the increased return organic beef production provides. It also facilitated the expansion of the family business into separate breeding (on "Delga", backgrounding (on "Alcheringa", and fattening operations (on a property near Dalby known as "May Valley"). That family business is conducted through a Family Trust.	Noted
24-1		"Alcheringa" was bought at a public auction held in Wandoan on 8 March 2007. We paid a premium for it ($1,205,000.00) because it had become important to our future plans --it was so near to the Grosmont School, so close to Wandoan, such good country, represented a highly marketable (much sought after in our area) and the fact it is directly connected to "Delga" by a good partly sealed road for the comparatively small distance of 40 kilometres. At the time of the auction we had no idea whatsoever of Xstrata's plans. A usual convincing search undertaken by a solicitor at that time could not have revealed anything beyond the fact that an Exploration Permit for Coal (EPC) was registered over "Alcheringa".	Noted
24-1		We are now aware that others that attended the auction had already been informed by Xstrata of their plans in relation to the Wandoan Coal Project generally and that at least one bidder had already agreed with Xstrata to sell their property to them for the project- He was in a position of looking to acquire a replacement property. (There were several properties on offer at the auction and we are now aware that this particular bidder then knew that the property he intended buying would not be affected by the project). The selective public knowledge then available to those in contact with Xstrata was not available to us. Rob Thatcher (whom we now know to be the project manager) attended the auction personally.	Noted
24-1		Public Notice 4 Days After Auction Within four (4) days of our purchase of "Alcheringa" the first public announcement of the Wandoan Coal Project was made. The auction was held on 8 March 2007. The public announcement was made on 12 March 2007. It quickly became public knowledge that "Alcheringa" was to be affected and we received calls from neighbours and family expressing their concern for us. We had obtained finance approval prior to the auction (as is customary). We had no way of' terminating the contract because, like all auction contracts, it was unconditional. We were devastated by the public announcement and subsequent confirmation at the first public meeting of "Alcheringa's" exposure particularly because of its timing and the huge financial and emotional commitment we had made in committing to buy "Alcheringa". We have been in a constant state of stress and confusion ever since and Xstrata's conduct towards us has greatly aggravated that situation.	Noted
24-1		Confirmation of "Alcheringa's" Inclusion and Assessment of Compensation We eventually received a letter from Xstrata notifying us of the project and advising "Alcheringa" was affected. Presumably, because of the change in ownership this letter was initially misdirected. It affirmed to us that our purchase of "Alcheringa" was pointless. At the first public meeting held in Wandoan in June 2007 to discuss the project with the community, Mr Thatcher specifically acknowledged that a significant part of our property was in the Mining Lease and that it would tender the balance of "Alcheringa" unviable, He specifically reassured us at that meeting that Xstrata would not leave us with half our property in the mining lease and half our property outside the mining lease area. He said they would acquire the entire property rather than have that occur. We were at least initially reassured by that.	Noted
24-1		Xstrata's Ungenerous Approach At this same public meeting however (and at others thereafter Mr Thatcher also expressed very clearly to those that attended (including your submitter, Herbert Bruggermann) that people within the mining lease application area could forget about the usual industry premiums you might have heard about or us acquiring your land. The most you will get will be 10% above market value". That had a significant impact upon us as we realized that selling to Xstrata on those kind of terms could lead us to realising a significant loss through no fault of our own.	Noted

Submission Number	Submitter	Submission	Response
24-1	[redacted]	At this public meeting and subsequent dealings with Xstrata, considerable emphasis was also placed by Mr Thatcher on the fact that Xstrata also intended conducting cattle grazing operations in the Mining Lease area and in particular that it intended acquiring properties in the MLA that may or may not be needed for mining for its pastoral arm- Colinta Holdings. It was clearly indicated that this was another reason that usual mining industry premiums would not he paid to landowners in the acquisition process and particularly if the relevant land was not directly over coal deposits.	Noted
24-1		Equivocal Status Of "Alcheringa" After approximately seven (7) months of our living in this frame of mind, on or about 15 October 2007 we then received a letter from Xstrata a copy of which is Enclosure 1. As the enclosure shows we were not informed one way or the other as to Xstrata's intentions for our particular property and in fact the letter was consistent with only part of our property being affected by the MLA. General talk followed in the community that Xstrata was "dropping of?' areas from the ML. We were certainly confused as to whether all or part of our property was to be in or out of the application. The letter had not stated whether we were in or out or partially in or out.	Response: refer to Supplementary EIS, sections 1.2.1 and 6.1.
24-1		Confirmation Of "Alcheringa" Again Being Included General talk also followed in the community that Xstrata had to amend its application to the Director General in some way because of these matters. We became aware that Xstrata subsequently issued another "Initial Advice Statement" in December 2007 which clearly indicated that "Alcheringa" was in the Mining Lease Application area. We subsequently met with Mr Thatcher at another public meeting in Wandoan on or about January 2008 and asked him as to what Xstrata intended with respect to "Alcheringa". Mr Thatcher alluded to the likelihood that we would not be included in the final application but would not commit Xstrata to any particular decision, He was completely equivocal. He said that the final areas would not be known until some considerable time later.	Noted
24-1		We raised our general concerns further with Xstrata over ensuing months but with little response. We were aware we could not develop our property without doing so at considerable risk as to whether or not we would ever be compensated. This placed us in an impossible situation. Your submitter, Herbert Bruggermann, attended a public meeting in Dalby organised by the Department of Natural Resources Mines and Energy in November 2007 and spoke publicly about our situation. The Deputy Premier, The Honourable Mr Paul Lucas, expressed sympathy. Immediately after the meeting Mr Thatcher then took me aside and said 'I take your point Herb". I said "yes we should talk" and he said "yes". At the next public meetings held on 6 December 2008 Mr Thatcher actively sought me out. He said to me "Oh your place is a problem. We really should have bought "Alcheringa" at the auction". I though this meant Xstrata was genuinely interested in addressing our situation.	Noted
24-1		Further Confirmation The EIS was released in December 2007 and it indicates "Alcheringa" remains in the MLA and mining area. Mr Thatcher's comments to Herbert Bruggermann at the public meetings referred to above (i.e. in December 2007 and November 2008) again raised expectation in us that Xstrata were willing to address our situation and acquire our property on reasonable terms as by then we were in a mindset where we just wanted certainty to our situation. We were suffering significantly and had "had enough". We therefore arranged a meeting with Xstrata (and in particular Mr Thatcher to be held on 19 January 2009 in Dalby.	Noted
24-1		Advice "Alcheringa" Is Out Of Lease The day prior to the meeting however — and obviously as a precursor to it - (18 January 2009) we received a letter (Enclosure 2) which for the first time specifically stated that "Alcheringa" would not be included in the Mining Lease area.	Noted
24-1		Further Contradiction Mr Thatcher has recently contradicted the stance adopted in that letter and again indicated to us that the final Mining Lease area will not be determined until later this year and has clearly indicated that Xstrata have absolutely no interest in acquiring our property, in compensating us or addressing our grievances.	Noted
24-1		Our Considerable Upset Notwithstanding all the foregoing and Xstrata's current suggestion to us that they have not intended to include "Alcheringa" in the Mining Lease area since their clearly confusing and equivocal letter of 15 October 2007, the reality we have had to live with is: (i) "Alcheringa" has at all times been included in all public announcements including in the "re-worked" "significant project" declaration/announcements in December 2007. (ii) Mr Thatcher has at all times refused to state (until the letter of 18 January 2009) Xstrata's position and even since then has still indicated that the final MLA areas will not be determined until later in the year.	Noted
24-1		(iii) The EIS now released (December 2008) and to which we must respond continues to represent "A1cheringa" as being in the MLA area. We have enormous sympathy for others similarly affected by Xstrata's self-serving approach to the entire application process however in our particular situation we have suffered a disproportionate social impact to date by the fact that Xstrata has also continuously "mucked" us about. This strong feeling of injustice is compounded now by our concerns that Xstrata's actions have at all times had complete disregard for fair and proper process and concerned purely by economic and commercial greed without any regard for the social devastation and dislocation they have caused.	Noted
24-1		Unfair Advantage Taken By Xstrata We are now concerned that the method and timing in its application for "significant project" status, the method and timing of its Mining Lease Application and its general approach to these issues has given it extensive commercial benefits at the cost of our well-being and any sense of fairness. For instance, Section 26 of the Slate Development and Public Works Organisation Act 1971 empowers the Co-ordinator General to "declare a project to he a significant project for which an EIS is required". Whilst there is no definition of "project" in the Act, logically it should require something that is more a mere proposal and presumably should follow a Mining Lease Application being made. Because a Mining Leasing Application ("MLA") had not by then been lodged, the only information available to the wider public as at the date of the auction was that the property was subject to an EPC. Notwithstanding Xstrata's advanced dealings with the Coordinator General we had no way of knowing these developments.	Noted
24-1		If it is now considered that Xstrata was not duty bound to publicly disclose its application for "significant project status" as at February 2007 (in which case we would not have considered bidding on "Alcheringa"), then we respectively suggest that the practice of applying for such status before a Mining Lease Application is lodged should cease. Further, in the Initial Advice Statement provided to the Co-ordinator General in February 2007, the project was identified as being over various Mining Development Licence areas only. The nearest MDL to "Alcheringa" was MDL 222 as shown in the search, a copy of which is Enclosure 3. On that basis "Alcheringa" should never have been included. Xstrata presumably should have realised that its Initial Advice Statement to the Co-ordinator General in February 2007, did not include "Alcheringa" because it was not in the MDL area in which case its public announcement and inclusion of "Alcheringa" was misleading and damaging to us.	Noted
24-1		Alternatively if "Alcheringa" was in fact included, we respectfully suggest the process of declaring it a "significant project" before a Mining Lease Application had been lodged was incorrect. We would in those circumstances have been aware of the application and never have attended the auction. Similar considerations arise in respect of its timing of the Mining Lease Application itself. The Mineral Resources Act proceeds on the assumption that a Mining Lease Application is the end result of exploratory activity (authorised by an Exploration Permit), subsequent assaying and assessment of development potential (authorised by a Mineral Development Licence) and finally progressing to the mining stage (authorised by a Mining Lease).	Noted

Submission Number	Submitter	Submission	Response
24-1	[redacted]	Lodging an application for “significant project” status and/or a Mining Lease Application prior to a genuine intention to develop and/or as something of a “wish list” and/or as a means of gaining priority or commercial advantage seriously disregards the spirit of the Act if not its explicit or inherent requirement that an application be made after relevant assessments have been made and adequately development plans are available. Another issue arises in respect of the global claim for areas not directly relevant to the activity of mining. Section 6A of the Mineral Resources Act inherently requires that the application only he in respect of areas necessary for that purpose. It does not contemplate an application for areas for grazing purposes or for buffer areas as such. Ultimately this apparent ability to disregard correct process will now, unless adequately addressed by the relevant authorities including the authority administering the EIS process, result in Xstrata obtaining a significant commercial benefit at our cost and detriment. We should be compensated accordingly.	Noted
24-2		Benefits Xstrata Obtain The very significant commercial benefits to Xstrata in filing an application at an early stage and undertaking the various other steps identified included: • that it would obtain priority over any overlapping petroleum lease applications (Section 251 of the Mineral Resources Act 1989) • that landowners would be subject to the current legal view that improvements made after the date of the application would not compensable	Noted
24-2		•that landowners would be subject to the current legal view that restricted areas constructed after the date of the application being lodged would not be restricted areas under the relevant legislation. Section 238(2) provides restricted areas cannot be the subject of a Mining lease grant without the consent of the owner of the land. Restricted areas include areas such as accommodation; buildings for business purposes, principal stockyards, bores or wells, dams and. artificial water storage connected to a water supply cannot be mined without the consent of the Landowner and buffer areas of 50/100 meters (see the definition of restricted land in the Schedule to the Act). In rural situations this can lead to extensive commercial interruption, to mining activities resulting in large “islands” of land unable to be mined without the landowners consent. See generally Section 238(2) of the Mineral Resources Act 1989.	Noted
24-3		Detriment We Suffer Your submitters Herbert John Bruggermann and Marie Bernadette Bruggemann have worked very hard over many years with the view to passing onto our son Jason a prosperous and -viable farming operation only to see their our life’s work at jeopardy. Your submitters Jason Robert John Bruggemann and Kylie Jayne Bruggemann also have had our plans to relocate to “Alcheringa” and all future plans inherent therewith (including the education of our children and an enhancement of our enjoyment of life inherent in living on “Alcheringa”) upset.	Noted
24-3		We remain under the cloud of uncertainty. For instance, we are at a loss as to how to approach our response to the EIS and the extent of resources we should be applying to doing so. Part 6.1.0 (of Volume 1-2 Main Text) of the EIS is completely equivocal as to whether or not we are to be “in” or “out” of the Mining Lease area. We have only recently received the letter of 18 January referred to above which was after the EIS was released. If we do not make submission we cannot be further involved in the process. Mr Thatcher has however again recently resiled from the letter of 18 January 2009 anyway. Do we assume we are in the Mining Lease in considering our response or do we assume we are out of the Mining Lease? We have continually been placed in this quagmire/quandary situation.	Noted
24-4		Our Detailed Response The EIS fails to adequately address the social impacts of the project and how they may be minimised. Whilst the EIS addresses in very general terms the general social impact of the project (part 5.4, part 5.13, part 5.28 and part 5.32 of Volume 1-2 Main Text) it does not adequately detail the extent of impact caused by Xstrata’s particular approach to the application to date. Its impact on us is detailed in the introduction above. Community (and our own) upset to its approach has been well known to Xstrata for some time prior to the release of the EIS (including letters sent for or on behalf of the landowners). Consistent with our general understanding the EIS observes at Part 5.28 “property owners and their families as well as their employees and tenants will be required to vacate their properties before the end of 2009... Negotiations with affected property owners are continuing at the time of writing this report.	Noted
24-4		As a result of Xstrata’s: (a) ability to selectively disclose to some but otherwise conceal from the market place its intentions for “Alcheringa” through its premature application for “significant project” status and lack of public consultation at an earlier stage (b) self-serving approach to the tenure environmental application process (which has conferred upon it extensive commercial benefits at considerable cost to landowners such as ourselves); (c) its publicly stated parsimonious approach to the issue of compensation/property acquisitions (including by the interpositioning of its grazing company); and (d) its extensive vacillation and misrepresentations as to whether our property is affected (but at all tents continuing to have it included in the MLA notwithstanding equivocal representations to the contrary); and its (e) overwhelming size and commercial experience compared to ourselves;	Noted
24-4		we have: (a) lost in excess of 2 years of our development and improvement program for the property “Alcheringa” (mindful of the fact that because of the timing of the lodgement of the MLA and the original “significant project” status such improvements would not be compensable); (b) felt completely at the mercy and whim of an enormous public company apparently able to dictate the relevant processes without regard to the impact it has upon us or any intention to minimise that impact in a fair manner; (c) lost an indeterminate amount in direction and enthusiasm for our general business operations, our future plans and quality of life; and (d) been placed under enormous psychological and emotional stress. That is manifesting itself in our physical health. Over the last 2 years we have expected negotiations to begin with us (as was represented to us when we attended the first public meeting).	Noted
24-4		Part 26.9 of the P18 at least observes: “Impacts on individual landowners associated with the MLA areas are associated with negotiated purchase of lands and impacts on adjacent landowners. The WJV is consulting with the owners of the 37 properties in the MLA areas with a view to negotiating the purchase of properties so that a mining lease can be established,” Part 21.6 of the EIS also observes: “Some families who are directly affected by the project would move from the area We are certainly directly affected and that affect has been greatly aggravated by Xstrata’s handing of us. Part 5.28 of the EIS also says: The proponent is negotiating directly with property owners directly affected by the project”; and ... “the details of these negotiations are confidential and can not be included in this report”.	Noted
24-4		It is convenient to Xstrata to suggest that details of these negotiations are confidential. Our understanding is that until agreements are reached negotiations are not confidential and it has been confirmed to us by other landowners that they have not been required to enter into confidentiality arrangements in respect of negotiations. Certainly Xstrata ‘s general approach to compensation matters and possible property acquisitions is the subject of extensive “barbecue” talk and social communication throughout our closely knit community as would be expected. All that talk has led to the public perception that Xstrata has approached negotiations in the same parsimonious manner Mr Thatcher promised at the first public meeting - at least where it chooses to be.	Noted
24-4		Inherent in the EIS comments above is an inference that Xstrata is negotiating on a reasonable basis and/or with a view to minimising the negative social impact it observes. It has also extensively represented to the community through its community consultation process, bulletins etc. that it is intending to minimise community and social impacts and be a good corporate citizen.	Noted
24-4		There is some acknowledgement of this situation in the EIS at paragraph 5.4: “Community consultation has identified that some members of the community. particularly affected property owners, are going through a grieving process, as they come to terms with losing their properties. The EIS should have addressed these impacts in more detail as is required of it under EIS guidelines: "an assessment of impacts on local residents, current land uses and existing lifestyles and enterprises” The EIS also fails to adequately address the specific requirement in its Terms of Reference that it should provide: “Measures for avoiding, minimising, managing..... adverse impacts including a statement of commitment to implement the measures”.	Noted

Submission Number	Submitter	Submission	Response
24-4	[redacted]	Critically, the EIS fails to address the comparatively simple solution required to minimise the serious social impacts and that is to negotiate with landowners on an appropriate basis in the circumstances. That basis should not be limited to bare commercial value (plus 10% as Mr Thatcher represents) and without having regard to the extent of individual social impact already caused, and to be caused, into the future. Xstrata's approach to negotiations to date has been overly commercially aggressive (eg. 'forget industry premiums" and the involvement of Colinta Pastoral Company) which can only aggravate the social impacts caused.	Noted
24-4		Suggested Solution Adopting a generous approach to compensation could enormously mitigate the social impacts identified in the EIS and importantly also could have a significant bearing upon community perception of Xstrata. Its parsimonious approach to date, its mishandling of the relevant processes (particularly so far as "Alcheringa" is concerned for us) and its complete disregard for instance of our situation has aggravated the social impacts and galvanised parts of community attitude against the project.	Noted
24-5		The EIS observes: "Mitigation of potential social impacts and the maximisation of the benefits to the community are crucial to the project ..." Slavish adherence to Tribunal compensation procedures where it is commercially advantageous to it should be avoided. Current interpretation of the law that the landowner should hear his own costs in that process and the stressors of those procedures should not be used. That only serves to aggravate the adverse social impacts it should seek to avoid. There is a compensation approach in any commercial dealings of this nature where landowners know they have been dealt with fairly and adequately compensated. If Xstrata is genuine about minimising the social impacts, it should leave landowners in no doubt as to whether that approach has been adopted. It should be on the side of generosity. It need not be a commercially unrealistic price to Xstrata but must be viewed in light of the extensive commercial benefits it seeks to extract at the cost of those most directly affected—the owners of the land- it seek to mine.	Noted
24-5		If Xstrata is not able to find the compensation approach or price" at which landowners know they have been dealt with fairly and generously then an independent panel (if necessary comprising a psychologist, a valuer and an agronomist or some other composition as will adequately address the complex interwoven issues that arise), should be established to act in its place. The EIS should make provision accordingly and contain a commitment by Xstrata to that process. In appropriate cases compensation for the adverse impacts of the process undertaken to date should also be provided for and committed to. Alternatively Xstrata should be forced to undertake correct legal procedure and recommence the entire MLA process.	Noted
24-6		2. Inadequate Addressing of Comparative Economic Benefits The EIS deals extensively with the perceived economic benefits of the project but contains no appreciable cost benefit analysis compared to competing land uses. Xstrata has extensively acknowledged to the community that rehabilitation of mined country to its pre—mining stage is impossible. it acknowledges that at best rehabilitation will result in the affected lands being one class lower than its pre-mining condition. "Alcheringa" has historically shown an ability to add in excess of 1kg per day to cattle run by us in the better months and averaging approximately 15kg per day over an average season. Other country in the MLA area would be comparable and better. Invariably the business operations of all landholders significantly underpin the surrounding economy with direct, indirect and flow—on benefits to its prosperity, employment and character.	Noted
24-6		In particular, after extraction and handling, coal is transported out of the community (and country) such that the indirect and flow on benefits (value adding, additional handling and consequential economic impacts) are limited whereas the production of beef has ongoing indirect and flow on benefits throughout the entire production and handling cycle. No attempt has been made in the EIS to compare the 2 competing land uses —- i.e. a mining lease involving staged development of particular areas over a 32 year period as opposed to all grazing operations over the entire 32 year period and including all indirect and flow on effects throughout the entire business cycle.	Noted
24-6		Importantly also such an economic study should take into account the degraded state of the land after rehabilitation and for a lengthy period thereafter- It may well be that on a true comparative analysis the short terra gain undertaken by mining is not significantly (if at all) superior in terms of economic return to the local community, the State and/or the contrary compared to the longer term operation of beef production over the extended period (and given the long term degradation of the land and its ongoing productivity that mining causes). The EIS guidelines specifically required a "rigorous assessment" and that assessments should address " - beneficial and adverse impact's as well as cumulative impacts in combination with other known activities". EPA guidelines provide that EIS's should be prepared with a view to assessing "the potential... adverse and beneficial economic and social impact of the project"	Noted
24-6		Other impacts relevant to this study (including in respect of dust, noise, light, etc. may be of some relevance to this study (refer to those areas hereafter). Solution An extensive and detailed economic analysis of the competing land uses in terms of the foregoing should be undertaken and included in the EIS to then be again reviewed.	Noted
24-7		3. Specific Economic and Social Impact Further to the foregoing, the EIS fails to address the impact of the project upon our specific operations. If half the property is to be left outside of the lease area it will have a significant impact on our overall business operations and will render "Alcheringa" unviable to us and frustrate entirely our intended development and future plans. Regardless of whether we are "in" or "out" of the Mining Lease the proximity of the mine means that the following specific impacts seriously detract from our continued operations and/or severely interfere with "Alcheringa":	Noted
24-7		3.1 Road Closure The proposed closure of the Grosmont Road will significantly impact upon us as it will mean we will have to add at least a further 80 kilometres each time to our round trip. We currently undertake extensive trips between the two properties including to check waters, move cattle to and from the properties and undertake all our usual work on the combined properties. The additional travel is likely to render continued ownership of "Alcheringa" unviable and aside from the social impacts referred to above would so severely impact upon our overall operations that we may be forced to sell "Delga" as well. The road closure will therefore invariably impact significantly upon our business operations and cause us excessive loss and damage. Adequate monetary compensation must be secured.	Response: Refer to Supplementary EIS, Volume 1, section 6.6.2.
24-7		Solution A full analysis of the impact of the closure of this road should be included in the EIS (and then subject to review). At the least, a process for full compensation approached on a generous (not parsimonious) basis should be a means of summarising the impacts thereby caused. Xstrata should then commit to that approach to mitigation of the impacts. As a matter of law, the area of the mining lease may need to be expanded to include "Delga".	Response: Refer to Supplementary EIS, Volume 1, sections 1.2.1 and 6.6.2.

Submission Number	Submitter	Submission	Response
24-8	[redacted]	3.2 Impact on Beef Production Whist the legislation may identify sensitive receptors in terms of human occupation, regard must also be had to the sensitivity of cattle as “receptors” particularly given the importance of optimising conditions to weight gain. It has long been recognised that the more settled cattle are, the less they are handled and the more comfortable -their environment, the greater the weight gain. The general Wandoan area is highly regarded for this purpose and “Alcheringa” is no exception. Necessarily, noise is (for example as identified in scenario 5 year 20 at Figure 15-7- VI .3) may significantly impact upon cattle production. We have historically always run cattle relating to the “boss indicus” strain which are prone to be flightier than other breads but which are more suited to our general operations. Invariably these cattle will be more disturbed than other breeds and weight gain can be expected to be less where there are impacts of noise, dust, vibrations and the like.	Response: Refer to Supplementary EIS Volume 1, section 15.3.2, 13.2.2, 13.2.3 and 13.7.
24-8		Likewise, the EIS indicates the proposed stock pile at Booral in Grosmont Crossroads on a neighbouring property to “Alcheringa”. Xstrata have acknowledged to Mr Postle that he will have an environmental problem with dust. Further the conveyer belt identified at Figure 6-28-VI .3 will come within close proximity to “Alcheringa” (approximately 600metres). Necessarily poses problems of dust and noise again likely to impact upon beef production and our capacity to enjoy occupation of the dwelling on “Alcheringa”. Those issues again make apparent inadequacies of the EIS in dealing with the negative economic impacts of the project. Solution A full analysis of the impact of the closure of this road should be included in the EIS (and then subject to review). At the least, a process for full compensation approached on a generous (not parsimonious) basis should be a means of summarising the impacts thereby caused. Xstrata should then commit to that approach to mitigation of the impacts.	Response: Refer to Supplementary EIS Volume 1, sections 6.6.2 and 13.5.3.
24-8		3.3 Bore We are members of the Grosmont community bore scheme and are concerned as to Xstrata’s commitment to the community aspects of that bore. The former legal arrangements between the parties continue for the life of the bore however historically all shareholders in the bore are committed to its common use and benefit and longevity. Xstrata by property acquisition will be or has become a major shareholder in the bore project and we are concerned by its commitment to continue it. Further, we believe that the relevant pipeline is a restricted area and indeed all trough lines across the property are restricted areas under The Mineral Resources Act however Xstrata and the Queensland Department of Mines and Energy have to date indicated a different attitude. If a mining lease is granted over that area our extensive water improvements on “Alcheringa” (which we had intended to enhance but for the restricted area issue referred to in the introduction) will be lost and significantly impact upon us.	Noted
24-9		Solution Strict conditions should be imposed in relation to the handling of this particular matter and provision made for future compensation and specific provision made that the applicant or operator as the case may be will be responsible to compensate landowners for any diminution in value and/or production experienced as a result of the loss of these facilities accordingly. A significant monetary bond should be obtained or provided for in the EIS with a commitment made by Xstrata to adhere to it.	Noted
24-10		3.4 Mud Creek Xstrata have indicated in the EIS their intention to ultimately divert Mud Creek. Mud Creek provides significant benefits to our general grazing operations on “Alcheringa” as it provides important beneficial flooding. The EIS does not currently adequately identify exactly what is planned by Xstrata in relation to this however it has the potential to significantly impact our operation. All studies in the EIS relating to the diversion of Mud Creek (and others) does not consider the affect of the creek diversion on the cattle (and therefore landowners) and their access to water from the creek. This will be a significant intrusion to our riparian rights-- rights long held under the common law — and could have significant implications for us.	Response: Refer to Supplementary EIS, Volume 1, section 11.6.3.
24-10		It is also urged upon the authorities that the law in relation to the enjoyment of riparian rights is such that any attempt to install a levy bank or otherwise interfere with the creek could give rise to a private nuisance which could involve the administering authority as an additional party to any action for damages. As with other future matters of this nature the problem arises that without these issues being addressed adequately in the EIS or the EA, landowners may well be denied in any future claim for compensation by the defence of Xstrata having acted under the statutory authority of the mining lease.	Response: Refer to Supplementary EIS, Volume 1, section 11.6.3.
24-10		Solution The EIS should be supplemented by a requirement for this to be adequately detailed and its implications traversed. Strict conditions should be imposed in relation to the handling of this particular matter and provision made for future compensation. Specific provision should made that the applicant or operator as the case may be will be responsible to compensate landowners for any diminution in value and/or production accordingly. As is elsewhere proposed herein a significant monetary bond should be obtained or provided for in the EIS with a commitment from Xstrata to adhere to it and all such mitigation methods.	Response: Refer to Supplementary EIS, Volume 1, section 11.6.3.
24-11		3.5 Parthenium We are particularly concerned about the potential spread of parthenium and the misrepresentation in the EIS that parthenium is already prevalent in the area. It is not. Our local community is well aware of the currently limited location of parthenium and we do much to control it. It is however so aggressive by nature that it will be a very difficult thing for the mine to control not withstanding its best intention, Parthenium is easily spread by traffic and the extreme increase in the volume of traffic throughout the region but in particular through the sensitive areas will, we believe, without extreme attention to the matter lead to infestation.	Response: refer to Supplementary EIS Volume 1, sections 17A.3.4 and 17A.5.2.
24-11		Solution Strict conditions should be imposed in relation to the handling of this particular matter and provision made for future compensation and specific provision made that the applicant or operator as the case may be will be responsible to compensate landowners for any diminution in value and/or production accordingly. As is elsewhere proposed herein a significant monetary bond should be obtained or provided for in the EIS with a commitment from Xstrata to adhere to it and all such mitigation methods.	Refer to Supplementary EIS, Volume 1, sections 17A.5.2 and 25.4.7
24-12		3.6 Representations re: Buffer areas: Xstrata have spoken extensively of acquiring “buffer” areas. These are repeated in the Executive summary of the EIS. Further, in its initial community consultation process, Xstrata made much of its intention to have “buffer” areas within the mine lease and to utilise areas not required for mining immediately or not required for mining at all, utilised by an associated company, Colinta Pastoral Holding Limited. The application was not therefore made at a time inherently required under the Act and/or was made for purposes not authorised by the Act. (Section 6A(l) and section 232 of the Mineral Resources Act 1989 refers).	Noted
24-12		Solution In these circumstances the economic and social impacts arising from such a large project are best minimised by the applicant making acquisitions (on generous not parsimonious) terms of properties impacted upon but not directly in the mining lease area to make good its representations. It is submitted that in a project of this magnitude it is appropriate for buffer areas to be acquired to avoid extensive impacts without compensation for those near to the mine but not within the mining lease application areas. The Mineral Resources Act 1989, may not permit the granting of a mining lease over areas not necessary to undertake the mining operations, at least without the consent of the owner. An approach to minimising impacts by acquiring properties on a generous (not parsimonious) basis would thereby alleviate that problem and still see to minimisation of the impacts.	Response: Refer to Supplementary EIS Volume 1, section 6.1.
24-13		3.7 Impact of Dust and Organic Farming Considerations As indicated in the introduction, we acquired “Alcheringa” at auction without knowledge of Xstrata’s plans and intended in part, on developing an organic beef production aspect to our business. We do not believe we can now obtain that status. Aside from the impact of general dust from the nearby mining activities (and of course the areas within the mining lease) affecting both the production and edibility of grass and crops (Cc factor recognised by other mining companies but apparently not Xstrata) there remains the considerably uncertain affect of coal dust generally. As indicated, “Alcheringa” will be located next to a conveyor belt, a stock pile area and heavy transport roots in addition to general proximately to the mine (and areas within the mining lease itself). Problems experienced in Gladstone and the general recognition of pollution from coal dust we believe will render us incapable of obtaining organic status.	Noted

Submission Number	Submitter	Submission	Response
24-13	[redacted]	We are aware that such organisations as Devine Agribusiness acknowledge the impact a mining operation can have on cattle operations. We are also aware that other energy companies consider the impact that their operations have on cattle production such as breeding, herding and mustering, animal health, nutrition and growth and QA systems and food safety issues (including organic accreditation). These issues, and their impact on cattle production, is not addressed at all in the EIS. Solution: An extensive study of the effects of traffic, dust, noise, light. vibrations and other possible impacts capable of interfering with the ability of cattle to add weight should be undertaken with consideration given to the nature of the cattle involved (e.g. boss indicus cattle as opposed to other breeds) on both a general and specific basis.	Response: Refer to Supplementary EIS Volume 1, section 15.3.2, 13.2.2, 13.2.3 and 13.7.
24-14		3.8 Ground Water, General Water and Bore Issues The EIS is indeterminate and inadequate in dealing with this issue. It is one critical to graziers. "Alcheringa" necessarily relies upon bore water from the (Grosmont bore and the private sub—artesian bores on the property. If the law is that the granting of an environmental authority will ultimately constitute a defence to an action of nuisance then in order to avoid the administering authority being an additional party to any relevant action and/or to ensure compensation is available, significant bonds should be obtained from Xstrata or agreements entered into for conditions imposes requiring adequate compensation for landowners ultimately affected. Further, strict conditions should be imposed to make sure the situation is continuously monitored and addressed.	Noted
24-14		We are also concerned that the use of coal seam gas water or any impure water to control dust over the extensive areas of the mining lease will ultimately lead into the water table and do not believe the EIS has adequately addressed that issue. Solution The EIS should address this issue in scientifically more detail and identify more bores within the mining lease areas and all aquifers potentially affected thereby. A significant monetary bond should be obtained or provided for in the EIS with a commitment from Xstrata to adhere to it.	Response: refer to Supplementary EIS Volume 1, sections 10.8, 11.4.4, 11.5.4 and 11.6.5.
25-1	Wandoan Sub Branch RSL	Wandoan Sub Branch RSL operates an aged care complex adjacent to the Leichardt Highway, making it the closest accommodation complex to Frank Creek Pit.	Noted
25-2	Wandoan Sub Branch RSL	We are very concerned about the effects of dust, light, noise and blasting on the complex. We are also concerned that long term mining effects on the town may cause a loss of financial viability of the complex.	Response: Refer to Supplementary EIS Volume 1, sections 6.3.2, 13.2.2, 13.5.3, 13.6.2, 15.5.3, 15.6.2, 16.5.2, 16.6.2, 19.5.3, and 19.6.
25-3	Wandoan Sub Branch RSL	We require that Xstrata undertake to control noise, light, dust and vibration which may adversely effect residents, structures, machinery and fittings and to rectify any problems which may occur as a result of their operations.	Response: Refer to Supplementary EIS Volume 1, sections 6.3.2, 13.5.3, 13.6.2, 15.5.3, 15.6.2, 16.5.2, 16.6.2, 19.5.3, and 19.6.
26-1	Wandoan Housing Association	The Wandoan Housing Association is concerned about the close proximity of mining to our 'Juandah Gardens complex on Henderson Road, Wandoan. The complex comprises 10 units for aged persons accommodation, with 8 occupied at the moment. The complex is close to the Leichardt (sic) Highway which is within 500 metres of mining and 600 metres of blasting. Our concerns include: Blasting: 15 V.1 Bk 2, Ch 28, Pg 15 The WJV will undertake, with the cooperation of landowners, condition surveys of buildings and structures within 2 km of blasting activities prior to commencing blasting operations. • Subject to the findings of the condition surveys, the WJV may implement specific mitigation measures for potentially affected structures. • Where buildings or structures are impacted by blasting operations undertaken by the WJV (taking into account the baseline condition surveys), the WJV will "make good" the impacts to buildings or structures from the blasting operations. Will blasting take place within 2k of our facilities? Who will pay for a survey when it is needed? Will this affect our insurance? If it does, who will pay for the increase?	Response: Refer to EIS, Volume 1, section 16.6.2, and Supplementary EIS sections 6.3.2, 16.5.2, 16.6.2 and 28.2.
26-2	Wandoan Housing Association	Odour: EIS V.1 Bk 2, Ch 13, Pg 28 'Waste water treatment plant odour sensitive places for this project include: • The Wandoan Health Care Centre • Cultural Centre • Community Pool • Showgrounds • Shotgun club • Sports facilities • Shops and business premises • Residences Why is no mention made of the Juandah Gardens which are situated between the Wandoan Health Centre and the Cultural Centre? What is considered acceptable? Will monitors be installed for odour? Where will these be set up? Will they operate at night?	Response: Refer to EIS, Volume 1, section 13.5.3 and Figures 13-41-V1.3 to 13-43-V1.3, and Supplementary EIS, section 13.5.3.
26-3	Wandoan Housing Association	Dust: Concern is felt about the affect of dust. Will monitors be installed for dust? Where will these be set up? Will they operate at night? What will be the position if dust levels are unacceptable? What are the accumulated affects on buildings? If extra maintenance is required, who will pay for this?	Response: Refer to Supplementary EIS, section 13.6.2.
27-1	[redacted]	This submission is with regard to the maintenance and repair of contour banks situated on land not being specifically used for mining, but in the lease area. The land concerned is within all three mining lease application areas, due to the fact that all agricultural farms in the area have networks of contour banks to prevent soil erosion. My concern is that with no appropriate monitoring and maintenance, these banks will break in time, and if not repaired, will result in catastrophic soil erosion. The soil in the area is shallow (30cm to 60cm over clay) and very fragile. When soil conservation was a priority of government, the Wandoan agricultural area was regarded as the 2nd most hazard prone in the state. Surely the E.I.S., which is totally lacking on this aspect, must demonstrate some understanding of this impact on the environment and indicate a commitment on behalf of the Joint venture partners to be good custodians of the land not used for mining or infrastructure.	Response: Refer to EIS Volume 1, section 9.6.3 and Supplementary EIS Volume 1, section 9.6.3.
27-2		On another note, when the fauna survey was conducted, we offered to show the people involved current photos of Koala's in trees along Mud Creek.	Noted

Submission Number	Submitter	Submission	Response
28-1	[redacted]	Thank you for the opportunity to make a submission on the environmental impact statement for the Wandoan Coal Project. I have no pecuniary interests with regard to the proposed mine nor any land holdings in, or around, Wandoan. My interest in relation to this EIS is purely in seeing how sustainability is being achieved in the mining industry, and how potential impacts are communicated to the existing community. In summary, the issues which I believe should have additional investigation include: • Overburden erosion potential; • Post-mining land use; • Hydrogeology; • Surface water management; • Air quality; and, • Economics.	Noted
28-1		In my opinion the current EIS should investigate these issues further as some of the assumptions employed may eventuate with potentially adverse consequences. Also, I do believe the impacts of mining can be more clearly communicated in some areas of the EIS, especially when existing (or background) levels are compared to levels encountered during the life of the mine, in particular, air quality, and economic impacts. Finally, the EIS should discuss the merits of buffer zones to remove mining impacts from the existing community. Please find attached the details on my submission relating to the issues listed above for your consideration. Should you require any additional information, please contact me at the above address.	Noted
28-2		Issue: Establishing stable land forms, particularly for rehabilitated overburden areas. Most overburden material was found to be highly dispersive making it susceptible to tunnel erosion. It is proposed that spoil pile rehabilitation generally has final gradients no more than 15%. The EIS indicates that the final land form slopes greater than 20% are to be rehabilitated with natural vegetation. It is likely to be difficult to retain the top soil on steep grades to prevent sodic soils being exposed while the land is being rehabilitated. What is the likelihood of slope failures given there will probably be extended periods of time between periods of wet weather? Who will manage/rehabilitate any slope failures once mining has finished?	Response: Refer to Supplementary EIS Volume 1, section 25.4.7.
28-2		Suggested solution: I believe it will be helpful for readers of the EIS to see details and drawings of proposed engineering works to create the final land forms. This should show how water is collected and channelled within the rehabilitation areas to rock-lined chutes presumably in order to convey water down steep slopes. Demonstrate that the lengths of steep slopes will be kept short and how energy will be dissipated for the transition of water from steep gradients to shallow gradients.	Response: Refer to Supplementary EIS Volume 1, section 25.4.6.
28-3		Issue: The entire MLAs covered by this EIS are considered to be Class 2 Land Suitability Class in the EIS. Class 2 land is described as being suitable land with minor limitations which either reduce production or require more than simple management practices to sustain land use. Once the mine has closed, the amount of Class 2 land will reduce from 100% to 61%. An estimated 34% is likely to be considered Class 3, and 5% Class 5 land according to the EIS. Class 3 land is described as suitable land with moderate limitations — land which is moderately suited to a proposed use but which requires significant inputs to ensure sustainable use. Class 5 land is described as being unsuitable land with extreme limitations that preclude its use. Presumably this will be the final void(s).	Noted
28-3		Beef cattle grazing is a major agricultural industry in this area. By reducing the availability of Class 2 by more than one-third, it will be more expensive for the future landowners to achieve the same yield, and therefore, the prosperity of the local community/Wandoan will be lower than currently exists (i.e. premining). The layout of the mining areas may lock-up existing Class 2 land by creating pockets of this land type that is inaccessible due to its proximity to Class 3 or Class 5 land. Therefore the loss of good productive beef grazing land may be more than 40%. As a result of the land being a lower classification, the ability for economic uses of the land is likely to be reduced. Suggested solution: The mine owner to establish land forms that correlate to Class 2 land with the exception of the final void(s). It is recognised that this will not be possible for the final void(s). Identify potential management strategies of the land if it is not economically viable to farm to ensure that weeds and feral animals are controlled.	Response: Refer to Supplementary EIS Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8, and 17A.5.2.
28-4		Issue: The EIS notes there are short-term groundwater levels for the area (less than 1 year). The analysis done for this EIS found there was very little correlation between groundwater levels and rainfall and the EIS commented that correlations should be established over a longer time period (> 10 years) to detect long-term changes to groundwater from rainfall patterns. The EIS proposed that further field work and assessment of water levels, water quality and calculations of drawdown be undertaken. The assessment that was undertaken determined that the drawdown radius around the centre of the pits ranged from between 1km and 2.8km. This assessment did not consider the increased drawdown that would result from pits being operated simultaneously or take into account that some of the pits may be dry or become dry over time as mining progressed due to the limited quantity of groundwater present or dewatering the aquifers (p 10-12, Book 1 .2, Volume 1).	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
28-4		The effect of the drawdown in the vicinity of the pits will be modelled against coal seam geology to obtain a more detailed understanding of recharge zones, storage zones and flow directions (p 10-12, Book 1.2, Volume 1). "It is noted that the quality of water in the impacted aquifers pre-mining is generally poor and often unsuitable for beneficial uses such as stock watering and irrigation without mixing with better quality water" (p10- 14, Book 1 .2, Volume 1). This is considered to be a very broad generalisation, have the property owners in the area confirmed this practice? "Accurate determination of post-mining water quality of the impacted aquifers is not readily predictable and will require detailed investigation, including ongoing monitoring and further assessment' (p10-14, Book 1.2, Volume 1). Given the uncertainties regarding the understanding of groundwater behaviour (flow patterns and rates), and the reliance by some adjacent land owners on bore water for stock watering, what is the accuracy of the groundwater modelling undertaken to date?	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
28-4		If these landowner's bores are affected they would probably have to rely on surface water stores which are less reliable or import water. This would reduce the profitability of, and most likely jeopardise, existing agricultural practices and in turn reduce the prosperity of the local community/Wandoan. Should mining go ahead without confidently knowing the risks to existing bores and aquifers in the region? Suggested solution: Quantify the accuracy of the groundwater model used in the EIS. Establish an accurate groundwater model that is calibrated to data collected from bores across, and adjacent to, the MLAs. Provide an indication of when the groundwater modelling will be refined, and how the outcomes will relate to the mine being developed.	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
28-5		Issue: Long-term water quality in mine-site water dams has not been assessed. Long-term simulation hydrological modelling has been performed for the various stages during the life of the mine using more than 100 years of daily rainfall data to estimate the quantity of water volumes in the mine-site water balance.	Response: Refer to Supplementary EIS Volume 1, section 11.6.2.

Submission Number	Submitter	Submission	Response
28-5	[redacted]	The EIS notes that "There has been no attempt to model the quality of water stored in the water management system. The adopted water management system design criterion is for no unplanned discharge of contaminated water. If this discharge criterion is met, the receiving water quality will be suitable for current and future uses" and that '. . It's likely that (so long as areas of mine-site dams. If uncontrolled spills do occur, particularly sodic or saline material are carefully managed) the water captured quantify the ensuing pollutant concentration at in sediment dams from overburden dumps would be considered the downstream boundary of the mining area. uncontaminated (with high suspended solids concentrations only), in which case the appropriate design criteria would be the 10% AEP time of concentration event."	Response: Refer to Supplementary EIS Volume 1, section 11.6.2.
28-5		The only water quality aspect that appears to be considered is sediment loads or turbidity and how this will be managed. Further, as described in Chapter 10 of the EIS, "based on limited borehole data, groundwater pit inflows have been estimated at 1.8 L/day/m of exposed coal seam. This quantity is very small compared to surface water inflow and has therefore been excluded from the analysis." Ignoring the potential impacts of pollutants such as salinity on the operation of the water management system is considered to be a significant oversight. Issues with salinity impeding mine-site operations and deteriorating downstream water quality have recently occurred with the Ensham Coal Mine near Emerald (which is discussed further below). The proposed Wandoan Coal Mine is located in the Dawson River catchment, while Ensham Coal Mine is located in the Mackenzie River catchment. However, both of these catchments are part of the larger Fitzroy River catchment.	Response: Refer to Supplementary EIS Volume 1, sections 11.6.1 and 11.6.2.
28-5		High salinity levels are likely to be generated from catchments disturbed by mining. Salinity can be represented as electrical conductivity which is a measure of the dissolved salts in a substance and the estimates for the proposed Wandoan Coal Mine catchments are: • Overburden/Spoil Piles - The geological investigations undertaken for this EIS estimated the electrical conductivity of the overburden areas is between 280 and 1,080 uS/cm for fresh rock, and between 760 and 1,100 uS/cm for weathered rock. This overburden material is likely to be present in spoil piles, and possibly some excavations which become roads. Therefore, runoff from those areas are likely to have salinity levels comparable to those noted above. • Pit Water - The geological investigation for this EIS also found the groundwater is very saline. Within the Juandah Coal Measures the electrical conductivity was around 23,000 us/cm in the shallow seams, and between 8,000 and 18,000 us/cm in the deeper seams. These salinity levels are likely to be representative of pit water electrical conductivity levels.	Response: Refer to Supplementary EIS Volume 1, sections 11.5.5 and 11.6.2.
28-5		• Existing Creeks - The EIS indicates that baseline electrical conductivity values in the existing creeks draining the MLAs are around 200 to 220 uS/cm based on sampling conducted by the Department of Natural Resources and Water between 1985 and 2005 and MIM Holdings from 1985 to 1987. Recent sampling as part of this ELS demonstrates mean values are similar to these. It is evident from these EC values that the quality of the water from catchments disturbed by mining are much higher than the background values from the existing catchments draining the MLAs. The EIS has not considered any limitations associated with high salinity levels in water for reuse within the mine operations. Dewatering of pit-water for reuse is likely to be stored in environmental dams and this water will be mixed with runoff from cleared areas such as the Minesite Industrial Area. The ensuing water quality may become too poor for reuse in the CHPP. Similarly, the water may be too saline for use for road watering and dust suppression, or as a water supply for rehabilitation areas.	Response: Refer to Supplementary EIS Volume 1, sections 11.5.5 and 11.6.2.
28-5		If salinity levels are too high for reuse, this means that larger dams will be required to store the water, which may impinge on the size of open cut mining pits. Also, elevated salinity levels may mean it is not possible to discharge water to the environment as intended from the sediment dams as these will capture surface runoff from the spoil piles before they have been completed rehabilitated.	Response: Refer to Supplementary EIS Volume 1, sections 11.5.5 and 11.6.2.
28-5		The modelling results found that "During very wet periods, the combined capacity of the environmental dam return water system pumps will exceed the CHPP makeup demand, Additional storage will be required to temporarily hold the excess for later reuse, Modelling of the system indicates that the maximum volume required in this storage would be of the order of 12,000 ML..." The results discussion also found "... the dams are typically close to empty — with generally short periods during which they store significant volumes of water before being pumped out to meet water demands, The exception is during extended wet periods such as during the mid 1950s, when the dams would have remained close to full for periods of up to three months, as water collected in the nearby pits is gradually transferred out."	Response: Refer to Supplementary EIS Volume 1, sections 11.5.5 and 11.6.2.
28-5		It appears that the proposed water management system will rely on storing water in existing pits temporarily, "...A key component of the proposed system is a pipeline linking the western pits to the CHPP, so that excess water can be disposed of during very wet periods to reduce the risk of discharge." The discussion on modelling results further found ". ..during wet periods similar to the wettest on record, up to 12,000 ML of water storage in addition to the proposed environmental dams could be required to manage pit/process water from throughout the site without significant off-site discharges. If the quality of overburden runoff is such that water captured in sediment dams is unsuitable for release except in larger flows, this volume requirement increases to 26,000ML. A number of potential storage locations are likely to be available for this excess water."	Response: Refer to Supplementary EIS Volume 1, sections 11.5.5 and 11.6.2.
28-5		This discussion on modelling clearly indicates that when a large wet season rainfall event occurs, it generates significantly more runoff than during average rainfall periods, The wet seasons that create the need for additional storage requirements are likely to happen during wet seasons with a low probability, such as the 1 in 100 and 1 in 50 Annual Exceedance Probability (AEP) events. That is, that those wet seasons where the probability of their occurrence is around 1 or 2% respectively in any year. While the mining operation is only scheduled to last for 30 years, there is still a significant chance that one or more 1 in 100 AEP wet seasons will occur during that time (around 26% probability).	Response: Refer to Supplementary EIS Volume 1, sections 11.5.4 and 11.6.1.
28-5		Water quality should be simulated to try and estimate the likely concentrations of pollutants in the various environmental dams and sediment dams. It may be that the quality of water in those dams is too poor to release to the environment downstream of the mine, also there may not be enough water in the receiving water to dilute the impact. Also, there may be some operation considerations when it comes to water quality. That is, the water quality may be too poor for re-use on site (e.g. too saline for road watering and dust suppression, or in the CHPP). This may mean the mine is caught with poor quality in their dams and no water flowing in the creeks and an uncontrolled release of mine water to watercourses draining the mining area occurs. For example, a dam might be near full and there is a steady series of rain days over the mine catchment only, particularly as the MIA is likely to generate runoff from its catchment compared with the natural catchments in the receiving waters.	Response: Refer to Supplementary EIS Volume 1, section 11.5.4.
28-5		This very real scenario is similar to whet has happened at Ensham Mine (see below), so the statement that while. discharges from the water management system (sediment dam releases and overflows) grow over time, but make up only a small proportion of flows at the MLA boundary. By year 30, they make up only 5.2% of flows in the creeks downstream of the MLA. This potential dilution indicates that even if sediment dam water quality is worse than expected, the impact on downstream concentrations of potential contaminants is likely to be relatively small, if the receiving streams are flowing..." This assumed strategy is likely to cause operational difficulties at the mine and heighten the risk of a spill of poor quality water from the mine, contrary to the intentions nominated in the EIS. The issues described above appear to be very similar to the problems that occurred at Ensham Mine. The following extracts from EPA Media Releases describe some of the problems that occurred which ultimately had an adverse impact on the downstream environment and downstream water users.	Response: Refer to Supplementary EIS Volume 1, section 11.5.4.
28-5		Ensham Mine Media Release: EPA Media Release Jan 7. 2009 The Environmental Protection Agency (EPA) is closely monitoring the discharge of water from Ensham Mine's storage dams following recent heavy rain. Ensham Mine has advised that its three storage dams do not currently have sufficient capacity to hold the rainwater and it may have to discharge up to 300 to 500 megalitres of water from around the mine. However this will depend on the flows in the river, which are being monitored on a daily basis. Approximately 40-50 megalitres have been discharged to date. Ensham Mine has committed to ensuring that the salinity of the resultant downstream water discharge will not exceed 500 uS/cm (micro -Siemens per centimetre), which is well within their Environmental Authority limits. Initial tests indicate that water being discharged from the mine is around 300 uS/cm.	Response: Refer to Supplementary EIS Volume 1, section 11.5.4.
28-5		To avoid the recurrence of events last year with the deterioration of drinking water quality after flood water discharges. Ensham has also committed to increase the frequency of water quality monitoring both upstream and downstream of the mine, including analysis of a range of metals and other parameters. They have also committed to developing additional infrastructure to manage further rainfall events.	Response: Refer to Supplementary EIS Volume 1, section 11.6.2.

Submission Number	Submitter	Submission	Response
28-5	[redacted]	EPA Media Release 5 December. 2008 A number of mines in the region were also affected by this unprecedented rainfall event. In order to allow recovery of these mines after the floods, the Environmental Protection Agency approved a number of Emergency Directions and Transitional Environmental Programs under the Environmental Protection Act 1994, allowing the affected mines to discharge flood waters to nearby streams, subject to certain conditions. At the time the EPA issued these approvals it was identified that the longer the water remained stored in large mine pits, the greater the decrease in quality and potential effects on natural waterways, the aquatic environment and water resource users. The EPA consulted with mining companies, the Department of Natural Resources and Water (NRW) and the Emerald Shire Disaster Recover,' Team before approving the discharge of entrapped flood waters from flooded mines.	Response: Refer to Supplementary EIS Volume 1, section 11.5.4.
28-5		Ensham Coal Mine, 40km east of Emerald, was one of the most severely affected of those mines, being subject to rainfall and flooding that trapped a dragline and resulted in an estimated 150,000 megalitres (ML) of floodwater being collected in the mine. The EPA authorised the mine to discharge flood waters entrapped in this mine to the Nogoa River, which ultimately flows into the Fitzroy River, under strict conditions which were based on guideline values from the Australian and New Zealand Environment and Conservation Council (ANZECC) Water Quality Guidelines for Fresh and Marine Water Quality (2000) and were designed to protect the downstream environmental values of the river — including the use of the water for agricultural and domestic purposes, In the months that this work has been undertaken, water in the river has been monitored to assess any potential impacts.	Response: Refer to Supplementary EIS Volume 1, section 11.5.4.
28-5		In August 2008, water quality results for Bedford Weir downstream of Ensham Coal Mine, indicated that salinity was increasing in waterways, dams and weirs downstream of the Ensham discharge and that domestic water supplies for some townships using this. The results of this monitoring will be processed and placed on the EPA website within 2 weeks of being received. Queensland Health issued a health alert to the community about the potential health affect of increased salinity for those members of the public having to monitor their sodium intake. Ensham mine voluntarily ceased discharging water from the mine on 9 September.	Response: Refer to Supplementary EIS Volume 1, section 11.5.4.
28-5		Queensland Government Response A technical working group including a number of government agencies and experts was formed to further investigate issues associated with the situation and address the issues. Sodium levels in some drinking supplies were found to be above the aesthetic quality parameter of 180ug/L which is potentially a health concern for people on low salt diets and bottle fed infants younger than six months. The smell and taste of the water also caused concern for residents in the townships of Blackwater and Tieri. There were also concerns from the public that wildlife may be impacted by the elevated salinity.	Response: Refer to Supplementary EIS Volume 1, section 11.5.4.
28-5		On October 15th 2008, in response to community concern about these potential issues, the Premier, Anna Bligh appointed Emeritus Professor Barry Hart as her independent advisor and supervisor for an independent research project on the status of the Fitzroy River water quality. Subject to advice from Professor Hart, the study to be led by the EPA will monitor: -Contaminants (e.g. pH, conductivity and salinity) in the water column- Fortnightly -Contaminants in Sediments (including a range of metals) - Quarterly -Aquatic Invertebrate Species- Quarterly -Fish and Turtles- Quarterly -The results of this monitoring will be processed and placed on the EPA website within 2 weeks of being received.	Response: Refer to Supplementary EIS Volume 1, section 11.5.4.
28-5		On 16th October 2008, Minister for Sustainability, Climate Change and Innovation the Hon. Andrew McNamara, announced that a independent study into the cumulative Impact of mining on the health of the Fitzroy River be undertaken, lead by the EPA. This study will be completed and made available to the public by the end of the year. Investigations on options for remediation of the heightened salt levels in the Fitzroy River system are ongoing. This will include further stakeholder members joining the Technical Working Group and its continued operation with weekly meetings. Suggested solution: The long-term water quality concentrations for mine-site operations and in mine-site dams should be quantified and analysed through long-term simulations. This analysis should show the long-term water quality concentrations in dams and determine when, and for how long, water can not be reused in mine site operations, or if the inability to re-use water results in uncontrolled spills from mine-site dams. If uncontrolled spills do occur, quantify the ensuing pollutant concentration at the downstream boundary of the mining area.	Response: Refer to Supplementary EIS Volume 1, section 11.5.4.
28-6		Issue: The EIS noted that the groundwater pit inflow estimate "… will be confirmed and revised following future groundwater investigations. The effect of experiencing larger than expected groundwater inflows would be to increase the pit dewatering pump capacity requirement and reduce the volume of imported raw water to operate the CHPP, but would be unlikely to otherwise significantly alter the performance of the water management system." Given the lack of detailed understanding at this present point in time regarding the hydrogeology of the area, this task should be completed in order to confirm this assumption. Also is there a risk of recharging aquifers with poor quality from open cut pits if there are one or more pits with large volumes of water following extensive wet periods Is there a possibility it could seep into local aquifers or the Great Artesian Basin?	Response: Refer to Supplementary EIS, Volume 1, sections 10.8 and 11.6.3
28-6		Suggested solution: Undertake additional analyses to confirm the understanding of hydrogeology in the area. Assess the risk of open cut pit water that is stored for extended periods of time on contaminating aquifers in the region and the Great Artesian Basin	Response: Refer to Supplementary EIS, Volume 1, sections 10.5.1 and 10.8.
28-7		Issue: It is understood from reading the EIS that "low-toxicity" water only needs to pass through a sediment dam to make the water suitable for discharge. The EIS does not appear to address the affect on primary and agricultural yields downstream due to low-toxicity water. There are users downstream who harvest flows from the creeks for stock. For example, cattle may not like water drawn from the creek if sulphate levels are too high. Similarly there be an issue with high salinity water. Suggested solution: Identify acceptable water pollutant levels for downstream agricultural users and estimate the likely water quality for these downstream users when there are releases (either controlled or un-controlled from mine-site dams).	Response: Refer to Supplementary EIS Volume 1, sections 11.5.4 and 11.6.2.
28-8		Issue: The Environmental Protection (Air) Policy 1997 was adopted for this project that nominates certain goals that located near industrial sites and extractive industries. Are these guidelines applicable to human activity only? What are the impacts for agricultural land practices (e.g. beef cattle grazing)? The baseline and guideline values for the following key parameters were established: (see submission) The results provided for various years of mining (1, 5, 10, 20, and 30). Are there any other "mining years" when the air quality may be inferior to those years that have been investigated? All the air quality modelling results are interpreted against the guideline values, but these are well above the existing background levels, is this a valid comparison? In defining the background PM10 24 hour values for Wandoan, mention is made of two dust storms on 28 April 2008 and 19 September 2008 which mentions that PM10 24 hour levels were above 100 ug/m3. The modelling results indicate that the maximum predicted PM10 24 hour values throughout the scenario years investigated area between 75 and 150 ug/m3. While these maximums are less than the guideline values, the report does not provide an indication of the frequency of these events. That is, how oftern during the year does the PM10 24 hour value exceed the existing background level of 30 ug/m3, and say 50, 75, 100, 125 ug/m3? Currently in the EIS report provided it is not possible to determine how the air quality will deteriorate compared to the existing situation. The mapping	Response: Refer to Supplementary EIS Volume 1, section 13.2.2, 13.3.2, 13.5.3, and 13.6.2.
28-8		While people may be able to cope with the maximum level for short periods of time, high frequency experience of dust storms will most likely adversely affect resident's health and well-being. The guideline values are probably upper limits before people are affected. However, are these upper limits only acceptable periodically rather than continuous exposure? Should acceptable air quality parameters be defined for livestock? While dust deposition may not affect the growth of pasture significantly (as stated by the EIS), will the presence of dust on the pasture be unpalatable to livestock? Given the significant beef grazing activities in the area, this impact should be considered.	Response: Refer to Supplementary EIS Volume 1, section 13.2.2, 13.3.2, 13.5.3, 13.6.2 and 13.7.

Submission Number	Submitter	Submission	Response
28-8	[redacted]	Suggested solution: The results should also be compared against the adopted existing background values to enable the community to understand the potential impact more clearly, including the natural storm events and these events occurring concurrently with the various mining scenarios. This will allow the community to gain an understanding and appreciation of the extent and frequency of significant dust storm events in comparison to the mining activities. Modelling results to show how often during the year does the PM10 24 hour value exceed the existing background level of 30 ug/m3, and say 50, 75, 100, 125 ug/m3 to enable the community to comprehend the change from existing conditions. The mapping should show the extent of the base line levels to determine the extent of the mine impacts. Present a discussion on the modelling results in terms of their change to the existing background values. Quantify suitable goals for air quality acceptable to cattle.	Response: Refer to Supplementary EIS Volume 1, section 13.2.2, 13.3.2, 13.5.3, and 13.6.2.
28-9		Issue: The EIS identifies the various employment types in the Local Government Area (LGA) where the proposed Wandoan Coal Mine is located and in adjacent LGAs. Sheep, beef cattle and grain farming are classed as one employment type and it is the largest industry in the old Taroom Shire LGA. Within Wandoan the EIS establishes that agriculture, forestry and fishing represent about 46% of the employment share. The EIS provides a summary of income, earnings, and costs of housing based on Australian Bureau of Statistics Census data.	Noted
28-9		The EIS outlines the potential economic benefits as a result of the proposed Wandoan Coal Mine going ahead. What the EIS does not consider is the impact on existing revenues from the agricultural sector (for example) once the mining is finished. Given a significant proportion of the MLA (at least 39%) will have a lower class of agricultural land (see comments above in 9.6.5 — Post Mining Land Use), and there are risks to groundwater bore supply to the graziers, it is highly likely that the economic benefit of agricultural industries in the Wandoan area will decrease once the mine has closed. Any decrease may adversely affect the viability of farms, but also the township in general. Suggested solution: Quantify the revenues generated by the activities in Wandoan and the surround area and pre-mining post-mining to estimate the economic once mining activity has ceased in the area.	Response: Refer to Supplementary EIS Volume 1, section 22.5.5.
29-1	Wandoan Tennis Club	The members of the Wandoan Tennis Club Inc. are concerned about the close proximity of mining to our facilities. We are especially concerned with the working of the Frank Creek pit, but also hold concerns with the Leichhardt Pit and the possibility of another pit to be developed to the south of Wandoan town. The clubhouse constructed in 1986 is close to the Leichhardt highway which is within 500 metres of mining and 600 metres of blasting. Our club has a membership of appox. 50 adults and 40 juniors and we hold regular competitions during the year, playing 3 nights a week, as well as social days and junior coaching on Thursday afternoons. The club not only provides a sporting venue but is a social meeting place for all ages in the community.	Response: Noted and Refer to Supplementary EIS Volume 1, section 6.3.2.
29-2	Wandoan Tennis Club	Blasting: • The WJV will undertake, with the cooperation of landowners, condition surveys of buildings And structures within 2 km of blasting activities prior to commencing blasting operations. • Subject to the findings of the condition surveys, the WJV may implement specific mitigation measures for potentially affected structures. • Where buildings or structures are impacted by blasting operations undertaken by the WJV (taking into account the baseline condition surveys), the WJV will “make good” the impacts to buildings or structures from the blasting operations. Will blasting take place within 2k of our facilities? Who will pay for a survey when it is needed? Does ‘building or structures include the surface of the courts? Does it include the fencing surrounding the courts? Does it include the area around the courts which are used for parking etc? Will this affect our insurance? If it does, who will pay for the increase?	Response: Refer to Supplementary EIS Volume 1, section 16.4, 16.5.2, 16.6.2 and Figure 16-4-SV1.3.
29-3	Wandoan Tennis Club	Odour: ‘Waste water treatment plant odour sensitive places for this project include: • The Wandoan Health Care Centre • Cultural Centre • Community pool • Show grounds • Shotgun club • Sports facilities • Shops and business premises • Residences Why is no mention made of the Juandah Gardens or the Tennis Club which are situated between the Wandoan Health Centre and the Cultural Centre? What is considered acceptable? Will monitors be installed for odour? Where will these be set up? Will they operate at night? Our main tennis fixtures are played on 3 nights of the week all year when odour is stronger, and being an outdoor activity odour could make playing very unpleasant.	Response: Refer to EIS Volume 1, section 13.5.3, and Figures 13-41-V1.3 to 13-43-V1.3, and Supplementary EIS Volume 1, section 13.5.3.
29-4	Wandoan Tennis Club	Dust: Concern is felt about the affect of dust. Will monitors be installed for dust? Where will these be set up? Will they operate at night? What will be the position if dust levels are unacceptable? What are the accumulated affects on playing surfaces (the cost of redoing 2 courts is approx. $40,000) What are the accumulated affects on buildings? If extra maintenance is required, who will pay for this? Will dust affect children who use the courts on a regular basis?	Response: Refer to Supplementary EIS Volume 1, sections 13.2.2, 13.2.3, 13.5.3 and 13.6.2.
29-5	Wandoan Tennis Club	Light: Will lights from working machinery affect play on the courts?	Response: Refer to the Supplementary EIS Volume 1, Chapter 19 Visual Amenity, section 19.5.3.
29-6	Wandoan Tennis Club	Noise: Tennis is a social sport and the ability to hold a conversation between games is important. Will noise from the mine workings affect this?	Response: Refer to Supplementary EIS Volume 1, section 15.5.3.
30-1	[redacted]	Please find attached my submission for the above project. I have an interest in the area as my Aunt and Uncle currently live at a property adjacent to proposed mine on Peakes Road. My grandfather, Harry Peake built the Trelinga Homestead and raised his family. I have frequently visited in the area since the 1970’s and can understand the impact that this may have on the Wandoan community.	Noted
30-1		The significant potential impacts of the mine on the community and surrounding land I believe are: • Current Land Class — the EIS classification of the soils is Class B where as the Taroom Shire Town Plan identifies it as Class A. • Post Mining Land Use Classification — Reduction from Class 2 (viable) to Class 3-5 (requires significant improvement to be viable) and the impact this will have on the community in the long term. Effects may be loss of income and increased feral weeds and animals. This may have flow on affects to adjacent properties. Long term impact for the area versus the short term gains based on environmental, social, community and economic grounds. • Hydrogeology — impact on existing bores for agricultural purposes.	Response: Refer to Supplementary EIS, Volume 1, sections 9.3.7, 9.3.9, 9.5.6, 9.5.7, 9.6.5, 9.6.8, 10.5, 17A.5, 22.5 and 22.6.

Submission Number	Submitter	Submission	Response
30-1	[redacted]	• Air Quality — the EIS identifies that areas will be significantly affected but are within the acceptable guidelines (the bench mark). The bench mark, however should not be the maximum threshold that humans (and animals?) are expected to endure. Rather it should be compared to the existing levels over a range of seasonal variations, including infrequent natural dust storms. Providing an indication to how often the proposed air quality will exceed the natural conditions would be informative and how this compares to a natural event (say the dust storms in 2008). This would then provide the people in the area with the ability to see how the mine will affect them. In addition it would appear that air quality indicators are at the residential areas of the properties, however for the farmers the whole of the property is their working environment and this should be reflected in the tables showing the full range. • Surface Water Management — consideration on prolonged wet weather periods and the possibility of the mine being longer than the 30 year design life and the impact that this may have on sizing dams based on the frequency of events over a longer period. The impact on the eco system and agricultural sectors should a spill occur. These are explained in more detail in the attached table.	Response: Refer to Supplementary EIS Volume 1, sections 11.2.3, 11.2.4, 11.4.5, 11.5.3, 11.5.5, 11.6, 13.3.2, 13.3.3 and 13.5.3.
30-1		I therefore believe additional work should be undertaken to refine the EIS for these issues mentioned in my submission and other such submissions. Should you require any further clarification, please contact me at the address below.	Noted
30-2		Issue: • It took over 4 hours to download, print, bound the EIS and supporting documentation using a high speed Internet access, and commercial printer. For properties directly impacted, this includes those properties that will be affected adjacent to the mine), a hard copy (coloured) document should have been provided! Using dialup connection at the farm and a small printer would have taken a long time to print out. • While public copies were available at libraries and other locations, given the amount of reading material it would be unrealistic to expect the farmers (and others in the area) to spend hours reading at the public libraries. In addition should the copy at the library be being used it would limit other users. • Reading it on the computer is not the same as having a hard copy to peruse and write on etc. • Having a separate document for the figures was good, however a cross reference which includes the document page number of the text document on the figures volume back to the text would have been good (ie Figure 17.5 could be found on page xxx of volume 1).	Noted
30-3		Suggested solution: Provide both digital copies (via CD) and paper copies to those people in the area (especially in adjacent farms, and the town people) who will be impacted. While producing quite a number of the documentation is expensive, the cost can be reduced when produced in bulk. The considerable cost of time and energy of each individual downloading the material and printing should be considered.	Noted
30-3		Issue: • At the homestead of Trelinga (built by my Grandfather Harry Peake and his family), (Peakes Road) there are at least two sections of remnant vegetations (to the east of the dairy) that were deliberately left by my Grandfather for future generations and for the wildlife — will these be protected? • There is quite amount of petrified wood on the property can this be relocated? • The bottle tree beside the homestead is one of the tallest in Qld, will this be preserved? • Is it possible to enable Trelinga homestead to be relocated if the area is being mined? The homestead is a distinctive style and unique in the area. • The visual impact of the mine from the adjacent farms will be negative. • From discussions with and listening to the local people within the area, there is fear that there will be a 'us' and 'them' case with the setting up of a mining camp. In addition the doubt that there will be positive social, cultural, and economics flow on benefits to the local people.	Response: refer to Supplementary EIS Volume 1, sections 17A.3, 19.5.3, 19.6, 20B.4, 20B.5.2, 20B.6, and 21.8.
30-3		Suggested solution: Preservation of Remnant vegetation Relocation of Petrified wood Retaining the bottle tree — one of the largest in Qld beside the Trelinga Homestead. Relocation of the Trelinga Homestead.	Response: refer to Supplementary EIS Volume 1, sections 17A.3, 19.5.3, 19.6, 20B.4, 20B.5.2, 20B.6, and 21.8.
30-4		Issue: Beef cattle grazing is a major industry in this community. The EIS identifies that the classification of land will be reduced form Class 2 to class 3-5. As a result of the land being a lower classification, the ability for economic uses of the land is likely to be reduced. If the land does become economically unviable, this could lead to an increase in weeds and feral animals due to lack of interest to maintain unviable land. This may cause problems for neighbouring properties. Has an economic /environmental analysis been carried out on the impact that this will have on the Wandoan community? Suggested solution: Identify potential management strategies of the land if it is not economically viable to farm to ensure that weeds and feral animals are actively controlled Economic analysis and comparison of the short (30 year) benefits of mining the area, against the long term sustainable agricultural use of this land.	Response: Refer to Supplementary EIS, Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8, 17A.5, 22.5, and 22.6.
30-5		Issue: This section states that the previous Taroom Shire Planning rates these areas as Class A. This EIS has downgraded this to a Class B stating that this is more appropriate, There are no references cited to enable the reader to draw this same conclusion. In addition I can remember heading out to Wandoan in the '80's when the wheat solos were filled and land situated between Jackson Road and Highway/Peakes Rd had temporary storage facilities. Suggested solution: Provide information to identify the change in classification of the soils has been adopted by the local and state government.	Response: Refer to Supplementary EIS, Volume 1, section 9.3.7.
30-6		Issue: Impact of the mine on the bore water with respect to current farm usages. Suggested solution: Identify potential management strategies to be put in place for land owners if as a result of the coal mine the groundwater becomes irreparably damaged and prevent the area being farmed. Further long term studies.	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
30-7		Issue: While the mine has a 30 year life expectancy, it may be a lot longer than this. Has the analysis considered the impact if the mine time frame was extended with respect to major rain events. Scientist indicate that the frequency of storm events may be increasing under the influence of climate change — has this been taken into consideration. Suggested solution: Undertake modelling based on a longer mine life then planned e.g. 50 or 60 years.	Response: Refer to Supplementary EIS Volume 1, Chapter 1 Introduction, section 1.5.3.
30-8		Issue: The EIS provides comparisons against the guidelines. These values in the guidelines are up to five times the current levels (e.g. PM1O for 24 hours is currently 30 ug/m3 yet the guidelines can permit up to 150 ug/m3) The buffer around the mine should enable the neighbouring properties to maintain current air quality. Beef raised on MLA484 is exported to overseas market (currently Europe). Will the quality of the beef be affected, and will the market value be reduced due to the surrounding mining, the export market I would assume is very competitive — a coal mine next door may subjectively reduce prices of the meat Suggested solution: Provide a comparison of existing background air quality levels in comparison to what is proposed. This should include proposed average levels, maximum levels, and some historical events such as the dust storms in 2008. This will enable the lay person looking at the figures to assess how the mine may affect them.	Response: Refer to Supplementary EIS Volume 1, sections 13.2.2, 13.2.3,, 13.3, 13.4.6, 13.5.3, 13.6.2 and 13.7.
30-9		Issue: The entire property is generally classified as a work place for the farmer. Therefore it is important to know the range of values for a given property. For example, for the property identified as MLA484 the air quality at the western section of the property would be similar to the values at MLA5O5. The tables should provide a range of expected values (i.e. minimum, average, maximum) as well as the expected frequency of such events as discussed above. Mitigation options of the air quality include planting of trees. Has an assessment being made to how fast the trees will grow to provide a wind break. Will this also have a negative impact on current views? Suggested solution: Provide an analysis of the potential impact that the coal mine may have on the markets currently receiving the produce from the area. As well as the map, provide a table with the range of expected air quality (as interpolated from the mapped results) for the affected properties (the whole of the property not just at the house) under each of the scenarios for each year. This table to include a comparison with existing background levels, dust storm event of 2008, and the guidelines and provide it as a ratio to the current back ground levels. To clearly indicate what sort of frequency any reading above the existing levels. Provide this sort of information to other properties and to the residences in town.	Response: Refer to Supplementary EIS Volume 1, sections 13.2, 13.3, 13.4.6, 13.5.3, and 13.6.2.

Submission Number	Submitter	Submission	Response
31-1	[redacted]	Issue: The Trelinga homestead was built by a returned soldier and is an masterpiece of the building skills of self taught bush carpenters that ought not to be lost to posterity. It is situated beside the tallest bottle tree I have ever seen. The sand for foundations was all carted 30 kms on a two ton truck having been loaded by hand, all of the foundation trenches were dug by pick and shovel and the concrete was all mixed by a small motorized mixer. This house is a real credit to its designer and builder. Suggestion: A structural and architectural heritage assessment needs to be conducted on the Trelinga homestead with a view to its long term preservation on its present site and listing on the Qld heritage register.	Response: Refer to Supplementary EIS, Volume 1 sections 20B.5.2 and 20B.6, and TR 20B-1-SV1.5, section 2.6, sub-section Item 28, and sections 3.1 and 4.1.
31-2		Issue: It is planned to house a large proportion of the workers on site to the north of the mining lease well away from Wandoan. However this will limit the economic and cultural advantage to Wandoan. If the camp is close to Wandoan and the town infrastructure increased to accommodate the influx this will improve the towns facilities for the long term future. Suggestion: Plan to erect the accommodation close to Wandoan.	Response: Refer to EIS Volume 1, section 2.14.
31-3		Issue: The effect of mining dust on pastures and roof catchments of rain water. Have any studies been done in other similar areas to Wandoan that would assure graziers and farmers that mining dust won't affect the palatability and nutrition content of grass/pasture! Crops for cattle and horses? This area is renowned for being a top cattle fattening area and quality assurance is desirable and necessary for continuing business operations. As drinking water is harvested from rooves into storage tanks will the quality of this water be downgraded needing the water to be treated before use? While there is the mitigation of dust over the town using truck and shovel instead of a dragline when the Frank creek Pit is being mined, the town will still be subjected to higher dust levels which could jeopardise the town folks health and way of life. Suggestion: Independent monitoring of dust levels. If there is a negative effect from this then compensation may be sought from Xstrata. Filter systems may need to be provided to all affected households. Mining of the Frank Creek Pit should abandoned, as it is too close to the town.	Response: Refer to Supplementary EIS Volume 1, section 13.5.3, and 13.6.2, 13.7.
31-4		Issue: An assurance is needed to be given that existing farm bores will not be negatively impacted through blasting either in regard to the casing as well as flow and existing quality. What impact will the mining activities have on the bores in the MLA, and subsequently on bores outside the MLA? The grazing business where MLA 484 is, depends almost wholly on its bore for stock water and its business would be highly compromised if the bore was to be damaged in any way through blasting. Building foundations in town and on surrounding properties to the MLAs need to be assured that cracking from blasting will not occur. Table 16-9 show no sensitive receptors in the town region. According to the EIS the town will not suffer these problems after mitigation plans are put in place, but because of our uncertainty of blasting effects on such structures, or mining plans that may occur, assurance are need to be given. Suggestion: If problems are experienced with bores and/or structure foundations then compensation would be requested.	Response: Refer to Supplementary EIS Volume 1, sections 16.5.2 and 16.6.2.
31-5		Issue: Have any studies been done to assess noise effect on cattle management and growth? It's shown in Scenarios 3c/d and 6 an increase in noise levels for area of MLA484 and although these are predicted to be at satisfactory levels for it is so for the well being of cattle? Suggestion: Noise studies for tattle should be available. Independent monitoring should be carried out.	Response: Refer to Supplementary EIS Volume 1, section 15.3.2.
31-6		Issue: What impact will the mining activities have on bores in the MLA, and subsequently on bores outside the MLA? The EIS states in 18.6.2 WATER, "Whilst groundwater resources of the Project area are generally limited, there may still be some potential for contaminants to move through the top soil profile and enter groundwater contaminated groundwater could adversely affect users and ecological processes of groundwater dependent or groundwater affected ecosystems." These statements sound alarm bells for those who depend on this water source for their living.	Response: Refer to EIS Volume 1, sections 10.5 and 10.6, and Supplementary EIS Volume 1, sections 6.4.4, and 10.8.
31-7		Issue: The final state of the land after mining will be downgraded. How will the town of Wandoan be impacted when over half of that farming land may not be productive enough to support worthwhile farming enterprises? The expense of inputs to get production) may well be unviable, and the prosperity of the community will then be negatively affected.	Response: Refer to Supplementary EIS Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8 and 22.7.
32-1		Issue: Grosmont State School —(Dust, Air, Water, Noise) The mine operation will be conducted about 4700 metres to the south west, and 4300 metres to the south of the school. Suggested solution: -Filters will need to be installed on the rain water tanks to prevent potential health problems. (dust arising from mining activities). -Glaze windows. (noise) -Sprinklers installed where children play. (dust) - Soil samples to be taken every 12 months, in school grounds.	Response: Refer to Supplementary EIS Volume 1, sections 13.2.2, 13.2.3, 13.3, 13.6.2, and 15.6.2.
32-2		Issue: Grosmont State School - Mine operations will be conducted about 1600 metres to the south west, of where the Water Bore is situated that supplies the school (This water is only used for septic, ovals and gardens). This bore is a community bore, which is tapped in to the great artesian basin. Suggested solution: As this is the only water supply, other than rain water for the school, this bore needs to be carefully monitored for potential damage due to mining operations.	Response: Refer to Supplementary EIS Volume 1, sections 10.8, 16.5.2 and 16.6.2.
32-3		Issue: Children do not need to see an on going distraction of mining operation while in class. Suggested solution: Tree planting/Bafflers need to be erected to block view of mining activities. Windows tinted.	Response: Refer to Supplementary EIS Volume 1, section 19.6.3.
32-4		Issue: Cemetery Xstrata have indicated at public meetings that the mine operation will be running 7 loaded (& 7 returned) trains in a 24 hour period. The rail spur will run about 500 — 600 metres at it's closes point from cemetery (mine plan). Suggested solution: - WJV consider ceasing rail movements, as not to interfere with the operations of funeral services. - Barrier erected/Tree planting between rail and cemetery.	Response: Refer to Supplementary EIS Olume 1, section 15.6.2 and 19.6.3.
32-5		Issue: Cemetery - Positive Suggested solution: WJV will cease blasting operations of Leichardt pit, so not to interfere with the operations of funeral services.	Response: Refer to Supplementary EIS, section 16.5.2 and 16.6.2.
32-6		Issue: Town businesses - How do they survive when about 36 families have to move because of the Wandoan Coal Project. (loss of income) Suggested solution: Longer lease back options, to encourage families with in the MLA to stay longer and support the town businesses.	Response: Refer to Supplementary EIS Volume 1, sections 6.10 and 21.8.
32-7		Issue: Mining operation will introduce people to the area, but will not all live at Wandoan (fly in/fly out) different cliental. Suggested solution: Fly in/fly out workers are unlikely to become community involved and WJV need to promote workers and families to live locally.	Response: Refer to Supplementary EIS Volume 1, section 21.8.
32-8		Issue: Removal of topsoil, overburden & Land Rehabilitation — Suggested solution: I feel the only safe way of removing topsoil is with scrapper, and then after removal of coal and levelling with the over burden, the topsoil needs to be redistributed by scrapper.	Noted
33-1		Issue: Project Approvals C3 COPY Page 13 The following stock route infrastructure is located within the Project area: • unnamed stock route located adjacent to the Leichardt (sic) Highway (Stock route number: M423 [inactive minor stock route]) • Jackson — Wandoan Road (Stock route number: U7708 [inactive stock route]) • Bundi Road (Stock route number: U734 [inactive stock route]) • Camping and Water Reserve R.15 (Lot 58 on FTLO13), Correspondence from the WJV to DNRW (Stock Route Management Unit) requested views regarding the possible closure and relocation of the existing stock route infrastructure listed above. At the time of EIS preparation, no response has been received from NRW. This will be addressed as part of the future Project design and approvals phases.	Response: Refer to Supplementary EIS Volume 1, section 3.3.14.

Submission Number	Submitter	Submission	Response
33-1	[redacted]	Solution: Who claims these stock routes inactive? Even if they are should they be closed? They are still an Option to move large numbers of stock through the area. The first mentioned M423-happens to he the part of the main Stock Route from the north, beyond Taroom, to the south, Miles and Goondiwindi with regular stock watering facilities. Parts of this Route are often in use. Check with Cameron Hansen and Taroom Shire Council as to the number of stock that move along the routes over the last few drought years.	Response: Refer to Supplementary EIS Volume 1, section 3.3.14.
33-2		Issue: 4.31. Community Survey COPY Page 5 Most Wandoan participants could not identify any dislikes about living in their area other than the poor employment opportunities. Residents from both Taroom and Miles indicated that the lack of services, including health, was the main disadvantage of the area. Solution: We find this very hard to believe as Wandoan first requirement is always for better health facilities (especially the regular services of a doctor) Could we see copies of these responses?	Response: Refer to Supplementary EIS Volume 1, section 4.3.1.
33-3		Issue: Sense of Community COPY Page 44 "The Project recognizes the important sense of community, the sense of security, participation in community events, and the volunteer mentality. WJV aims to embrace, encourage and enhance these aspects of the community". Solution: Could more details be supplied on this? This statement is very broad and really has little substance.	Response: Refer to Supplementary EIS Volume 1, section 21.8.
33-4		Issue: CLIMATE Copy Page 1 "The climatic data sites consist of the Australian Bureau of Meteorology (BOM) weather stations at Taroom and Miles post offices (which cover the northern and southern extents respectively) and the privately operated Jondale weather station located just outside Wandoan (representing the central locality of the Project). " Solution: Why are climate figures (rainfall, temperature, winds etc.) here and in other parts of the EIS based on Figures from Taroom and Miles? It will be noted that Miles is on another water shed to the Mine Lease being on the western side of the Great Dividing Range while the Mine Site is on the eastern side. Who owns the Jondale weather station? Where are the southern boundaries of the MLA? This section speaks of the Condamine catchment which is on the western side of the Great Dividing Range. Does the lease extend this far?	Response: Refer to Supplementary EIS Volume 1, sections 7.2 and 6.2.
33-5		Issue:11.2.3 COPY Page 23 "Given the nutrient pollutants identified and agricultural land use in the MLA areas, nutrient pollutants are likely to result from fertiliser application and other nutrient concentrating activities. Solution: Here, as in many places throughout the EIS the use of fertilizer is mentioned. While the district has been and continues to be, a cropping district with large quantities of Prime Hard Wheat and other crops grown fertilizer is seldom if ever used. This has been confirmed by the Stock and Station Agents (Elders. Wesfarmers and GDL) and local knowledge. It is understood that this mistake could have arisen due to natural elements in the soil and water. However, as it gives a very mistaken view of the land and its natural value and fertility, could it he corrected?	Response: Refer to Supplementary EIS Volume 1, section 11.3.6.
33-6		Issue: 12.2 Copy Page 2 "To the southeast of the Project, the Warrego Highway connects Miles to Toowoomba and continues further east to Brisbane. " Solution: Why not mention that the Leichardt Highway continues and connects to inland NSW — could he important for transport of large equipment?	Response: Refer to Supplementary EIS Volume 1, section 12.3.1
33-7		Issue: 17B.21 Copy Page 2 "The Fitzroy Basin drains into the Shoalwater and Corio Bays Ramsar site, a Wetland of International Significance (Department of Environment, Water, Heritage and the Arts (DEWHA) 2008a). The Ramsar wetland is approximately 620 km downstream from the Project area. The Project is not expected to result in a significant impact on these areas." Solution: This is mentioned, in other places in. the P15. A study of a map of central Queensland will show that the Fitzroy Basin does not drain into Shoalwater Bay As any overland flow from the MLA will flow into the Dawson River and thence into the Fitzroy River. which. enters the sea at Keppel Bay. while the Shoalwater is approximately one degree (over I 00 Km) NORTH of the Fitzroy mouth, how could the MLA affect the Shoalwater?	Response: Refer to Supplementary EIS Volume 1, section 17B.2.1
33-8		Issue: 17 Copy Page 7 "The Class 2 declared pest parthenium (Parthenium hysterophorus) is likely to grow adjacent to Mud and Juandah Creeks and tributaries, in the north of the MLA area. Further details on declared plants are provided in Chapter 17A." Solution: We are extremely concerned at the suggestion that Parthenium is present in large quantities and over a wide area in the MLA. Parthenium has been controlled in the area and is only found in small areas where it is being closely monitored. This may give the impression that Parthenium is out of control. Would the EIS confirm that every endeavour will, be made to control all declared weed, in particular Parthenium, and that every effort will be made to prevent it entering or leaving the MLA and to control any within the MLA?	Response: Refer to Supplementary EIS Volume 1, sections 17A.3.4 and 17A.5.2.
33-9		Issue: 19.4.1 Copy Page 15 "The eastern limit of the MLAs is defined by the Leichhardt Highway, which is the main link from Wandoan to Miles southbound and Wandoan to Taroom northbound. The township of Wandoan is immediately east of the highway adjacent to the Frank Creek Pit. The northern limit of the MLAs is located approximately 4 km north of Booral Road and approximate 1.5 km south of K Road, with the majority of Booral Road inside of the MLA. The western mining limit for the MLAs falls to the east of a small ridge adjacent to Horse Creek." Solution: Could the EIS state the southern boundaries? There is much uncertainty in this regard, and landholders and others need these boundaries to be clearly and. finally defined, 21.5.2	Response: Refer to Supplementary EIS Volume 1, section 6.2.
33-10		Issue: 21.5.2 Copy Page 9 "There is only one high school in the region," Solution: While this is strictly true, it does not take into account, the 'High Tops" which have students for years eight, nine and ten in Wandoan and Taroom. There is also an official school bus service from Wandoan to Miles High School. Can this be written into the EIS?	Response: refer to Supplementary EIS, Volume 1, section 12.5.3
33-11		Issue: 23.3.1 Natural Disasters Copy Page 5 "Mitigating the Adverse Impacts of Flood, Bushfire and Landslide (SPP 1/03) requires that the risk of bushfire, flood and landslip be considered. Council mapping shows that the MLA areas is in an area of low bushfire risk (refer to Chapter 7 Climate). Small patches of land to the west and portions of land to the east of the Project area are classified as being 'medium bushfire hazard' due to shrub and tree cover. Overall, the existing risk to the MLAs and adjoining areas as a result of fire is expected to be low. " Solution: While the area could. be considered a low bushfire risk at the PRESENT time. this would be very different when there are no landholders in resident, no cattle and no fire breaks made. Much of the MLA is boarded by public roads where fires may easily start from bottle and cigarettes discarded. The EIS appears to be mainly concerned with tyres from machinery and in the coal dust, but consideration should also he given to fires from lightening strikes and starting on the roads. Will a plan and policy to cover this be part of the EIS?	Response: Refer to Supplementary EIS Volume 1, section 7.8.

Submission Number	Submitter	Submission	Response
33-12	[redacted]	Issue: 28 Table 28-1 Copy Page 15 Issue: The WJV will undertake, with the cooperation of landowners, condition surveys of buildings and structures within 2 km of blasting activities prior to commencing blasting operations. • Subject to the findings of the condition surveys the WJV may implement specific mitigation measures for potentially affected structures. • Where buildings or structures are impacted by blasting operations undertaken by the WJV (taking into account the baseline condition surveys), the WJV will "make good" the impacts to buildings or structures from the blasting operations." Solution: Does this include Wandoan — Health Centre, Tennis Courts, Juandah Gardens, (units for older citizens) Community Culture Centre (Hall)? How much of the rest of the town is within 2 kms when blasting no closer than 600 m of Leichhardt Highway. Who pays for inspection? When should it be done?	Response: Refer to Supplementary EIS Volume 1, section 16.6.2.
33-13		Care of the Land: A large area of the MLA area will not be covered by pits or the associate machinery and infrastructure. Even land that will, be mined may wait up to 32 years to be affected. While the EIS speaks of mining and of restoration of the land mined, it nearly wholly ignores the land that has not been mined. The district is a strong cattle breeding, growing district and produces good quality crops especially wheat, The district has a very strong reputation as a good growing area.	Noted
33-13		The protection of the land for present and future agriculture use will have many benefits: I. Provide food, especially protean, to a growing population. 2. Be to the financial advance of Xstrata when the mine is decommissioned. 3. Greatly assist the town of Wandoan	Noted
33-13		Therefore it is strongly believed that: 1. The size of the MLA should be reduced to a more realistic level, 2. A plan be drawn up with intention of preserving the land for agriculture use. In a world of increasing population the need for food, especially protein is of vital importance. Items which would need plans and work would include — but not limited to:	Response for 1: Refer to Supplementary EIS Volume 1, section 1.2.1. Response for 2: Refer to Supplementary EIS Volume 1, sections 9.5.6, 9.5.7, 9.6.5 and 9.6.8.
33-14		WEEDS — Declared Plants: This is of major concern — for the future of the land and for neighbouring areas. There are misleading statements in the MLA: Volume 1, Book 2, 17A.4.5 WEEDS AND PEST SPECIES on page 15 states: "The majority of the vegetation within the study area, however, already, has weed growth. Therefore, the overall extent of habitat modification is not likely to increase significantly."	Response: Refer to Supplementary EIS Volume 1, sections 17A.3.4 and 17A.5.2.
33-14		Volume 1, Book 2 17B.3.1 Page 7 states: "the Class 2 declared pest parthenium (Parthenium hysterophorus) is likely to grow adjacent to Mud and Juandah Creeks and tributaries, in the north of the MLA area. Further details on declared plants are provided in Chapter 17A." Parthenium is found only on two places in the area — affecting two properties at each area. One originated on a property owned by Xstrata. Xstrata has proved not to have an understanding of the importance of dealing with this weed quickly and thoroughly. Many people are not aware of the damage to the land and to people health that parthenium can cause. Much work has been done to keep this pest at bay. Every effort should be made to continue this. This may involve the wash down of machinery ENTERING AND LEAVING the area as well as continuous surveillance within the MLA area and buffer zones.	Response: Refer to Supplementary EIS Volume 1, sections 17A.3.4 and 17A.5.2.
33-15		Water Courses: Throughout the MLA, parts of watercourses have been protected by fencing at the cost of much money, time and labour which was provided by Landowners and also such organizations as Greening Australia. These should be maintained as long as is practical within the mining regime. This would involve regular inspection, repairs and maintenance.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2.
33-16		Contour Banks: Again these have been built over the years by landowners and protect the land to a great extent from erosion, and wash, in harsh summer storms. These should be maintained to protect the land, and may need to be added to or altered as the land form changes with mining.	Response: Refer to EIS Volume 1, section 9.6.3, and Supplementary EIS Volume 1, section 9.6.3.
33-17		Feral Animals: Although there will be a large number of people and machinery on the land, they wilt be concentrated in small areas. Without the constant checking and controlling by land-owners there is a strong likelihood that these will increase. These (especially pigs) would not only be very bad for the environment, but would quickly spread to neighbouring areas.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2
33-18		Aggressive Plants and non-declared Weeds Native but aggressive plants including lime bush and Popular Box will take over the land if left to themselves, and should be controlled. Mimosa will also cause problems, being a very good cover for such animal as pigs. Other non-declared weeds should also be watched and if necessary controlled.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2
33-19		Cane Toads: While not a declared pest Cane Toads can cause un-balance in the native world. With extra light to encourage more insects, areas of water from disturbed land, and the absent of people on much of the land, it could be expected that the number of Cane Toads would expand. These should be controlled to keep a balance. Fire. With large area of country being destocked of cattle, the vegetation will become very matted and if fire gels into these areas, will be very hard to stop if planning for control is not carried out. The Leichhardt Highway, in common with other Highways, often have fires started from discarded cigarette and glass bottles. Lightening strikes also start fires.	Response: Refer to Supplementary EIS Volume 1, sections 7.8 and 17A.5.2.
33-20		Kangaroo and Emu population are again likely to increase — have to be kept in balance.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2
33-21		Leasing: If there was long term arrangement to lease, or sub-lease, the land to present land-holders this would result in much less disturbance to the town of Wandoan, as people would leave the district over a period of time. Also, as land was no longer required for a buffer zone, or mining, and/or had been restored, it would be resold. This would ensure the continuation of the town, and leave to a more stable population. While agriculture is not a core business of Xstrata it would be in their interests financially and PR to employ personal who are agriculture based. People (not mining or conservation) to oversee these matters. The land will be worth a great deal more at the end of the mining. The EIS is very vague as to what will happen to land not being mined — i.e. will it be leased? And will there be checks on such as above. Human nature would say 'it will be ripped up for mines, so who cares." This is to be avoided. (Evidence of this can be seen on land in the district, leased from a mining company.)	Response: Refer to Supplementary EIS Volume 1, sections 6.10, 9.6.5, 9.6.8, 21.8, 25.4, and 25.5.
33-22		The questions that were not answered by the EIS and one which deeply worries the people of the Wandoan district is: What happens to the land after mining?	Response: Refer to Supplementary EIS Volume 1, sections 6.10, 9.6.5 and 25.4.6.
33-22		What happens to the land which is in the MLA but is not covered by pits or other workings or infrastructure?	Response: Refer to Supplemenatry EIS Volume 1, sections 9.5.6, 9.5.7, 9.6.5 and 9.6.8.
33-22		These questions are not fully answered in the EIS although it would be thought that such questions would be an important part of planning.	Noted
33-22		There were brief mentions of 'fencing of renovation land from stock although no mention of what stock—cattle or native animals. There was also a brief mention that 'Landholdings, within the MLA areas will be used for either grazing or nature conservation; but no mention of land outside the MLA.	Response: Refer Supplementary EIS Volume 1, sections 1.2.1 and 9.6.3.
33-22		The buffer zone is very large; is it necessary to be this large? It is noted that even with this large buffer, the buffer between the Frank Creek Pit and the town of Wandoan and the Leichhardt Highway is of a minimum distance. Is it necessary to mine so close to town?	Response: Refer to Supplementary EIS Volume 1, section 6.3.2.
33-23		'Wandoan Residents highlighted the high community involvement is an important aspect of their community (V.1, Bk, 2 Cp 4 pg 5) and much of this involvement is supplied by landholders in the MLA and the buffer zone. There are a number of reasons for this, a strong one being their closeness to town, and the time lived in the district. □	Noted
33-24		The Project recognises the important sense of community, the sense of security, participation in community events, and the volunteer mentality. WJV aims to embrace, encourage and enhance these aspects of the community (V1, Bk 2, Cp 6, Pg 44), therefore why would they not encourage and develop these aspects of the community, by granting long term leases on land purchased? Long term leases would allow for a gradual change over from an agricultural to a mining town, and would be of benefit to all—the town, the landholders and would reflect favourably on Xstrata.	Response: Refer to Supplementary EIS Volume 1, Section 6.10

Submission Number	Submitter	Submission	Response
33-25	[redacted]	If the land was then returned to private use as soon as possible this would also help the town of Wandoan return to an agriculture town when the mining is finished. Have plans been made for this? Will the land be re-surveyed after mining? What size will the new properties be? Will they be of a viable size that will allow them to be managed by a family?	Response: Refer to Supplementary EIS Volume 1, section 6.10.
33-26		Volume 1 Book 2 Chapter 23 mentions the possibility of the danger of snake bite. Of greater concern in this situation, is the likelihood of bites from spiders, ants and insects, which cause an allergy reaction. Wasps, hornets, bees can all cause reactions. Personal seldom know they are allergy until they are first bitten. With the disturbance of their habitat such bites are likely to frequent. Such reactions can result in severe distress and even in death if nor treated correctly and immediately. Will all personal be given training in the possibility of such reactions, and the necessary action to take?	Response: Refer to Supplementary EIS Volume 1, sections 17B.6.8, 23.6.1 and 24.6.2
33-27		Concern regarding correctness of Non-Indigenous Culture Technical Rep Page 11 "In 1844 Leichhardt entered the Wandoan district on his way north to the Upper Dawson and the Fitzroy District. Leichhardt's naturalist Gilbert described the country near the Dawson River as being 'a park-like country with grassy hill-slopes and scattered clumps of trees'. Leichhardt's journey inspired further exploration by people like the Archer brothers who played a significant role in the settlement of the Burnett area. Thomas Archer explored the central Burnett in 1847—48 and the family took up the Eidsvold and Coonambula runs. In the earl, 1850s, influenced by Leichhardt' s description Thomas then explored the grazing lands of the Fitzroy and took up Gracemere in 1853."	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Surveying and exploiting the landscape
33-28		While technical correct this gives a very wrong impression of Leichhardt's travels. He named and crossed the Dawson, and travelled to and named the Exhibition Range and passed over them to the Comet region — which he also named, He then travelled north and did not visit the area of the Fitzroy River, which is created by the junction of the Dawson and McKenzie Rivers. (Ref Leichhardt Journal). While I have not made a deep sturdy of the Archer Bros. I believe that they travelled up and down the Dawson, and thus came to Gracemere. It seems that somewhere between Leichhardt and World War 2 the country became heavily timbered. One reason could have been the pear fire through the Brigalow, which caused the Brigalow to sucker.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Surveying and exploiting the landscape
33-29		Page 12 The name is Royds although it is often written as Royd (ref Qld Parliament Lib).	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Establishing pastoral empires
33-30		Page 13 "The Aboriginal population around Juandah Station were caught up in the reprisals when local pastoralists believed that some of the Hornet Bank perpetrators were sheltering at the station. The Aborigines that camped on the lagoon on Juandah Creek were murdered." This story is not widely known and is unlikely to be known as the Royds Brothers had a wide reputation of being lair with all dealing including the aboriginals CHECK REFERENCE- 'Nest of Hornets' by Reid.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Displacing Aboriginal people/frontier conflict
33-31		Page 1 5 "The Agricultural Bank was established in 1902 and began providing funds to selectors. This coupled with the Closer Settlement Act of 1906 with government support for dairying, opened up land. The Prickly Fear Selection Act of 1908 offered land in the hope that the selectors could clear the pear. These actions continued into the 1920s when the pear was finally contained by widespread use of the Cactoblastis lava. The reclaimed land was opened up for selection in the 1930s under perpetual lease." This is an important part of the history of the district, and needs much. more detail.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Encouraging selection, closer settlement
33-32		The 1900's saw an influx of people into the Wandoan district as well as the Downfall Creek German Settlement; then the Prickly Pear arrived, which cased many to leave the land. A number of the 1900 era selectors surrendered their properties during and after World War I as the pear took over. (The pear took a liking to the Brigalow lands) A lot of these blocks were reallocated as Occupation Licenses to whoever would take them. After the cactoblastis destroyed the pear in the late 1920's a lot of this area was resurveyed and put up For selection. There were at least 16 selections taken up in the area covered by MLA. 50229, MLA 50231 and MLA 50230 in properties of 2464 acres to 8972 acres.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Encouraging selection, closer settlement
33-33		Page 15 "In the 1920s, droughts and the lack of an overseas market for dairy products saw the government investing resources into breeding and testing to manage the herds through the hard times. During the depression, dairying was the most widespread agricultural activity." While there were some farmers dairying in the district, on the whole most of the area in the MLA's were cattle properties, turning off export bullocks and cows.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Encouraging selection, closer settlement
33-34		Page 16 "Dairying was the main enterprise but particular technological innovations however led to the decline of dairying in the region. The replacement of the horse by the tractor on large farms in the 1920s, but for most farmers not until the 1950s, had a dramatic effect on productivity and the labour force. The introduction of the milking machine also had a significant effect by reducing the need for workers: common by the 1 950s in dairies, this innovation contributed to the decline of the rural population.: When was dairying the main enterprise? It is unclear from this paragraph.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Wandoan Closer Settlement Scheme (1952)
33-35		In the 1900's when the Juandah Station was broken up, the smaller selectors turned to dairying but the bigger properties were running cattle. There were a few dairy farms after the First World War but the prickly pear made it hard going. Cattle and a few sheep properties were the main enterprises of the district. The Soldier Settlement of the early 1950's saw the big expansion of dairying, but then about 15% of the settlers went into sheep. Then the big tractors moved in to pull the scrub, and rake up the pulled timber, thus clearing the properties, and by the 1960's wheat farming and cattle fattening were the important industries and continued to be so till the droughts of the 1990s when cattle again became the most important enterprise. Population: While true of the State this did not apply to Wandoan, as this was the time of highest population in the district especially the area covered by the MLA. The population of the district boomed with the soldier settlement with young families, land clearing, and stock pickers.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Wandoan Closer Settlement Scheme (1952)
33-36		Page 16 "The town survey was completed in 1902 at a time when the prickly pear had taken hold of the land and the Brigalow had spread." The First allotments of Juandah were sold on 7 June I 913 on the proposed railway line to Taroom .Previous the town was near Juandah dip yard. (P53 Ian Woodside) The town of Juandah was renamed Wandoan 08.12.26	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.2, sub-section Selecting town sites
33-37		Page 17 The rail was important for Wandoan's development, but the town received a boost after World War II when the Soldier Settlement Scheme was put in place. In the 1950s times were prosperous, road and rail transport improved and services and amenities were provided. By 1961 the town had electricity, three churches, a bank, a shire hall, a Post Office, the Taroom hospital out patients department and the Memorial Park. There was a sports ground, a golf club and a community hall. Bowls Club started -1962 See Above re Presoldier Settlement Devolvement Shire Hall- while the Hall was owned and managed by the Shire it was a community hall and not a 'Shire Hall" a name usually associated with administration of a shire.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.2, sub-section Selecting town sites
33-38		Pages 17 and 18 Most of this has little to do with Wandoan coal. What would be interesting would be a list of who owned the relevant leases and the land over time, and plans that have been discussed for this coal, including tests of coal sent to Germany for testing.	Noted
33-39		Page 19 "The local Soldier Settlement roads which were named alphabetically (A, B, C etc Road) were constructed by Thiess Bros. Many of these alphabetically named roads were changed later to avoid confusion when services like fire fighting were required. By 1960 there was about 300 miles of road in the Wandoan district." There were roads before the Soldier Settlement. With the Soldier Settlement the roads west of the Leichhardt Highway were/are alphabetical while those on the east were numerical. As far as I am aware the only road changed was 'A' Road which was changed to Grosmont Road.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.4, sub-section Establishing roads and rail

Submission Number	Submitter	Submission	Response
33-40	[redacted]	Page 19 "interrupted the construction of the extension to Taroom." Was to go on to Theodore .	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.4, sub-section Establishing roads and rail
33-41		Page 19 "The Wandoan branch line was upgraded enabling main line locomotives to operate." When this does not fit in.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.4, sub-section Establishing roads and rail
33-42		Page 1.9 Telephone Exchanges: "In 1950 a telephone exchange was established. The line connected people to an exchange on a party line. Exchanges were operated from Quinty (later called Avonlea), from Arrunga and later at Grosmont." Wandoan exchange was established long before 1940 (actually 1920 ref Rechner P210) and these other exchanges ware long after 1950. What of the others? Culgowie, Hinchley (ref 1974 Phone Book)	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.4, sub-section Providing postal, telegraphic and telephone services
33-43		Page 19/20 "Burials usually took place at Miles." Burials took place in Taroom or Miles. As the hospitals and Churches were in these town it was sensible to bury the dead in these towns, remembering the state of the roads, the lack of refrigeration.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.5, sub-section Providing for the dead
33-44		Page 20 Religions: "The principal denominations in southeastern Queensland were the Anglicans, Presbyterians and Wesylan, Methodists and Catholics." While this statement may well be true, how could a history of the Wandoan district Churches not include the Lutherans, who were and are, an important part of the district, especially of the Downfall area.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.5, sub-section Religion
33-45		Page 20 Schools "Mr. Blackley of Juandah established a school in the main room of the Juandah store in 1911 after gaining approval from the Department of Education. Believe that MRS Blackley was responsible for the establishment other school.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.6, sub-section Establishing schools
33-46		Page20/2 1 "Cockatoo Creek School was located south-east of Wandoan Township. The Government would not fund a school at Cockatoo Creek and so an unofficial one room school was built by three families. The families paid a governess to supervise from 1955 to 1958. In 1958 it became a Provisional State school but due to low enrolments it closed in 1963. The school reopened in 1984 because of the poor state of the roads which did not allow children to be driven to the Wandoan State School. The school operated until 2000." Hope the writer never wants to go to the Cockatoo School. They would never find it. Cockatoo Creek school and the Cockatoo School were two different schools. These schools are NORTH of the MLA some 40 miles and at such a distance have little influence on the MLA Even with good roads it is a long way from Wandoan.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.6, sub-section Establishing schools
33-47		WHAT ABOUT THE GULUGUBA. SCHOOL which is still operating and which is south of the MLA students from this school may well be affected by the mining in the region. If mentioning the old Cockatoo Schools why not other schools that have closed in the district? Were the Guluguba and Cockatoo schools confused?	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.6, sub-section Establishing schools
33-48		Page 21 Item 25: the Wandoan Jackson Road and stock route "The earliest road through the district came from Ipswich via Chinchilla, crossing the range and following Downfall Creek to Juandah station. The road then continues north to Taroom and west across to resumed Juandah lands to the western stations. The Wandoan Jackson Road follows part of that early road which relates to the pastoral era and the resumption period. The road stock route connected Juandah to the Clifford, Bundi and Hinchley properties to the west. This road is within the MLA boundary.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.6, sub-section Item 25
33-49		Early roads would have not have gone through Chinchilla, it was not there until 1878 with the railways arrival. Condamine was the important town, and cross road and declined when the railway did not go through the town. Most of the stock routes in the area are 5 chain wide with associated camping and water reserves. The Wandoan to Taroom route does not Follow the highway until Rochedale, about 15 mile north of Wandoan, For the next 15 mile the highway and stock route are on the same alignment. The early telephone line, also followed this route, and trees with insulators can still be found, Have heard that Xstrata wish to purchase land on Eastern side of this Stock Route. The Stock Route along the Jackson and. Bundi Roads were not quite so well used, but are an option for moving bigger mobs of stock through the area. Check with Cameron Hansen and the Taroom Shire Council as to the numbers of cattle moved through the area during the Drought.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.6, sub-section Item 25
33-50		Page 22 Item 8d: Original sheep fencing "A sheep paddock was located to the rear and west of the house. The original fencing remains." This paddock was for the running of a few sheep for meat.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.6, sub-section Item 8d
33-51		Page 23 Item 8b: Tick reservoir "The tick reservoir is constructed of concrete flooring corrugated iron siding and wood posts. This was used from the 1940s on to control ticks. At that time the tick line was at Wandoan. This feature is outside the MLA boundary." This is a "Johnny come lately" spray dip and would not have been built until 1960's. A cattle dip is made up of a wood or concrete lined trench Filled with tickicide. There are a number of examples in the area, but this is not one. The dip and yards for "Booral Station" were up the creek, about 3 miles from the homestead,	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.6, sub-section Item 8b
33-52		Page 26 Item 27: Cemetery on Leichhardt Highway, 5 km north of Wandoan The cemetery which services the Wandoan area was created in the 1960s. Before that time most people were interred at Miles. This feature is outside the MLA boundary but maybe affected by noise from the Project." Miles OR Taroom	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.6, sub-section Item 27
33-53		2.5.7 Summary Page 26 "Very little changed until the Soldier Settlement scheme of the late 1940s early 1950s when the properties were further divided into dairy farms by the government, roads and dams were constructed and the lots were balloted." VERY LITTLE CHANGED?????? WHAT OF THE PRICKLY PEAR, WHICH TOOK OVER TILL 1.927, THE VIRTUAL OVER NIGH 1 DESTRUCTION OF File PEAR, THE PEAR FIRES AND THE CONSEQUENT 1930'S RESELECTION OF LAND. VERY IMPORTANT NOT ONLY TO THIS DISTRICT BUT A LARGE AREA OF QUEENSLAND. THIS MATTER HAS TO BE DEALT WITH!!	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 2.5.1, sub-section Encouraging selection, closer settlement
33-53		Page 37 Recommendation: WJV should consult with the community, the RSL, the Juandah Historical Society and the Dalby Regional Council regarding the commissioning of a community memorial to the Solider settlers. Why only the Solder Settlers? Many other people were and are involved in the development of the district, both before and after this period.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 4.1.1, and Chapter 20B, section 20B.6.

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33-54	[redacted]	Page 43 undertake if feasible a structural assessment by a structural engineer and/or heritage architect of the meat shed and undertake removal of the meat house possibly to the Juandah historical precinct; • undertake if feasible structural and heritage architectural assessments and recording of the Booral homestead; An assessment is feasible - rewrite to show that the assessment will be made.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, section 4.1.2, and Chapter 20B, section 20B.6.
33-55		No Page No 7 This is Avalon not Booral	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, Attachment 3, item 7.
33-56		No Page No 8b Dip at Booral- spray dip not plunge as most were.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, Attachment 3, item 8b.
33-57		No Page No 11	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, Attachment 3, item 11.
33-58		There is no bore on this dam — why would you have a bore on a dam.	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, Attachment 3, item 11.
33-59		No Page No 17 If the date is 1940 how is it a Solder Settlement mark? Did not start till 1950's	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, Attachment 3, item 17.
33-60		General: How are dates For surveys established??	Response: Refer to Supplementary EIS, Volume 1, TR 20B-1-SV1.5, Attachment 3, item 17.
34-1	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Cover letter, then opening statements of the Joint Submission.	Noted
34-2	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Project timing 1. It is submitted that the Proponent should be required to: - declare now that it still intends to and is able to proceed promptly with the Project if approved - notify the Coordinator General if at any time before approvals are finalised it cannot proceed, and - back that declaration with a substantial bond lodged with the Coordinator General 2. it is submitted that if the Coordinated General approves the EIS, the approval should state a lapse date, in accordance with section 35A of the SDPWO Act 1971, not later than 1 year from the approval MLAs Boundaries incorrect 3. it is submitted that the Mining Registrar has passively contributed to an abuse of the lease application process by the Proponent.	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1, 1.5.1 and 5.1.
34-3	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	4. it is submitted that the misrepresentation of lease boundaries is such a fundamental defect that the Coordinator General should require preparation of a corrected version of the Draft EIS which would then be readvertised for public comment Shape and Area not Justified 5. it is submitted that the draft EIS should be rejected as invalid because, being based on inaccurate and unrealistic mining lease boundaries which could not lawfully be granted, it fails to effectively identify or assess environmental impacts particularly on sensitive receptors.	Response: Refer to Supplementary EIS, section 1.2.1.
34-4	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Loss of GQAL 6. it is submitted that the Proponent should be required to produce a long term economic assessment which recognises impacts of the Project on the current agricultural land use including post-closure of the mine, and assesses whether the sacrifice of GQAL is justified by an overriding need for the project in terms of benefit to the community.	Resposne: Refer to Supplementary EIS Volume 1, section 22.7.
34-5	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Noise, Dust and Blasting 7. It is submitted that the CG should required the draft EIS to be revised based on the actual boundaries of the MLAs and assessing noise, dust and blasting at all sensitive receptors outside those boundaries, then that it be readvertised for public comment. 8. It is submitted that the CG should subject the assessments of noise, dust and blasting impacts to independent expert review before accepting them. 9. It is submitted that if the CG approves the EIS, the approval should be conditional upon the Proponent reaching agreement with every owner of a sensitive receptor outside the MLs at which emission limits are predicted to exceed allowable limits.	Response: Refer to Supplementary EIS, Volume 1, section 1.2.1, 13.6.2, 15.6.2 and 16.6.2.
34-6	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Groundwater 10. it is submitted that an appropriately comprehensive groundwater investigation covering the whole project - including existing private bores within a radius to be justified by the investigation - should be produced and advertised for public comment before the CG gives approval to the EIS. 11. It is submitted that if the CG approves the EIS the approval should accredit a model make-good agreement, list the owners of private bores entitled to an agreement and require the Proponent to enter into that agreement with each listed owner.	Response: Refer to Supplementary EIS Volume 1, section 10.8.
34-7	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Rehabilitation 12. It is submitted that coverage of rehabilitation in the draft EIS is inadequate and a revised version comprehensively assessing rehabilitation (including Xstrata's overall performance at existing comparable sites) and clearly stating objectives and commitments should be advertised for public comment.	Response: Refer to Supplementary EIS Volume 1, sections 25.4.5 to 25.4.7.
34-8	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Final voids 13. it is submitted that the Proponent should be required to further investigate the justification and impact of final voids, this information to be included in a revised version of the draft EIS for public comment.	Response: Refer to Supplementary EIS Volume 1, sections 6.4.4 and 25.4.6.
34-9	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Mine watering 14. It is submitted that it is not just the salinity but the sodium adsorption ratio of coal seam gas water which is a critical factor if environmental harm is to be avoided. Depending on the characteristics of the individual field from which it is sourced, such water may required addition of chemicals or alternatively blending with other water to reduced the SAR to acceptable levels, as well as RO treatment.	Response: Refer to Supplementary EIS, Volume 1, sections 9.6.3, 11.4.4, 11.5.4 and 11.6.5.
34-10	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Road closures 15. it is submitted that if the CG approves the EIS, the approval be conditional upon the Proponent a high level bridge wide enough for farm machinery as described below.	Response: Refer to Supplementary EIS, section 6.6.2.
34-10	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Project Timing The so-called Global Financial Crisis is biting ever deeper into mining activity and especially into new projects. Mr. Thatcher for the Proponent told affected landowners on 20th January last that thermal coal sales have maintained "robust tonnages" at satisfactory prices and the target dates for approvals, financial close and the Proponent's go-decision remain unchanged. However, the economic crisis grows worse by the day and if it is not the case already it is reasonable to expect that the market for thermal coal will be significantly affected. The Proponent's ability to find viable markets for an extra 22 million tonnes per year of thermal coal from the Project has to be in doubt - and the Proponent's ability to go ahead promptly likewise in doubt.	Noted

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34-10	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	These are special and unusual circumstances. The Proponent naturally wants to exercise its right to secure the necessary approvals for the Project (particularly the grant, or recommendation for grant, of mining leases and grant of environmental authority). But having secured them it can, if it wishes, treat those approvals as holding tenure and await favourable conditions. For example, Xstrata controls the Togara North thermal coal project over about 7,000 hectares of good privately-owned grazing and cropping land in the Bowen Basin. Despite grant of the mining lease being available these last 10 years since February 1999, that project remains in a state of suspended animation. This amounts to landbanking. In these extraordinarily uncertain times those affected by this Project need to be assured, to the maximum extent that such an assurance can be given, that it is really going ahead. The burden of the complex EIS and lease application processes upon affected landowners and other interested persons is substantial, especially so because of its size.	Response: Refer to Supplementary EIS, section 1.5.1.
34-11	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Many people, most of all the 40 or so directly affected landowners, are undergoing massive disruption to their lives and businesses. With such obvious and extreme economic uncertainty prevailing, they deserve to be assured that the Project which is causing them this pain can and will proceed and will not be just another landbanking exercise. 1. It is submitted that the Proponent should be required to: a. declare now that it still intends to and is able to proceed promptly with the Project if approved b. notify the Coordinator General if at any time before approvals are finalised it cannot proceed, and c. back that declaration with a substantial bond lodged with the Coordinator General 2. Further, it is submitted that if the Coordinator General approves the E1S, the approval should state a lapse date, in accordance with section 35A of the State Development and Public Works Organisation Act 1971, not later than one year from the approval.	Response: Refer to Supplementary EIS, section 1.5.1.
34-11	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	The Mining Lease Applications Boundaries Incorrect The boundaries and areas of the mining lease applications shown in the Draft EIS are incorrect. They are the original mining lease application boundaries and areas as first lodged by the Proponent with Department of Mines and Energy on 24th May 2007. The document makes no mention of it, but the original lease boundaries on which the Draft EIS is based are now substantially incorrect because, after lodging its applications, Xstrata notified 14 of the property owners within those boundaries, verbally and in writing, that their land had been excluded. They were told in a letter dated 14th February 2008 that: your land is no longer needed to be included in the land covered by our mining leases. Those letters said Xstrata would advise the Department of Mines and Energy of the relinquishment at an appropriate time, when a single relinquishment for the Project would be made and that: may not occur until mid-2008.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
34-11	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Although a relinquishment had still not occurred, on 20th January 2009 Mr. Thatcher on behalf of the Proponent told a meeting of affected landowners that — a. there are small changes but the majority of the lease boundaries are the same as shown in the Draft EIS, and b. however, the whole of the boundary in the south-east corner will change to accommodate the rail line and to include an additional pit and c. there should be no doubt as to who is in and who is out of the lease area — the owners know, and d. the boundaries must be finalised for inclusion in the Supplementary EIS.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
34-12	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Much earlier, Mr. Thatcher had confirmed the definite removal of 14 properties from the mining leases. He did so at public meetings at Wandoan, for example on 20th November 2007. At that meeting he said on the basis of drilling results the inclusion of other properties within the original boundaries were also being reconsidered, and that Xstrata would finalise the adjusted boundaries. At a subsequent meeting on 1 April 2008 Mr. Thatcher spoke again of the relinquishment. He said 40 owners were still affected. He gave the revised area of lease applications as 25,000 hectares (a reduction of 7.000 hectares).	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
34-11	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Even though the decision to exclude certain properties was made some 15 months ago, the excluded properties have not been publicly identified and no plan of the revised lease boundaries nor updated list of affected properties has been published, in the Draft EIS or otherwise. As explained below, this defect renders the Draft EIS ineffective, inaccurate and misleading because it fails to discharge one of its most important functions, that is the assessment of environmental impacts on the Project's immediate neighbours just outside the revised (but still undisclosed) lease boundaries. Mr. Alan Postle, a signatory to this submission, is one of the excluded owners. His separate individual submission explains that the Draft EIS leaves he and his family in no-man's-land. Their residence does not exist as far as impact assessment in the Draft EIS is concerned and it is not included in any of the impact assessments regarding sensitive receptors. All the excluded owners are in the same position.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
34-11	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	By not promptly issuing the certificates of application for the mining leases after they were lodged on 24th May 2007, the Mining Registrar has compounded the problem and failed to promptly carry out the functions of the office. The certificate of application, besides marking formal acceptance of the lease application, has the important function of notifying owners of the affected land and formally confirming to them the details of the lease application, including the boundaries. While no time limit is specified, under section 252 of the MR Act the Registrar is required to formally accept the lease application by issuing the certificate of application. That certificate is to be issued upon the Registrar being satisfied as to the applicant's eligibility, and being satisfied as to the applicant's compliance with the MR Act in respect of the application. It is 20 months since the lease applications were lodged. The Registrar is authorised under section 250 of the MR Act to instruct the lease applicant to provide such further information and particulars as the Registrar requires — and if not provided to reject the application. Unless such a process is underway, the Registrar has an obligation to either accept or reject the application with due dispatch.	Noted
34-11	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Meanwhile, the mining lease applications which effectively blotted the title of all these properties from 24th May 2007 have not even been formally accepted. Fourteen of the properties are apparently not even in the mining lease any more, but their titles have been blotted for 20 months anyway. The lease applications may be marked out and may be shown as applications on the Department's database, but they are not yet accepted. The Proponent has stated (at its meeting with affected landholders on 20th January 2009) that there will be a Supplementary EIS, ie. containing its responses to the submissions — and the correct boundaries will be revealed in that document. However in the circumstances, that will not overcome the fact that the Draft EIS upon which the submissions have to be made is fundamentally inaccurate.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
34-11	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	What is required is that while still at the public comment stage there is an accurate Draft EIS fully disclosing the impacts at those excluded properties, particularly of noise, dust and blasting upon sensitive receptors as well as impacts on existing bores and surface water including farm dams. 3. It is submitted that the Mining Registrar has passively contributed to an abuse of the lease application process by the Proponent. 4. It is submitted that the misrepresentation of lease boundaries is such a fundamental defect that the Coordinator General should require preparation of a corrected version of the Draft EIS which would then be re-advertised for public comment.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
34-12	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Shape and Area not Justified The Draft EIS states: The MLA's comprise approximately 32,000 hectares. Approximately 11,000 hectares of the MLA's will be used for mining operations. That is, under the original boundaries about 21,000 hectares or 66% of the total area applied for is not required for the actual mining or purposes necessary to support the mining. Assuming the total area has been reduced to 25,000 hectares as stated by the Proponent and mentioned above, then 14,000 hectares or 56% of the total area is not required for actual mining. From the indicative mine layout shown in Figure 6-3-V1.3, we believe that after allowing for a reasonable margin around the active areas there is a minimum of about 10,000 hectares within the original lease boundaries where the criteria for grant of a mining lease are not satisfied.	Noted

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34-12	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Xstrata, as the operator, has publicly confirmed that its grazing subsidiary Colinta Holdings will run cattle on the land within the mining leases that is not required for mining at any given time (please see clipping from Queensland Country Life 22t January 2009 Attachment “A” hereto). There is no legal barrier (other than legislation such as foreign ownership rules and provisions of the Land Act affecting the tenures which can be held by a corporation) to stop the Proponent purchasing whatever private land it wishes if agreement can be reached with its owners. But regardless of who owns land, under section 234 of the MR Act the purposes for which a mining lease may be granted over it are limited. A lease may only be granted for mining the specified mineral and all purposes necessary to effectually carry on that mining — or alternatively such other purposes as specified in the lease other than mining, that are associated with, arising from or promoting the mining.	Response: Refer to Supplementary EIS Volume 1, section 6.10.
34-12	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Those specific purposes for which a mining lease application may be made are further defined in section 245 of the MR Act where: • in subsection (1)(f), the applicant must identify the boundaries of any surface area within the proposed lease and specify the purpose for which that area is to be used (emphasis added) and • in subsection (1)(i), the applicant must give reasons justifying grant of the lease in the size and shape described (emphasis added) and • in subsection (1)(o)(iii)(A), the applicant must outline a mining program and method of mining consistent with the provisions of the Act or if a mining program is not proposed, outlining the use proposed for the land (emphasis added) or • in subsection (1)(o)(iii)(B), the applicant must state its proposals for infrastructure necessary to enable the mining program to proceed.	Response: Refer to Supplementary EIS, sections 1.2.1, 6.3, 6.4, 6.5 and 6.6.
34-12	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	The Proponent itself states: The remainder will act as a buffer between operations and sensitive receptors Such a buffer is not a purpose for which a mining lease may be granted under the MR Act - neither is the grazing of cattle by Xstrata’s pastoral subsidiary. In respect of land not actually required for mining and purposes incidental to mining, where the impacts of the proposed mining such as noise, dust and blasting would exceed authorised limits at sensitive receptors, or for example where existing groundwater supplies could be damaged, the Proponent must address those impacts by way of commercial agreement with the relevant owners. The MR Act does not allow the Proponent to force the owners out by extending the mining lease. Such an agreement can be for the Proponent to purchase the land or alternatively to obtain the owner’s waiver, in terms acceptable to the Environmental Protection Agency, consenting to environmental impacts in excess of authorised limits. Typically the Proponent would provide noise and dust attenuation measures such as air-conditioning, double glazing, insulation etc., also pay compensation and undertake to make good any damage to bores.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
34-12	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	We accept that in practice it is not necessary for a Draft EIS to assess impacts at residences etc. on land over which it can reasonably be said a mining lease application is warranted — provided the location of sensitive receptors is disclosed and the assessments are stated to be conditional upon the Proponent acquiring them or gaining the owners’ consent to include them in a mining lease. However, credibility of the impact assessments in this case is eroded by use of unrealistic lease boundaries which are firstly not the current boundaries and secondly are an extravagant ambit claim.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
34-12	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	This land claim is based on the Proponent’s mistaken belief that it is entitled to design its mining leases to take in general buffer areas which are then available as high-quality grazing land for Xstrata’s pastoral subsidiary Colinta holdings. This strategy, while misguided is Consistent with propaganda disseminated to affected landowners by Xstrata, on behalf of the Proponent particularly in the early stages of the Project. Xstrata told affected owners that any land which it could not acquire by agreement would be compulsorily acquired. This assertion is false because the MR Act under which the mining lease application process is conducted makes no provision for compulsory acquisition of land.	Response: Refer to Supplementary EIS Volume 1, section 6.10
34-12	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	The Draft EIS states: The WJV will seek to purchase or reach a compensation agreement with all landowners within the MM areas prior to commencing construction and operations. Note that this statement: a. does not repeat Xstrata’s earlier claim that it can compulsorily acquire land; and b. does not explain that in the absence of agreement compensation for grant of a mining lease will be determined in the Land Court, with the owner retaining title to the land.	Response: Refer to Supplementary EIS Volume 1, section 6.10
34-13	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	The Proponent has misconstrued the law because: a. agreement upon, or determination of compensation is a prerequisite for grant of a mining lease (which comes before construction and operations); and regardless of how compensation is settled, without the consent of a property’s owner given before close of objections to the lease application, a mining lease cannot be granted over “restricted land”; and c. restricted land under the MR Act is the site of a permanent building, principal stockyard bore or artesian well, dam or another artificial water storage, or cemetery or burial place — ie. in effect every sensitive receptor is located on restricted land; and d. the Proponent should have identified both restricted land and sensitive receptors and made it clear that its assessment of environmental impacts is only valid if it succeeds in acquiring all restricted land or else receiving the consent of each owner before close of objections to the mining lease applications 5. It is submitted that the Draft EIS should be rejected as invalid because, being based on inaccurate and unrealistic mining lease boundaries which could not lawfully be granted, it fails to effectively identify or assess environmental impact particularly on sensitive receptors.	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1, 1.5.1 and 6.10.
34-14	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Loss of Good Quality Agricultural Land The Draft EIS shows (in Figure 9-1-V3) that the entire 32,000 hectares within the original boundaries of the three proposed mining leases is classified as Good Quality Agricultural Land (“GOAL”). Yet nowhere does it assess the short-term or long-term economic impacts or other impacts of the loss of GOAL. The report “Wandoan Coal Project — Economic Assessment” (VI 122) does not refer to, or quantify, the adverse impact on grazing and cropping, nor the contribution which those existing businesses make to the economy. It emphasises benefits of the proposed mine for employment and by way of service industry and infrastructure stimulus in the local area and the State for the period between start of construction and the end of mining, but says nothing about the negative effects of the long-term loss of agricultural productivity. It does not acknowledge that current agricultural use of the land and the economic and social benefits flowing from it are sustainable in perpetuity, nor that by comparison, the proposed mining will generate benefits for a few years only.	Response: Refer to Supplementary EIS Volume 1, section 22.5.5.
34-13	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	The Proponent’s economic and social assessment is silent on how costs and benefits in the local area and the State will stack up after the mine closes. The Draft EIS does not address State Planning Policy 1/92: Development and the Conservation of Agricultural Land. It does not demonstrate: that there is an overriding need in terms of benefit to the community from the Project. 6. It is submitted that the Proponent should be required to produce a long-term economic assessment which recognises impacts of the Project on the current agricultural land use including post-closure of the mine, and assesses whether the sacrifice of Good Quality Agricultural Land is justified by an overriding need for the Project in terms of benefit to the community.	Response: Refer to Supplementary EIS Volume 1, section 22.5.
34-14	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Noise, Dust and Blasting Because (as stated above) it is based on inaccurate mining lease boundaries, the assessments of noise, dust and blasting impacts are incomplete in that they do not identify sensitive receptors on properties, some of which are now outside those purported lease boundaries. Furthermore (as stated above) even the Proponent’s revised mining lease areas still contain substantial areas of land which we submit is not required for mining, therefore cannot be lawfully included in these mining leases. Other unrecognised sensitive receptors are located on that land which should not be included in a mining lease and the noise, dust and blasting impacts on them will also need to be assessed. It is at the sensitive receptors that the noise, dust and blasting emissions will be subject to limits specified in the environmental authority for the Project.	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1, 13.3.4, 13.5.3, 13.6.2, 15.3.2, 15.5.3, 15.6.2, 16.3.2, 16.5.2 and 16.6.2.

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34-14	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	We, the signatories to this submission, do not have the resources nor the time nor the access to essential data to engage our own experts to assess these impacts. However, there is reliable anecdotal evidence that the assessments on behalf of proponents of other comparable projects in the past have significantly underestimated the levels of emissions. We do not suggest any of the reports for this Project have been deliberately shaped to understate emissions, but we do say that the modelling process can produce inaccurate results. We observe that the Proponent's reports do not offer any validation of their modelling. They could quite easily do this by comparing the emissions forecasts for other comparable projects with the actual emissions once those projects were underway, assuming there are some which have proved accurate. Experience shows that the single most intrusive source of noise from mining is reversing alarms on vehicles and machines. The Proponent should be required to use any lawful means of substituting a non- intrusive alternative reversing alarm wherever required.	Response: Refer to EIS Volume 1, section 15.6.2, and Supplementary EIS Volume 1, sections 13.2.2, 13.2.4, 13.6.2, 15.6.2 and 16.6.2.
34-15	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Accurate estimation of emissions is vital because there is strong anecdotal evidence to show that where excessive emissions do occur at mining and related projects, property owners find that the Environmental Protection Agency is ineffective as the regulator. The EPA's response to complaints is invariably disappointing. 7. It is submitted that the Coordinator General should require the Draft EIS to be revised based on the actual boundaries of the mining lease applications and assessing noise, dust and blasting at all sensitive receptors outside those boundaries, then that it be readvertised for public comment 8. It is submitted that the Coordinator General should subject the assessments of noise, dust and blasting impacts to independent expert review before accepting them. 9. It is submitted that if the Coordinator General approves the EIS the approval should be conditional upon the Proponent reaching agreement with every owner of a sensitive receptor outside the mining leases at which emission limits are predicted to exceed allowable limits.	Point 7 response: Refer to Supplementary EIS Volume 1, section 1.2.1 Point 8 response: Noted Point 9 response: Refer to EIS Volume 1, and Supplementary EIS sections 13.6.2, 15.6.2, 16.6.2
34-15	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Groundwater In this district nothing is more important to property owners than water supply and its security and quality. Private bores and the community bores are critically important, especially as long and recurring droughts such as we have experienced in recent years make it very difficult for anyone who is dependent upon surface water. The Proponent concedes in the Draft EIS (see Groundwater Technical Report V1-T10, Executive Summary) that its groundwater investigations have been limited, especially that they have been mainly confined to the eastern-most area in MLA 50230 and to some extent MLA 50231. The Proponent concedes that existing bores will be affected and proposes an ongoing study of the groundwater.	Noted
34-15	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	The fact that the Proponent has not conducted any groundwater modelling (but says that needs to be done) reinforces our view that coverage of groundwater impacts in the Draft EIS is inadequate and superficial. As to existing bores, only the private sub-artesian bores (70 of them not counting the 6 community bores, according to the Draft EIS) within 2km of the purported lease boundaries were included in the census. The Proponent admits even now it has a limited knowledge of the groundwater resource. It had even less knowledge at the time the 2km limit was set and we believe the size of the investigation zone for private bores should be reviewed. As to whether the aquifers sourced by private bores are at risk because they are connected to proposed mining pits, it seems surprising that given its extensive investigation of the coal seams and the geology of the area, the Proponent does not mention whether there are groundwater boundaries such as impermeable faults. Boundaries are one of the factors governing interconnection and the risk of draw down.	Noted
34-15	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	The Draft EIS leaves owners of existing private bores in very uncertain territory because — a. if the mining leases are granted, with such inadequate knowledge of the impact on existing bores the risk to the owners' bores is unquantified; and b. despite the Proponent's proposed ongoing investigation the owners would have no protection, no means of proving the mine at fault if their bore is damaged, and no power to force the mine to make good the damage or compensate; and c. while damage to existing bores is an environmental matter (ie. it will not be the subject of any condition of the mining lease), the EPA does not regard water supply as an environmental value and will not include any condition in the environmental authority protecting the owner, and d. the owners are not protected under the Water Act as it does not apply to grant of a mining lease — even if make-good conditions are imposed on water licenses for dewatering, they will have only nominal status and be unenforceable due to lack of provisions for baseline testing and ongoing monitoring of private bores, and specific provisions governing make-good action or compensation; and e. the only way to protect the rights of owners is for each to have a "make-good" agreement with the miner, good examples of which already exist and could be used as a model.	Response: Refer to Supplementary EIS Volume 1, section 10.8.
34-16	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	The make-good agreement referred to provides for — i) pre-mining baseline study of the bore, using a sophisticated measure of bore capacity ii) regular monitoring of specified parameters to identify any change in water yield or quality iii) a basis for investigating and identifying the cause of adverse change iv) in the event the damage is mine-related, a basis for the miner to make good the damage, or if that is not possible to compensate.	Response: Refer to Supplementary EIS Volume 1, section 10.8.
34-16	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	10. It is submitted that an appropriately comprehensive groundwater investigation covering the whole Project - including existing private bores within a radius to be justified by the investigation — should be produced and advertised for public comment before the Coordinator General gives approval to the EIS. 11. It is submitted that if the Coordinator General approves the EIS the approval should accredit a model make-good agreement, list the owners of private bores entitled to an agreement and require the Proponent to enter into that agreement with each listed owner. □	Response: Refer to Supplementary EIS Volume 1, section 10.8.
34-16	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Rehabilitation The Executive Summary of the Draft EIS states (on page 14, section 9.3.1) that flatter sections of overburden stockpiles and tailings dam sites: will, where practicable be returned to Class 3 cropping land or Class 2 grazing land. However, Chapter 25 "Rehabilitation and Decommissioning" which gives the detail of rehabilitation does not mention nor repeat that commitment. Furthermore the Draft EIS does not include any information demonstrating that comparable land with comparable soils in comparable climatic conditions elsewhere has been rehabilitated to those standards or that the Proponent is capable of rehabilitating this particular land to Class 3 cropping or Class 2 grazing land. Xstrata has numerous mines in Queensland — and having its own cattle is well placed to disclose actual grazing capability of its rehabilitated land - but does not see fit to show its actual rehabilitation performance and demonstrate what it can realistically achieve.	Response: Refer to Supplementary EIS, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8 and 25.4.7.
34-16	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Representatives of the Proponent showed some audiovisual material on rehabilitation to a meeting of affected landholders on 20th January last. This featured rehabilitation at a particular site in the Hunter Valley and at an Xstrata site at Collinsville, Queensland where it was said that acceptable carrying capacity has been achieved. Early stage rehabilitation at the Wandoan bulk sampling pit was also shown.	Response: Refer to Supplementary EIS Volume 1, section 25.4.7.
34-16	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	However, without access to comprehensive printed material and independent evaluation, those examples cannot be evaluated. We do not know anything about the methods used at those sites, or the costs. We have no way of knowing whether these sites were given star treatment for display purposes only, or whether they were rehabilitated by standard methods that would be feasible and affordable over this whole Project. We do not know if results there can be repeated in local soil and climatic conditions. We do not know whether the claimed grazing capability at those sites is sustainable, nor whether ongoing fertiliser applications and other treatments are required to maintain capability. We certainly have not been shown any examples of comparable land being rehabilitated to cropping capability.	Response: Refer to Supplementary EIS Volume 1, section 25.4.7.
34-17	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	12. It is submitted that coverage of rehabilitation in the Draft EIS is inadequate and a revised version comprehensively assessing rehabilitation (including Xstrata's overall performance at existing comparable sites) and clearly stating objectives and commitments should be advertised for public comment.	Response: Refer to Supplementary EIS Volume 1, section 25.4.7.

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34-17	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Final Voids The mining plan would leave a final void in each of the pits numbering about fifteen. Final voids are environmentally undesirable. They are permanently barren, physically hazardous, and often there is a threat to groundwater resources from contaminated water infiltrating surrounding aquifers. The Draft EIS does not show that there has been any investigation of the feasibility of reducing the number of final voids by transferring overburden from nearby pits so as to achieve complete backfilling. No water balance studies are shown, so we do not know to what extent each of the voids would accumulate water, nor the quality of the water nor the extent to which void water would infiltrate groundwater aquifers.	Response: Refer to Supplementary EIS Volume 1, sections 6.4.4, 10.8, 11.6.2 and 25.4.6.
34-18	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	13. It is submitted that the Proponent should be required to further investigate the justification for and impact of final voids, this information to be included in a revised version of the Draft EIS for public comment.	Response: Refer to Supplementary EIS Volume 1, sections 6.4.4, 10.8, 11.2.5, 11.6.2 and 25.4.6.
34-18	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Mine Watering The Proponent's water supply options for its mine usage include coal seam gas water. To the extent that it would be applied to the soil for such purposes as road watering and dust control, the sodicity of coal seam gas water has the potential to destroy soil structure and cause permanent loss of capability. This problem has been drawn to the Proponent's attention on occasions over recent months, but it is still not recognised in the Draft EIS. We are reliably informed — a. that some coal seam gas water, especially that which would be supplied from Columboola to the south, has extreme sodium adsorption ratio typically as high as 600 and above; and b. that after reverse osmosis treatment of that water - even if salinity is reduced to remnant levels of around 50ppm- the sodium adsorption ratio will still be excessive.	Response: Refer to Supplementary EIS Volume 1, sections 9.6.3, 11.4.4 and 11.6.5.
34-18	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	14. It is submitted therefore that it is not just the salinity but the sodium adsorption ratio of coal seam gas water which is a critical factor if environmental harm is to be avoided. Depending on the characteristics of the individual field from which it is sourced, such water may require addition of chemicals or alternatively blending with other water to reduce the sodium adsorption ratio to acceptable levels, as well as reverse osmosis treatment.	Response: Refer to Supplementary EIS Volume 1, sections 9.6.3, 11.4.4 and 11.6.2.
34-19	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	Road Closures The Proponent intends to close that part of Grosmont Road south of the Booral Road intersection — please see Figure 27A-1-V1.3 - but the Draft EIS makes no mention of the disruption that closure would cause. Numerous residents rely on that particular road as their only road access during floods. Their alternative outlets to the Highway and town have low-level bridges over Juandah Creek which can be submerged by as much as eight metres of water for periods of five to six days. Also the Project would eliminate the only viable wet weather east-west route for wide farm machinery, especially combine harvesters, over a concrete causeway crossing Wooleebee Creek. The only realistic solution is for the Proponent to provide a high-level bridge over Juandah Creek on the Booral Road, the crossing to be wide enough for farm machinery especially combine harvesters.	Response: Refer to Supplementary EIS Volume 1, sections 6.6.2, 11.4.4, 11.5.4 and 11.6.5.
34-19	G.T. Houen Landholder Services Pty Ltd (on behalf of 10 affected landholders)	15. It is submitted that if the Coordinator General approves the EIS, the approval be conditional upon the Proponent providing a high level bridge as described above.	Response: Refer to Supplementary EIS Volume 1, section 6.6.2.
35-1	DNRW (now Department of Enviroment and Resource Management)	Water Act 2000 (Qld) INCLUDE: section 237 (under approval source); INCLUDE: a water permit for the taking of water (watercourse/groundwater) for an activity with a reasonably foreseeable conclusion date. (under relevant aspect of Project) The EIS has identified that a water permit may be applied for to take water on a temporary basis for construction of the project. Add new approval source: Section 3.2.1 of the Integrated Planning Act 1997 (Development Permit for operational works for the taking of or interfering with water). Decision maker: 'Chief Executive of Department of Natural Resources and Water'; Relevant Aspect of the project; 'To allow for the construction/installation of works associated with the take or interference with the flow of water'. The EIS has identified that operational works for the taking of or interfering with water are required as part of the project e.g. watercourse diversions.	Response: Refer to Supplementary EIS Volume 1, Chapter 3 Project Approvals, section 3.3.3 and 3.3.13.
35-2	DNRW (now Department of Enviroment and Resource Management)	The EIS identifies that water for construction may be obtained from existing surface water dams. See requirements/comments for Volume 1 section 11.4.3 Construction Raw Water.	Noted
35-3	DNRW (now Department of Enviroment and Resource Management)	Infrastructure outside the MLA areas – Glebe Weir Option The proposed pump station on the bank of Cockatoo Creek will require a development permit for the installation of operational works for the taking of water.	Response: Refer to Supplementary EIS Volume 4, section 3.1
35-4	DNRW (now Department of Enviroment and Resource Management)	Water Supply and Management – MLA Areas Water Management Please refer to requirements/comments for Volume 1 Section 11.5.3 in relation to impacts of flow reduction on stock and domestic supplies and entitlement holders.	Noted
35-5	DNRW (now Department of Enviroment and Resource Management)	Rehabilitation and Decommissioning Please refer to comments for Volume 1 Section 25.4.6 on use of final voids as wetlands.	Noted
35-6	DNRW (now Department of Enviroment and Resource Management)	Rejects and Tailings The EIS states that 'coarse rejects are planned to be progressively dumped on the Austin vale Pit footprint to a maximum height of around 25m above natural surface'.	Response: Refer to Supplementary EIS Volume 1, Chapter 6 Project Operations, section 6.4.4.
35-7	DNRW (now Department of Enviroment and Resource Management)	Details should be provided as to why these rejects could not be used to reduce the number and/or size of the final voids.	Response: Refer to Supplementary EIS Volume 1, Chapter 6 Project Operations, section 6.4.4.
35-8	DNRW (now Department of Enviroment and Resource Management)	Green Waste Care should be taken with stockpiling of vegetation to ensure it does not concentrate or divert overland flow that has the potential to increase erosion.	Noted
35-9	NRW	Roads The Department advises that once the plans for the Wandoan Coal Project have been finalised the proponent should contact NRW to discuss what applications will be required under the Land Act 1994 for temporary and permanent road closures.	Response: Refer to Supplementary EIS, Volume 1, section 6.6.2
35-10	DNRW (now Department of Enviroment and Resource Management)	Electricity Supply The EIS details that for Options 1 and 2 require significant upgrades to the existing network systems and will be subject to separate impact assessment and approval processes. However, Option 4 also proposes a new 132 kV electricity transmission line. No details have been provided regarding this transmission line and it is not clear whether this transmission line will also be subject to a separate impact assessment and approval processes or approval is sought within the current EIS process. With regards to the proposed power station no details are provided on the water quality requirements. If coal seam gas water is the chosen water source, will this require treatment on-site? How will waste (wastewater and ash) be disposed of?	Response: Refer to the EIS Volume 1, section 2.13.1 and 6.6.9, and the Supplementary EIS Volume 1, Chapter 6 Project Operations, section 6.6.9.
35-11	DNRW (now Department of Enviroment and Resource Management)	IDAS Development Applications The proponent should detail all future Material Change of Use and Reconfiguration of a Lot applications covered under this EIS and an assessment should be made of their impact on native vegetation.	Response: Refer to Supplementary EIS Volumes 1 and 2, Chapter 17A, sections 17A.3 and 17A.4.
35-12	DNRW (now Department of Enviroment and Resource Management)	Cultural Heritage The cultural heritage management plan for the project should include all ancillary project activities such as the accommodation facilities, new municipal waste facility, airstrip and water and gas supply corridor.	Response: Refer to Supplementary EIS, Volume 1, sections 20A.4, 20A.5 and 20B.6, and Volume 2, sections 20A.5 and 20B.6.

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35-13	NRW	Land Act 1994 Reference should be made to the leasehold land (for example pastoral holdings and grazing homestead perpetual leases) affected by the project (mine, pipelines etc), and roads and the reserves in the affected area which are dealt with under the Land Act 1994. The Department advises that the use of State Land must be consistent with its designated purpose. Section 99 on the Land Act 1994 contains provisions for road closures of all roads not just state controlled roads. The Department advises that once the plans for the Wandoan Coal Project have been finalised the proponent should contact NRW to discuss what applications will be required under the Land Act 1994. These may include but are not limited to permanent road closure and temporary road closure applications, permits to occupy, conversion of tenure and applications to purchase state lands. Sufficient time should be allowed for the application and approval process to occur before areas are affected by the Project's activities.	Response: Refer to the EIS Volume 1, section 8.3.1, Appendix 8-2-V1.4, and Volume 2, section 8.3.1, and Appendix 8-2-V2.4. Also refer to Supplementary EIS, Volume 1, section 6.6.2, and Volume 2 section 8.3.1.
35-14	DNRW (now Department of Enviroment and Resource Management)	No reference is made in Volumes 2 or 3 to the Forestry Act 1959 under the State Legislation approval requirements. The above comment on quarry materials is likely to also apply to the proposed water supply pipelines. Volumes 2 and 3 should also cover the possible need for approval to infer with forest products as their alignments have not yet been finalised and run in close proximity to leasehold lands, reserves and state forests that may contain commercial timbers. In the Glebe Weir water supply option (Volume 4) the Forestry Act 1959 is only listed in the as of potential relevance to some aspects of the Glebe Option Project section. The Forestry Act 1959 is of relevance and should be listed in the relevant State legislation section and the approvals required should be outlined.	Noted
35-14	DNRW (now Department of Enviroment and Resource Management)	Forestry Act 1959 Volume 1, Paragraph 2, Page 3-16 – Please note that under the Forestry Act 1959 NRW manages native forest timber production and the sale of quarry materials from State forests and timber reserves and also from all other State-controlled lands across Queensland. This section does not identify that there may be a need to purchase State owned quarry materials from reserves, roads and other State controlled lands. The proponent should note that forest products e.g. commercial timber such as cypress pine could be interfered with on leasehold land due to the mining operation and associated projects. Please refer to condition 8 in Attachment 3.	Noted
35-15	DNRW (now Department of Enviroment and Resource Management)	Good Quality Agricultural Land (GQAL) The first sentence should read – Development and the Conservation of Good Quality Agricultural Land – SPP 1/92 recognises that good quality agricultural land has a special importance and should not be built on unless there is an overriding need for the development in terms of public benefit and no other site is suitable for the particular purpose. Guidelines supporting SPP1/92 aim to minimise the potential for land use conflicts between agricultural and non-agricultural land uses. The Department advises that while SPP 1/92 does protect good quality agricultural land (GQAL) from subdivision into uneconomic units its aim is to both recognise the importance of GQAL and protect it from inappropriate development not just subdivision. Reference is made to Vol 1 Paragraphs 3 and 4 of Section 3.3.22; Vol 2 & 3, 3.3.16:	Response: Refer to Supplementary EIS Volume 1, section 3.3.22, and Volume 2, section 3.3.16.
35-15	DNRW (now Department of Enviroment and Resource Management)	While the GQAL likely to be impacted upon by the Mining Development and associated projects covered in the EIS may represent a minor proportion of the overall GQAL in the Region the impact on GQAL is likely to have a significant impact on the local community and on the sub-catchment area. The EIS at this point has not provided evidence that it does not compromise the overall intent of SPP 1/92 as there no reference in the SPP to broadscale retention of GQAL as a means of compliance with the SPP.	Response: Refer to Supplementary EIS, Volume 1, section 3.3.22 and Volume 2, section 3.3.16.
35-16	DNRW (now Department of Enviroment and Resource Management)	Gas Supply Pipeline Corridor The EIS states that clearing for the installation of the gas supply pipeline will be to approximately 20 metre wide for construction access. Please justify the need for a minimum 20 metre corridor width for construction and operational activities, particularly as the corridor predominately makes use of the existing road network. It would seem that much of the construction activity and most of the operational activities could be accommodated on the existing road formation. The Department requires information on the need for further clearing and stripping of land beyond that for the 3-5 metre for the pipeline trenching and laydown areas. A reduced corridor width will lessen potential impacts on the land and vegetation resources. Also please outline measures that will ensure construction activities such as vegetation windrows, spoil heaps and other operations do not impede or divert overland runoff flows, especially on floodplain areas traversed by the pipeline corridor.	Response: Refer to Supplementary EIS Volume 1, Chapter 5 Project Construction, section 5.3.3.
35-17	NRW	Public roads and road relocations The Department advises that once the plans for the Wandoan Coal Project have been finalised the proponent should contact NRW to discuss what applications will be required under the Land Act 1994 for temporary and permanent road closures. This may include but is not limited to decisions on whether permanent or temporary road closures are the most appropriate actions to be taken. NRW should also be consulted with regards to the stock route associated with the Wandoan-Jackson road being reestablished with the road relocation. See comments below on stock routes in Chapter 8, page 8-9.	Response: Refer to Supplementary EIS, Volume 1, sections 6.6.2 and 8.6.6 and Appendix 3-1-SV1.4
35-18	DNRW (now Department of Enviroment and Resource Management)	Stock Route Management In relation to Stock Route Management the following information is provided: • where there are to be disruptions to the stock route network, NRW requires realignment/replacement of corridors of similar width and suitable country type to allow for the uninterrupted flow of travelling stock • options for diverting stock that are considered unsafe to travelling stock and drovers, as well as the travelling public will not be supported • the stock route network comprises declared stock routes, reserves for travelling stock and other relevant land • the relevant NRW Senior Lands Officer (Stock Routes) and local government stock route officer must be consulted from the early planning stages	Response: Refer to Supplementary EIS, Chapter 8 Land Use, sections 3.3.14 and 8.6.6.
35-18	DNRW (now Department of Enviroment and Resource Management)	• current usage classifications of stock routes have no bearing on whether consideration needs to be given to their replacement/realignment – future usage of stock routes by travelling stock is uncertain, but is likely to be influenced by peak oil and rising fuel costs and the effects of climate change • the Minister for Natural Resources and Water has publicly stated that the entire stock route network is to be retained • provision of adequate replacement watering facilities and other infrastructure may be necessary, where existing infrastructure will become redundant. Volume 1 - please note that while figure 8-5-V1.3 and Figure 6-32-V1-3 show where stock routes will be affected it is unclear whether/where preliminary realignment of the stock route network will be required.	Response: Refer to Supplementary EIS Volume 1, sections 3.3.14 and 8.6.6.
35-19	NRW	Land Tenure The Department advises that once the plans for the Wandoan Coal Project have been finalised the proponent should contact NRW to discuss what applications will be required under the Land Act 1994. These may include but are not limited to temporary road closure and permanent road closure applications, permits to occupy, conversion of tenure and applications to purchase state lands. Sufficient time should be allowed for the application and approval process to occur before areas are impacted by the Project's activities.	Response: Refer to Supplementary EIS, Volume 1, sections 3.3.15 and 6.6.2.
35-20	DNRW (now Department of Enviroment and Resource Management)	Land Suitability and Agricultural Lands - Land suitability The reference to Land suitability given in this section should not be confused with Land Capability Classification given the references to Macnish and Grey (Wandoan Land Management Field Manual), and Macnish (Roma LMFM). These references use an eight-class system for identifying land capability in which classes I to III may broadly equate to Suitability classes 1 and 2; these are identified as Good Quality Agricultural Land (GQAL). In general terms, the GQAL mapping identified in the Murilla, Bungil and Taroom Planning Schemes, is based on the land assessment data provided in the Land Management Manuals taking account of the broad mapping scale at which the data has been mapped.	Response: Refer to Supplementary EIS, Volume 1, section 9.3.7.
35-21	DNRW (now Department of Enviroment and Resource Management)	Gas Supply Pipeline Corridor Clearing widths for the pipeline will typically be 10 metres, but up to 20 metres may be required for various sections of the pipeline. The Department requires information on the need for such clearing width given similar projects ability to maintain a 5 metre clearing width to minimise disturbance of land and vegetation. It may be possible to reduce the corridor width where the corridor is on or adjacent to roads.	Response: Refer to Supplementary EIS Volume 1, Chapter 5 Project Construction, section 5.3.3.
35-22	DNRW (now Department of Enviroment and Resource Management)	Please expand the statement to include also the impacts of the gas pipeline on existing soil conservation works that are not part of a Plan approved under the Soil Conservation Act 1986.	Response: Refer to Supplementary EIS, Volume 1, section 9.5.5.
35-23	DNRW (now Department of Enviroment and Resource Management)	Dispersion and Erosion For the gas supply pipeline In relation to re-instating existing soil conservation works, preference should be given to locating the pipeline away from the outlet end of any runoff control works to minimise erosion risks to disturbed land or other construction works within the corridor. Care is needed where the pipeline is located across the land slope to ensure the compaction of soil over the pipeline and leaving a raised spoil to allow for future settlement does not result in the diversion or concentration of overland flows that may result in erosion either within the corridor or on adjacent land. In order to reduce erosion along the pipeline it is recommended that: • the natural flow of runoff is not impeded by leaving a rill over the pipeline particularly in locations where the pipeline is not parallel to existing runoff control works; and • 'whoa boys' are constructed to ensure concentration of runoff does not occur along the route taken by the pipeline.	Response: Refer to Supplementary EIS Volume 1, section 9.6.3.

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35-24	DNRW (now Department of Enviroment and Resource Management)	Mitigation measures —Soils Soil conservation plans - 2nd and 3rd dot points - re-instating existing soil conservation works. This is relevant only to the proposed pipeline works. Re-instatement of such works in the MLA is only relevant in areas where land is to be cultivated. At that time implementation of runoff control works will be dependant on the topography and drainage of the altered landforms. The proposed pipeline corridors should be located away from constructed waterways, or the discharge ends of contour banks, to minimise the risk of erosion on the pipeline corridor, or the need for additional runoff control works.	Response: Refer to Supplementary EIS Volume 1, section 9.6.3.
35-25	DNRW (now Department of Enviroment and Resource Management)	Construction Materials Any construction materials obtained from State owned land will require approval from NRW.	Noted.
35-26	DNRW (now Department of Enviroment and Resource Management)	Post Mining Land Use The land suitability assessment requires re-evaluation since it differs from Departmental studies in the area. NRW is of the view that the land suitabilities reported in the EIS are of a lesser class then occurs. NRW is also of the view that postmining land use should more closely match the existing land classes, consistent with the relevant objective in the 1995 DME publication 'Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland — Land Suitability Assessment Techniques'.	Response: Refer to Supplementary EIS, Volume 1, sections 9.3.7, 9.5.6, and 9.6.5.
35-26	DNRW (now Department of Enviroment and Resource Management)	As indicated, rehabilitation activities should aim to return land to its current land suitability and all means necessary should be taken to facilitate this e.g. independent stripping and appropriate stockpiling of current top and subsoil. If after further justification and agreement circumstances do not permit reinstatement to the agreed current land suitability, land must be returned to no less than one suitability class lower for both dryland cropping and grazing. Table 9-10 – it is understood from the accompanying text that the land suitability class in the table is in reference to dryland crops and not grazing. Clarification is required in this section of the suitability classes stated.	Response: Refer to Supplementary EIS Volume 1, sections 9.5.6, 9.6.3 and 9.6.5.
35-27	DNRW (now Department of Enviroment and Resource Management)	Final Landform Design Please refer to other comments within this response on Final Voids. Spoil piles and tailing dams There appears to be some inconsistence between stated return land suitability classes. Section 9.6.5 p9-35 states that ideally where landform and the land class limitation characteristics can be met, the preferred post mining land uses proposed to be established are that; the flatter gradient sections of spoil stockpiles and tailing dam sites should be returned to Class 3 cropping land or Class 2 grazing land. However this preferred option seems to have been dismissed with no further mention. The Department recommends this preferred option is implemented. Previous reference 9.5.6 (P 9-25) together with 9.6.6 Spoil piles and tailing dams, Paragraph 3 make reference to the return of grazing land to land suitability class 4.	Response: Refer to Supplementary EIS Volume 1, section 9.5.6.
35-27	DNRW (now Department of Enviroment and Resource Management)	The Department does not consider it appropriate for grazing land to be returned at less than land suitability class 3. To do so is not meeting the commitment previously stated of one suitability class less than the current (pre-mining) class (9-35, 9-39). Remediation using stripped topsoil and subsoils should facilitate the return of grazing land to at least land suitability class 3. There is a significant difference between land suitability classes 3 and 4; class 3 being of significantly better quality than 4. For this reason there will be significant (unacceptable) impacts as a result of reducing land which is current land suitability class 2 (or better) for grazing to class 4. The issue of subsidence and settling of rehabilitated areas should be addressed. This can affect runoff, drainage and final landform.	Response: Refer to Supplementary EIS Volume 1, sections 9.6.5 and 25.4.7.
35-28	DNRW (now Department of Enviroment and Resource Management)	Residual Impacts The 1st and 2nd dot points do not reflect the intention of the proposal in Table 9-10 (p9-35) which in general terms is not acceptable to NRW, being of a significantly lower class than can be achieved.	Response: Refer to Supplementary EIS Volume 1, sections 9.5.6 and 9.6.5.
35-29	DNRW (now Department of Enviroment and Resource Management)	Methodology of Assessment - Water Act 2000 This section should also reference the Water Regulation 2002 and should specifically cover the Water Resource Plans and Resource Operations Plans for this particular development including: Water Resource (Fitzroy Basin) Plan 1999 Fitzroy Basin Resource Operations Plan 2006 Water Resource (Great Artesian Basin) Plan 2006 Great Artesian Basin Resource Operations Plan 2006	Response: Refer to the Supplementary EIS Volume 1, section 11.2.
35-30	DNRW (now Department of Enviroment and Resource Management)	For the design of dams that are likely to contain hazardous waste an assessment should be made comparing the yield from storms of shorter duration — e.g. 2, 4, 10 hour — and compare with the 24 hr or 72 hr duration. Most catchments have only short times of concentration, 2–3 hrs, and may expect higher runoff co-efficient from high intensity storms over short durations.	Response: Refer to the Supplementary EIS Volume 1, section 11.2.3.
35-31	DNRW (now Department of Enviroment and Resource Management)	Conceptual Water Management System Design - Sediment Dams The EIS indicates that significant volumes of water can be taken by the sediment dams and can be reused onsite in place of the raw water supplies from the pipeline. This is inconsistent with the statement that the sediment dams will be designed as 'dry' sediment dams that have permanently open low level outlet works and will be emptied within 10 days of filling. The Department supports the release of water that meets the appropriate water quality parameters from the sediment dams for downstream consumptive uses and environmental needs.	Response: Refer to the Supplementary EIS Volume 1, section 11.4.5.
35-32	DNRW (now Department of Enviroment and Resource Management)	Environmental Dams No details are provided on the construction of the environmental dams and whether lining will be required due to the possibility of containing wastes (e.g. salt) from the pit water. If there is a possibility of high levels of salt being stored within these dams they should be lined with a synthetic liner to minimise the risk of seepage to downstream lands or to groundwater. Monitoring would also be required. Conceptual Water Management System Design - Guideline for watercourse diversions The EIS recognises the regional guidelines for watercourse diversions and states that it was written for application within the Bowen Basin (and not the Surat Basin).	Response: Refer to the Supplementary EIS Volume 1, section 11.6.2.
35-32	DNRW (now Department of Enviroment and Resource Management)	The 'Watercourse Diversions – Central Queensland Mining Industry' regional guideline will be applied in the consideration of applications for water licences and development permits for the watercourse diversions within the project area. Information outlined to be considered under the guideline will be required as part of the process for these Authorisations. Local geomorphological characteristics of the watercourses will be taken into account in the design of these structures.	Response: Refer to the Supplementary EIS Volume 1, sections 11.2.3, and 11.6.3.
35-33	DNRW (now Department of Enviroment and Resource Management)	Historical Simulation and Water Balance Assessment - Water Resource (Fitzroy Basin) Plan 1999 (amended August 2005) The EIS states that the Water Resource Plan is in the process of review and is to be completed by the end of 2009. This should be replaced with: The Water Resource (Fitzroy Basin) Plan 1999 is in the process of review and a replacement Water Resource Plan will be finalised by September 2010. This comment applies in a number of sections throughout the EIS and should be appropriately addressed throughout the EIS.	Response: Refer to the Supplementary EIS Volume 1, section 11.2.4.
35-34	DNRW (now Department of Enviroment and Resource Management)	Historical Simulation and Water Balance Assessment - Fitzroy Basin ROP amended April 2006 The current exemption for the take of overland flow for activities authorised under a mining tenement applies for this project. However the Water Resource (Fitzroy Basin) Plan 1999 is currently under review. This review may result in possible amendments to the overland flow provisions during the life of the mine development. The proponent should consult with the Department prior to taking overland flow to ensure appropriate approvals/exemptions are in place. The EIS indicates that there is provision within the Fitzroy Resource Operations Plan (ROP) for licences to be granted on mining tenures to contain runoff or seepage which would otherwise flow from the site to allow for suitable storage and treatment.	Response: Refer to the Supplementary EIS Volume 1, section 11.2.4.
35-34	DNRW (now Department of Enviroment and Resource Management)	The EIS does not reference any proposed take of water from a watercourse that would be required to remove mine site seepage or runoff that is unavoidably discharged or proposed to be discharged into a watercourse. It is unlikely that this provision (section 6.1.3 of the ROP) would be triggered for a new mine development and the Department recommends the removal of the reference to the grant of these licences from the EIS.	Response: Refer to the Supplementary EIS Volume 1, section 11.2.4.
35-35	DNRW (now Department of Enviroment and Resource Management)	Historical Simulation and Water Balance Assessment - Referable dams The controlling legislation for referable dams is now within the Water Supply (Safety & Reliability) Act 2008 rather than the Water Act 2000. The change occurred on 1st July 2008. The Departments notes that the actual application for any referable dams, including how many dams will be affected, will only become known at the detailed design stage when the size of the storages etc. is determined. NRW should be consulted once the detailed design is finalised.	Response: Refer to the Supplementary EIS Volume 1, section 11.2.4.
35-36	DNRW (now Department of Enviroment and Resource Management)	Catchments and Drainage - Table 11-3 Table 11-3 lists the watercourses crossing the MLA's. The Department has undertaken a field assessment of the two features and determined that One-Arm Man Creek and the Unnamed Creek (flows to Juandah Creek) with a catchment area of 1,040ha are not watercourses under the provisions of the Water Act 2000. The Department will advise the proponent accordingly.	Response: Refer to the Supplementary EIS Volume 1, section 11.3.2.
35-37	DNRW (now Department of Enviroment and Resource Management)	Upgrading of Wandoan WWTP The area of the present reserve for the WWTP may limit future expansion. Once the specifications for the wastewater treatment plant are determined, NRW should be contacted to resolve land tenure matters.	Noted

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35-38	DNRW (now Department of Enviroment and Resource Management)	Construction Raw Water - Surface Water The EIS identifies that water for construction may be obtained from existing surface water dams. A water permit will be required under Section 237 of the Water Act 2000 for the take of water from a dam located on a watercourse. If a pump is situated on the storage a development permit under the Integrated Planning Act 1997 will also be required. If the take of water is from an overland flow dam and the mining tenement is granted, no NRW approvals are required for the take of water from the dams for construction purposes under the Water Resource (Fitzroy Basin) Plan 1999. The take of water from existing overland flow dams outside of the mining tenement can occur provided that the existing storages are notified as required under the Water Resource (Fitzroy Basin) Plan 1999.	Response: Refer to the Supplementary EIS Volume 1, section 11.2.4.
35-39	DNRW (now Department of Enviroment and Resource Management)	Raw Water Storage The primary purpose of the dam is to store saline water and prevent it seeping to the surrounding land or underlying soil, groundwater, and surface water. NRW would prefer the use of a synthetic (HDPE) liner. Consideration should also be given to the long term management of the liner e.g. longevity of the liner, remedial action if the liner is damaged, how the liner is replaced if necessary (especially if the dam has water in it) and how damage to the liner is prevented if the dam needs to be scraped out from time to time (assuming salts will be removed). If re-compacted natural clay is used to form a low permeability layer for the dam the location and construction of dam needs to take into consideration the characteristics of the soils on site (e.g. strongly sodic/saline) together with the chemical composition of the liquid to be stored and in turn its impact/effect on the structure of the dams construction material.	Response: Refer to the Supplementary EIS Volume 1, section 11.6.2.
35-39	DNRW (now Department of Enviroment and Resource Management)	Further information should be provided including: • permeability testing of the proposed material for each dam including dam floor, embankment and liner, using wastewater of varying salt concentrations including the maximum values to confirm the design permeability for the dams can be achieved and maintained over time at the maximum salinity content of the dams • an appropriate study of the long-term relationship between chemistry of the dam water and soil material used to construct the banks of the dam; and • risk assessment of the likely effects on surrounding soils affected by an accidental release of water from a dam.	Response: Refer to the Supplementary EIS Volume 1, sections 9.6 and 11.6.2.
35-40	DNRW (now Department of Enviroment and Resource Management)	Downstream Surface Water Flows As mentioned in the comments under section 11.2.3 the Department recommends that the water within the sediment dams that meets the water quality release criteria under the Environmental Authority may be released downstream for consumptive uses and environmental needs. This should reduce the impacts of the take of water on catchment flows. There is an inconsistency between the impacts to downstream entitlement holders described in section 11.5.3 and in section 26-8 of the EIS. Section 11.5.3 describes the impacts as relatively small and section 26-8 describes it as a moderate adverse impact. Clarification on the impact to the downstream licensees is required. Limiting the assessment of the impact on the downstream entitlement holders to reductions in mean annual flow appears insufficient; are there any seasonality effects? What are the impacts of the reduction on the available water to downstream users? Further study is required on the impacts of flow changes on downstream entitlement holders. If impacts are identified the proponent should complete negotiations with the entitlement holders to ensure provision of equivalent water supplies or suitable negotiated outcomes.	Response: Refer to the Supplementary EIS Volume 1, sections 11.5.2, and 11.6.2.
35-41	DNRW (now Department of Enviroment and Resource Management)	Flood Impacts The EIS identifies that the proposed Woleebee Creek diversion could increase flood levels downstream of the site by 300mm. The diversion will require licensing in accordance with the provisions of the Water Act 2000 and the Integrated Planning Act 1997 (taking into account regional guideline for watercourse diversions in conjunction with the ACARP reports). The Department has concerns over the increase in flood levels downstream of the site. The design of the diversions will need to be negotiated with the Department through the licensing process; however it should be noted that increased flood levels should not extend off lease areas. The proponent will need to implement methods to mitigate these impacts.	Response: Refer to the Supplementary EIS Volume 1, sections 11.2.5, and 11.6.4.
35-42	DNRW (now Department of Enviroment and Resource Management)	11.6.1 Surface Water Quality - Creek Diversions and 11.6.6 Aquatic Habitat The Department acknowledges that the detailed Creek Diversion Strategy will be developed with timeframes allowing for establishment of stable, vegetated creek channels prior to diverting creek flows. The proponent has listed measures for preserving aquatic habitat including details about the timing and rehabilitation of the diversion channels. Detailed reports/studies and designs will be required as part of the water licence and development permit processes. Water licence and development permits should be applied for in time to allow for the construction and stabilisation of the diversion prior to the operation of the diversion. It is recommended that the diversion strategy and the commitments on the aquatic habitat are included in the conditions of the environmental authority. Authorisation of the diversions and the information required as part of that process will be addressed under the provisions of the Water Act 2000 and the Integrated Planning Act 1997.	Response: Refer to the Supplementary EIS Volume 1, sections 11.2.3 and 11.6.3.
35-43	DNRW (now Department of Enviroment and Resource Management)	Surface Water Quality - Table 11-14 Parameters for water quality monitoring Table 11-14 on page 11-50 identifies parameters for water quality monitoring. Under event monitoring there is no reference to the monitoring of the water quality parameter - selenium. During the recent water quality monitoring within the Nogoa, Mackenzie and Fitzroy River Systems the issue of the monitoring of selenium and the levels of selenium within water as a result of the discharge of mine affected water was raised. It is recommended that monitoring of selenium occurs during event monitoring and during discharges from the mine site.	Response: Refer to the Supplementary EIS Volume 1, section 11.6.1.
35-43	DNRW (now Department of Enviroment and Resource Management)	Monitoring and analysis of selenium should be required for both water samples (total water Selenium) and for sediment samples (total sediment selenium) collected from bottom mud sediments down stream of stream discharge points. A monitoring program to assess metals and other chemical parameters should commence 'before mining operations begin' to assess background levels so that comparisons can be made after mining commences and discharges take place. Without this pre-assessment the results of monitoring after a discharge event will have little meaning. The recommendations of the Premier's independent advisor, Barry Hart, within the report entitled 'Report to Queensland Premier Review of the Fitzroy River Water Quality Issues' are relevant for the future management of mine water discharge. Please refer to the report at the following link: http://www.epa.qld.gov.au/publications?id=2740	Response: Refer to the Supplementary EIS Volume 1, section 11.6.1.
35-44	DNRW (now Department of Enviroment and Resource Management)	The third main dot point does not mention offsets as a measure to mitigate impacts of the mining and associated operations on the flora despite it being discussed throughout the EIS. This key point needs to be included as it is one of the main ways in which the impacts may be mitigated.	Response: Refer to the Supplementary EIS Volume 1, section 17A.6.
35-45	DNRW (now Department of Enviroment and Resource Management)	Vegetation surveyed as part of the project identified remnant and non-remnant regional ecosystems and in some cases changes to the regional ecosystem type/s. Please undertake the following actions: • provide detail on what criteria were used to identify non-remnant vegetation (e.g. structure (height/canopy cover); function (connections/fragmentation)) to ensure an accurate account of vegetation that may require offsets. • verify any changes to the extent and type of regional ecosystems through a map amendment with the Queensland Herbarium.	Response: Refer to Supplementary EIS Volume 1, Chapter 17A Terrestrial Ecology addendum to the technical report, section 3.4.
35-46	DNRW (now Department of Enviroment and Resource Management)	The removal, diversion and road crossings of Woleebee Creek and Mud Creek will have a significant impact on the remaining remnant vegetation and the connectivity it serves for species utilising these isolated and important corridor/s. As stated in the EIS PB technical report – 'This wildlife corridor is likely to play an important role in the movement of wildlife throughout the landscape, particularly for species such as the Koala (Phascolarctos cinereus) and Greater Glider, which were both observed in these habitats. These linear patches are recognised by State Wildlife Corridor mapping (Environmental Protection Agency 2004b) and are of regional significance under the Biodiversity Planning Assessment for the Brigalow Belt Bioregion (Environmental Protection Agency 2003)'. Satellite imagery interpretation would suggest that Mud Creek exhibits similar vegetation connectivity as Woleebee Creek and the diversions of both are likely to completely isolate those species living within the upper reaches of the creeks.	Noted
35-46	DNRW (now Department of Enviroment and Resource Management)	Connectedness of vegetation exists to the south; however it comprises a completely different regional ecosystem with species such as White Cypress, Bulloak and Ironbark which are unlikely to support some of the specialist species that utilise the riverine regional ecosystems. In addition, the proposed diversions will cross adjoining landzones (not alluvium) which are unlikely (due to the soil type, geology and location of the water table) to support species characteristic of the alluvial riverine systems and therefore unlikely to replace or offset the ecosystems associated with the watercourses to be cleared. As such it is strongly recommended that the pits and infrastructure in this location are adjusted to maintain the creek in its current location and ensure it continues to function in its current or an improved condition.	Response: Refer to Supplementary EIS Volume 1, Chapter 6 Project Operations, section 6.1.
35-47	DNRW (now Department of Enviroment and Resource Management)	In the last sentence it states 'as the VM Act and NC Act do not outline factors for consideration in assessing impacts of a project….'. Please note the Regional Vegetation Management Code for Brigalow Belt and New England Tablelands Bioregions (the RVMC) does outline factors and requirements for consideration in the assessment of proposals to clear vegetation under the Integrated Planning Act 1997 (IPA) where the Vegetation Management Act 1999 (VMA) allows acceptance of an application for assessable clearing. Assessment of the vegetation impacts of the Wandoan Coal Project EIS (Volumes 1-4) must be undertaken against these codes to meet the purposes of the VMA. Several performance requirements of the Regional Vegetation Management Codes cannot be addressed with a vegetation offset – primarily and most importantly the connectivity of vegetation on the site and across the landscape. Please outline the sections of the EIS that address the RVMC requirements or ensure they are addressed and included and the information is provided to NRW for assessment.	Response: Refer to the Supplementary EIS Volume 1, sections 17A.4 and 17A.6, and Volume 2, sections 17A.4 and 17A.6.

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35-48	DNRW (now Department of Enviroment and Resource Management)	The offsets strategy should include NRW as a key stakeholder in its development – currently NRW has been omitted as a key stakeholder in regard to vegetation offsets. A key component of the offset strategy will be to address the clearing of assessable vegetation under the Vegetation Management Act 1999. Involving all stakeholders including NRW in the development of the strategy will ensure any issues are clarified prior to assessment and will help prevent delays.	Response: Refer to the Supplementary EIS Volume 1, section 17A.6, and Volume 2, section 17A.6.
35-49	DNRW (now Department of Enviroment and Resource Management)	The EIS and technical report discuss vegetation offsets very broadly and with a lack of detail to enable critical review. Some of the main components of the Policy for Vegetation Management Offsets (28 September 2007) are alluded to; however there are no specific details of how the policy will be addressed. This includes: • how ecological equivalence is to be obtained; • how the offsets are to be managed; and • how offsets are to be legally secured – are offsets proposed to be sourced and secured before the commencement of the project or is a legally binding agreement proposed, to ensure securing offsets within a reasonable time of commencement of construction of the Wandoan Coal Project? The extent of remnant vegetation within the Taroom Downs subregion is currently less than 7% of the pre-clear extent and therefore it is strongly recommended that vegetation offsets are secured within this subregion. Offsets should also look to enhance connectivity of vegetation in the landscape which is currently limited to watercourses.	Response: Refer to the Supplementary EIS Volume 1, section 17A.6, and Volume 2, section 17A.6.
35-49	DNRW (now Department of Enviroment and Resource Management)	Please note that offsets may be required for: • clearing of any areas of 'Of Concern' and 'Endangered' vegetation; • vegetation proposed to be cleared in and surrounding wetlands; • vegetation proposed to be cleared in and surrounding watercourses; and • clearing of any threshold regional ecosystems. Please note also that offsets for vegetation clearing are not simply a matter of revegetating an area of land. Under the Policy for Vegetation Management Offsets, a maximum of 10% of the offset area may be proposed to be revegetated. The remaining areas of vegetation must be established non-remnant vegetation (not currently protected – e.g. non-remnant on state land) to ensure it attains remnant status within a prescribed period of time. These points have been discussed in a meeting with Xstrata's Joel May and Rob Thatcher on 23/1/09.	Response: Refer to the Supplementary EIS Volume 1, section 17A.6, and Volume 2, section 17A.6.
35-50	DNRW (now Department of Enviroment and Resource Management)	There is a conflict in these two sections, Chapter 28 states: • 'the draft strategy proposes a target ratio of up to 3:1 in terms of the vegetation protected in offsets compared with that disturbed by the Project's mining operations'; whereas Appendix 17A states: • 'Offset areas are proposed to be located within and outside the project area but will include a minimum 3:1 ratio of like for like'. Please ensure that this conflict is corrected. Offsets for clearing vegetation under the Vegetation Management Act 1999 must be undertaken in accordance with the Policy for Vegetation Management Offsets – 28 September 2007.	Response: Refer to the Supplementary EIS Volume 1, sections 17A.6, and **28.?,** and Volume 2, sections 17A.6 and **28.?**.
35-51	DNRW (now Department of Enviroment and Resource Management)	Cultural Heritage Management Plan process A cultural heritage management plan should be developed for all aspects of the project covered by the EIS. This would include the accommodation facilities, new municipal waste facility, airstrip and infrastructure corridors etc.	Response: Refer to Supplementary EIS, Volume 1, sections 20A.4, 20A.5 and 20B.6, and Volume 2, sections 20A.5 and 20B.6.
35-52	DNRW (now Department of Enviroment and Resource Management)	Rehabilitation Hierarchy NRW is concerned that the EIS and Wandoan Joint Venture commitments aim for a lower rehabilitation outcomes than are recommended in Guideline 18: Rehabilitation requirements for mining projects (EPA 2007)	Response: Refer to Supplementary EIS, Volume 1, section 25.4.1.
35-53	DNRW (now Department of Enviroment and Resource Management)	Rehabilitation Action Plan - Final Voids NRW questions the need to have a final void remaining for each pit after the mining has been completed. Alternative mining sequences and overburden management should be considered which may result in a reduced number of voids. The EIS identifies that the final voids are unlikely to be suitable for agricultural purposes and will be investigated for alternative beneficial uses such as wetlands. Table 9-10, p9-35 – indicates an area of 1452ha of class 5 suitability. This area (mostly voids?) represents 4.5% of the total area or 13% of the mining area. The proposed 1452 ha of class 5 land seems excessive and justification is required as to the need for such an area. It is the Department's position at this time that the final voids be designed to minimise the capture of overland flow. The taking of overland flow water under the exemption is to facilitate mining within the Fitzroy Basin and should only be a volume necessary to facilitate the mining operation including meeting the requirements of the proponent's environmental authority, whilst operating as a mine.	Response: Refer to Supplementary EIS Volume 1, sections 6.4.4, 9.5.6, 9.6.5, 11.6.3 and 25.4.6.
35-53	DNRW (now Department of Enviroment and Resource Management)	It is the Department's position at this time that the final voids be designed to minimise the capture of overland flow. The taking of overland flow water under the exemption is to facilitate mining within the Fitzroy Basin and should only be of a volume necessary to facilitate the mining operation including meeting the requirements of the proponent's environmental authority, whilst operating as a mine.	Response: Refer to Supplementary EIS, Volume 1, sections 11.2.5, 11.6.2 and 25.4.6.
35-54	DNRW (now Department of Enviroment and Resource Management)	Rehabilitation Action Plan - Water Storage Dams The EIS identifies that water storage dams will either be retained for agricultural use or rehabilitated. The Department's position at this point in time is that the dams that are constructed under the current overland flow exemption or are constructed to meet the requirements of an environmental authority should be removed post mining. The taking of overland flow water under the exemption is to facilitate mining within the Fitzroy Basin and should only be of a volume necessary to facilitate the mining operations including meeting the requirements of the proponent's environmental authority and is not for the take of water for further uses post mining. Careful disposal of the membrane liner and saline material during decommissioning is required to ensure that saline water does not seep to the surrounding or underlying soil, groundwater, and surface water.	Response: Refer to Supplemantary EIS Volume 1, section 25.4.6.
35-55	DNRW (now Department of Enviroment and Resource Management)	Land Use Although agricultural activities are proposed to recommence after rehabilitation of the mining operation, the proponent has stated that the land will not be returned to the same pre-mining land suitability class and therefore there will be an impact. The cumulative impacts on agricultural land use should be considered if nearby coal deposits outside the Project are also developed.	Response: Refer to Supplementary EIS Volume 1, section 26.3.4.
35-56	DNRW (now Department of Enviroment and Resource Management)	Further information is required on proposed monitoring to ensure performance and integrity of the raw water supply dam (if required) and environmental dams over time. The EIS and EMP should identify parameters that are to be monitored, the frequency of monitoring and what information will be recorded. Parameters to monitor should include: • shallow groundwater levels throughout the season in adjacent unconfined and semi-confined aquifers; • deep drainage losses or groundwater levels throughout the season; • quality of groundwater; and • salinity of groundwater and shallow water tables. Further information identifying the proposed sites to install shallow groundwater monitoring piezometers should be detailed. Monitoring of soil salinity around the dams containing waste should be conducted at least annually to ensure permeability of dams complies with design permeability, and monitoring should be continued for a minimum of 5 years after decommissioning of any water storage structure.	Refer to Supplementary EIS, Volume 1, sections 10.8, 11.6.2 and 27A.2.3
35-57	NRW	The proponent should consult with NRW with regards to road closures and realignments.	Response: Refer to Supplementary EIS, Volume 1, section 6.6.2.
35-58	DNRW (now Department of Enviroment and Resource Management)	Previous advice given by NRW needs to be amended to include Plan No SC345128 covering lots 46 and 47 on FT120 and Lot 44/FT328. Lot 47 may be affected by the option 3 route.	Noted
35-59	DNRW (now Department of Enviroment and Resource Management)	This figure does not include all the parcels identified in Table 2-2 (p35). In particular, lot 64/FT525 should be added and the balance parcels of Lots 62/FT833, and 41/FT603 Also add Lots 46 and 47 on FT120 and Lot 44/FT328 that were omitted on previous advice provided by NRW.	Noted
35-60	DNRW (now Department of Enviroment and Resource Management)	Project Approvals – Likely Project Approvals Summary Please see Attachment 2 for recommended changes to the table which reflect legislative and Departmental requirements. 11. Riverine Protection Permits A riverine protection permit is not required if the activity is: • listed as an exemption under section 814(2) of the Water Act 2000, or • permitted under section 49, 50 or 51 of the Water Regulation 2002. Under sections 49-51 of the Water Regulation 2002 particular activities undertaken by certain entities are permitted (i.e. do not require a riverine protection permit) if they are undertaken in accordance with the:	Noted

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35-60	DNRW (now Department of Enviroment and Resource Management)	• Guideline - Activities in a watercourse, lake or spring carried out by an entity. This guideline provides exemptions to some entities, including local governments, Government Departments and certain government owned corporations • Guideline – Activities in a watercourse, lake or spring associated with mining operations. This guideline may be used by the holder of a mineral development licence or mining lease under the Mineral Resources Act 1989 when destroying native vegetation, excavating, or placing fill in a watercourse, lake or spring necessary for and associated with mining operations within the area of the licence or lease. These guidelines are attached for your reference.	Noted
35-61	DNRW (now Department of Enviroment and Resource Management)	Project Approvals – Likely Project Approvals Summary • Pipeline crossings of creeks may be able to be undertaken in accordance with Guideline - Activities in a watercourse, lake or spring carried out by an entity. This guideline provides exemptions to some entities, including local governments, government departments and certain government-owned corporations. Although the EIS outlines general erosion protection methods, the Department requests that the proponent liaise with NRW regarding details associated with these crossings. • Alternatively riverine protection permits will be required for pipeline crossings of the creek.	Noted
35-62	DNRW (now Department of Enviroment and Resource Management)	Paragraph 9 - Comments on connectivity are inconsistent with comments in sect 3.2.1 page 14.	Response: Refer to Supplementary EIS, Volume 1, section 10.3.2.
35-63	DNRW (now Department of Enviroment and Resource Management)	Paragraph 2 - This statement is incorrect; the Walloon Coal Measures are part of the Great Artesian Basin (GAB) and are recognised as a management unit in the GAB Water Resource Plan (WRP) and GAB Resource Operations Plan (ROP). Therefore the GAB can not be 400m below itself.	Response: Refer to Supplementary EIS, Volume 1, section 10.3.2.
35-64	DNRW (now Department of Enviroment and Resource Management)	Paragraph 7 – This statement is factually wrong. The Great Artesian Basin (GAB) sequence does not start below the Eurombah Formation as stated. Please refer to the Water Resource (Great Artesian Basin) Plan 2006. The Walloon Coal Measures are recognised in the Great Artesian Basin Water Resource Plan as a management unit.	Response: Refer to Supplementary EIS, Volume 1, section 10.3.2.
35-65	DNRW (now Department of Enviroment and Resource Management)	Paragraph 4 – Please refer to comments above in relation to the Groundwater Tech Report v5, Executive Summary, Page v. There is an inference that the Walloon Coal Measures are not part of the Great Artesian Basin sequence which as stated previously is incorrect.	Response: Refer to Supplementary EIS, Volume 1, section 10.3.2.
35-66	DNRW (now Department of Enviroment and Resource Management)	Paragraph 8 – The Juandah Coal Measures are part of the Walloon Coal Measures which is part of the recognised Great Artesian Basin (GAB) sequence so the 'GAB' can not be 400m below the Juandah Coal Measures. It would be acceptable to say the Huttons or Precipice sandstones are XXX m below the Juandah Coal Measures.	Response: Refer to Supplementary EIS, Volume 1, section 10.3.2.
35-67	DNRW (now Department of Enviroment and Resource Management)	Groundwater Technical report - References In general the Groundwater technical Report has a reference under the figure however no reference document are mentioned for Figure 3.1. The reference for the New Nomenclature in Figure 3.1 is also required.	Noted
35-68	DNRW (now Department of Enviroment and Resource Management)	Potential construction water sources – assessment of alternatives The technical report identifies that water for construction may be obtained from existing surface water dams. See requirements/comments for Volume 1 section 11.4.3 Construction Raw Water	Response: Refer to Supplementary EIS, Volume 1, section 11.4.3
35-69	DNRW (now Department of Enviroment and Resource Management)	Flood study technical report - 4.1 Proposed Levees The EIS identifies a number of proposed levees around the mine site, some on the edge of the floodplains and others upstream and downstream of the diversion channels to block existing channels. These levees are required to be detailed further as part of the licensing process. The authorisation of levee banks on mining tenements falls under the jurisdiction of the Environmental Protection Agency. However some of the levees may be incorporated into the licensing of the watercourses diversions where they form plugs for the existing watercourses in which case this would need to be assessed as part of the licensing of the diversion (under the Water Act 2000 and the Integrated Planning Act 1997) and in negotiation with the Environmental Protection Agency.	Response: Refer to Supplementary EIS, Volume 1, section 11.2.3
35-70	DNRW (now Department of Enviroment and Resource Management)	Flood study technical report - 4.2 Proposed Creek Diversions The EIS identifies numerous watercourse diversions including conceptual cross sections and flow characteristics of the existing watercourse compared with the diversion. Where the feature has been identified as a watercourse under the provisions of the Water Act 2000 by NRW, the diversions will require licensing in accordance with the provisions of the Water Act 2000 and the Integrated Planning Act 1997 (taking into account regional guideline for watercourse diversions in conjunction with the ACARP reports). The information within the EIS is conceptual and identifies that the design of the diversion structures will be refined during the licensing process. In granting approvals for the diversion of watercourses the Department aims to achieve a diversion structure that functions as a natural feature of the landscape largely indistinguishable from the pre-existing natural watercourse.	Response: Refer to Supplementary EIS, Volume 1, sections 11.2.3, and 11.6.4.
35-70	DNRW (now Department of Enviroment and Resource Management)	The proposed cross sections outlined within the EIS identify reductions in the floodplains which in some cases will cause increases in flooding upstream and downstream of the diversion. The design of the diversions will need to be negotiated with the Department through the licensing process. The impacts of flooding should not extend off lease areas and the proponent may need to implement methods to mitigate these impacts. The mine layout should ensure that enough space is provided for the diversion corridor to ensure appropriate design of the structure in keeping with the principles of the water diversion guideline.	Response: Refer to Supplementary EIS, Volume 1, sections 11.2.5 and 11.6.4.
35-71	DNRW (now Department of Enviroment and Resource Management)	All vegetation whether remnant or non-remnant on State lands remains assessable until the Mining Lease (ML) or Petroleum Lease (PL) is granted. The exemption under Schedule 8 Table 4 (Specified Activity) of the Integrated Planning Act 1997 only applies once the mining/petroleum tenure is granted (currently it is only an application for lease). Therefore activities associated with the mining of coal (rather than exploration/development) are not yet exempt. As such NRW requires mitigation measures for all assessable vegetation to be addressed through the EIS and conditioned as part of the Environmental Authority/Mining Lease process prior to the granting of the ML.	Response: Refer to the Supplementary EIS Volume 1, Chapter 17A Terrestrial Ecology, sections 17A.4, 17A.5, and 17A.6.
35-72	DNRW (now Department of Enviroment and Resource Management)	A cleared easement of 20 metres appears excessive especially for a water pipeline. Its width should be reduced to minimise detrimental effects on the limited remaining areas of native vegetation in which are traditionally located in the road reserve. Please demonstrate why an easement of 20 metres is necessary for the construction of the pipeline.	Response: Refer to EIS Volume 2, Chapter 5 Project Construction, section 5.4.1.
35-73	DNRW (now Department of Enviroment and Resource Management)	The timeframes outlined in this section for assessment of the Vegetation Clearing Application (VCA) may be reduced from 3 months providing that all matters raised by NRW in regard to the clearing of vegetation have been addressed.	Noted
35-74	DNRW (now Department of Enviroment and Resource Management)	Please justify the need for a minimum 20 metre corridor width for construction and operational activities, particularly as the corridor predominately makes use of the existing road network. It would seem that much of the construction activity and most of the operational activities could be accommodated on the existing road formation. There is a need to justify the requirements for further clearing and stripping of land beyond that for the 3-5 metre for the pipeline trenching and laydown areas. A reduced corridor width will lessen potential impacts on the land and vegetation resources. Please outline also measures that will ensure construction activities such as vegetation windrows, spoil heaps and other operations do not impede or divert overland runoff flows, especially on floodplain areas traversed by the pipeline corridor.	Response: Refer to EIS Volume 2, Chapter 5 Project Construction, section 5.4.1, and Supplementary EIS Volume 2, section 5.4.4.
35-75	DNRW (now Department of Enviroment and Resource Management)	Please clarify the need for maintaining a 20 metre wide easement for access purposes adjacent to the pipeline.	Response: Refer to EIS Volume 2, Chapter 5 Project Construction, section 5.4.1, and Supplementary EIS Volume 2, section 5.4.4.
35-76	DNRW (now Department of Enviroment and Resource Management)	Include the following as potential impacts for both 'Topsoil removal and storage' and 'Civil earthworks'. Impedance or diversion of overland flows by vegetation/topsoil windrows and civil earthworks.	Noted
35-77	DNRW (now Department of Enviroment and Resource Management)	Soil Conservation Plans It is noted that within the area of interest there are no plans approved under the Soil Conservation Act, 1986. However, there has been no assessment made as to whether there are any soil conservation works that may be impacted by the proposed pipeline corridor. In general terms, preference should be given to locating the corridor away from constructed waterways, or the discharge ends of contour banks, to minimise the risk of erosion on the corridor, or the need for additional runoff control works.	Response: Refer to Supplementary EIS Volume 2, section 9.5.5.
35-78	DNRW (now Department of Enviroment and Resource Management)	Will the CSM pipeline require additional clearing when collocated along transmission line easements, particularly considering that joint access facilities should be possible? If so please indicate the extent in length and width and demonstrate why this is necessary.	Response: Refer to EIS Volume 2, Chapter 5 Project Construction, section 5.4.1, and Supplementary EIS Volume 2, section 5.4.4.
35-79	DNRW (now Department of Enviroment and Resource Management)	Removal of vegetation in a watercourse and/or within a spring/wetland will need to be addressed under the Vegetation Management Act 1999, through the Regional Vegetation Management Code in conjunction with the Water Act 2000.	Response: Refer to Supplementary EIS Volume 2, section 17A.2, 17A.4, 17A.5 and 17A.6.
35-80	DNRW (now Department of Enviroment and Resource Management)	Construction: Actions/controls — dot point 3. This refers to measures relating to existing contour banks. Preference should be given to locating the pipeline away from the outlet end of any runoff control works to minimise erosion risks to disturbed land or other construction works within the corridor.	Response: Refer to Supplementary EIS, Volume 1, section 9.6.3 and Volume 2, section 9.6.3.

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35-81	DNRW (now Department of Enviroment and Resource Management)	Construction: Actions/controls — dot point 10. This refers to compaction of soil over the pipeline and leaving a raised spoil to allow for future settlement. Care is needed where the pipeline is located across the land slope to ensure this practice does not result in the diversion or concentration of overland flows that may result in erosion either within the corridor or on adjacent land.	Response: refer to Supplementary EIS, Volume 1, Section 9.6.3 and Volume 2, Section 9.6.3
35-82	DNRW (now Department of Enviroment and Resource Management)	Planning assessment criteria GQAL should be included in sensitive areas. It is noted that mining tenements, irrigation, etc. are listed as sensitive areas. GQAL is mapped in Appendix 2, Fig 2.3.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
35-83	DNRW (now Department of Enviroment and Resource Management)	Coal Seam Gas Water Dot point 7 identifies provisions of the Water Supply (Safety & Reliability) Act, 2008 (WS Act) relating to a CSG Water provider. Clarification is being sought within NRW how these provisions of the WS Act relate to the definition of CSG water as a wastewater.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
35-84	DNRW (now Department of Enviroment and Resource Management)	Approval process — QGC at the Condamine Power Station and Origin's Spring Gully RO Facility are potential suppliers.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
35-85	DNRW (now Department of Enviroment and Resource Management)	Last paragraph notes 'possible temporary closure of the stock route infrastructure to facilitate pipeline construction'. There is a need to clarify alternative arrangements for potential users of stock route watering facilities if affected by temporary closure.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
35-86	DNRW (now Department of Enviroment and Resource Management)	Please clarify actual location of the pipeline corridor. The first paragraph under Property tenures states the pipeline is to be '…located within private properties which adjoin the northern side of road reserves'. Figure 8-2-V3.3 appears to indicate the pipeline within or on the southside of nominated roads. Also, in Appendix 2 Table 4.3 it appears that a substantial area of the roads is incorporated into the proposed corridor.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
35-87	DNRW (now Department of Enviroment and Resource Management)	Environmental Aspects. Please correct error. Watercourses identified are located in the Southern Corridor option — not the Western Corridor option.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
35-88	DNRW (now Department of Enviroment and Resource Management)	Bungil Planning Scheme, 1st dot point. Clarify the statement in relation to SPP1/92 '.. on lots greater than 1000 ha in the rural zone.' SPP1/92 has implications not only on land greater than 1000 ha.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
35-89	DNRW (now Department of Enviroment and Resource Management)	The Glebe Weir raising should not impact on the prospects of future construction of Nathan Dam. Glebe Weir's raising is regarded by NRW (and the Central Queensland Regional Water Supply Strategy) as a temporary measure pre Nathan Dam. Therefore any contractual arrangements (associated with the weir raising and the associated allocations) between the proponent and client should include arrangements to revert allocations to the Nathan Dam project when it is built.	Response: Refer to Supplementary EIS Volume 4, section 8.1.6
35-89	DNRW (now Department of Enviroment and Resource Management)	Processes to amend the ROP would not be initiated until there is certainty that the proposed Glebe Weir raising will proceed and the details of the proposed amendment are submitted by SunWater. Therefore confirmation or otherwise of details proposed in the EIS cannot be finalised until the completion of the ROP amendment. These details include the process to grant the 'new' allocation created through the raising of Glebe Weir, its volume and priority group, operating arrangements, and the change (trading) rules to enable the proponent to obtain additional allocation from other allocation holders and to convert medium priority allocation to high priority.	Response: Refer to Supplementary EIS Volume 4, section 8.1.1
35-89	DNRW (now Department of Enviroment and Resource Management)	Converting from Medium or Medium A Water Allocations to High priority In relation to the change rules for converting between priority groups, the EIS has not considered other potential needs within the Dawson Valley Water Supply Scheme for additional 'High Priority' water allocations. For example, NRW is aware that the Banana Regional Council has previously expressed interest in obtaining additional high priority water for town water supply purposes by conversion of medium priority water allocations. In any future ROP amendment, NRW would need to consider expanding the scope for conversion of allocations for the short term (pre Nathan Dam) needs for high priority water for others. Increasing the scope for allocation conversion potentially impacts on the 'conversion rate' between priority groups and therefore could increase the volume of Medium or Medium A priority allocation required for conversion. It is noted that the EIS does not provide explicit conversion rates. NRW recommends that the proponent evaluate the potential implications on the conversion rate of converting more Medium and Medium A Priority allocations to High Priority. NRW welcomes further discussion on this matter. Impacts on proposed Nathan Dam development.	Response: Refer to Supplementary EIS Volume 4, section 8.1.1
35-89	DNRW (now Department of Enviroment and Resource Management)	The Glebe Weir raising should not impact on the prospects of future construction of Nathan Dam. Glebe Weir's raising is regarded by NRW (and the Central Queensland Regional Water Supply Strategy) as a temporary measure pre Nathan Dam. Therefore any contractual arrangements (associated with the weir raising and the associated allocations) between the proponent and client should include arrangements to revert allocations to the Nathan Dam project when it is built. Impacts on Infrastructure The impact of raising Glebe Weir on existing infrastructure (e.g. pumps) should be clearly identified with a negotiated outcome between the infrastructure owner and proponent.	Response: Refer to Supplementary EIS Volume 4, section 8.1.6
35-89	DNRW (now Department of Enviroment and Resource Management)	Impacts of Glebe Weir raising on existing entitlements The proponent should be required to complete negotiations with affected holders of supplemented and un-supplemented water entitlements to ensure the provision of water supplies equivalent to those provided under their current water entitlements, or propose and advise of other suitable outcomes. The proponent should submit to NRW for review and approval the proposed arrangements for providing affected entitlement holders with equivalent opportunity to obtain the water under their entitlement. NRW welcome discussions with SunWater during development of those arrangements.	Response: Refer to Supplementary EIS Volume 4, section 8.1.1
35-89	DNRW (now Department of Enviroment and Resource Management)	Converting from Medium or Medium A Water Allocations to High priority In relation to the change rules for converting between priority groups, the EIS has not considered other potential needs within the Dawson Valley Water Supply Scheme for additional 'High Priority' water allocations. For example, NRW is aware that the Banana Regional Council has previously expressed interest in obtaining additional high priority water for town water supply purposes by conversion of medium priority water allocations. In any future ROP amendment, NRW would need to consider expanding the scope for conversion of allocations for the short term (pre Nathan Dam) needs for high priority water for others. Increasing the scope for allocation conversion potentially impacts on the 'conversion rate' between priority groups and therefore could increase the volume of Medium or Medium A priority allocation required for conversion.	Response: Refer to Supplementary EIS Volume 4, section 8.1.1
35-89	DNRW (now Department of Enviroment and Resource Management)	It is noted that the EIS does not provide explicit conversion rates. NRW recommends that the proponent evaluate the potential implications on the conversion rate of converting more Medium and Medium A Priority allocations to High Priority. NRW welcomes further discussion on this matter.	Response: Refer to Supplementary EIS Volume 4, section 8.1.1
35-89	DNRW (now Department of Enviroment and Resource Management)	The Glebe Weir raising should not impact on the prospects of future construction of Nathan Dam. Glebe Weir's raising is regarded by NRW (and the Central Queensland Regional Water Supply Strategy) as a temporary measure pre Nathan Dam. Therefore any contractual arrangements (associated with the weir raising and the associated allocations) between the proponent and client should include arrangements to revert allocations to the Nathan Dam project when it is built.	Response: Refer to Supplementary EIS Volume 4, section 8.1.6

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35-89	DNRW (now Department of Enviroment and Resource Management)	The proponent should be required to complete negotiations with affected holders of supplemented and un-supplemented water entitlements to ensure the provision of water supplies equivalent to those provided under their current water entitlements, or propose and advise of other suitable outcomes. The proponent should submit to NRW for review and approval the proposed arrangements for providing affected entitlement holders with equivalent opportunity to obtain the water under their entitlement. NRW welcome discussions with SunWater during development of those arrangements.	Response: Refer to Supplementary EIS Volume 4, section 8.1.1
35-89	DNRW (now Department of Enviroment and Resource Management)	The impact of raising Glebe Weir on existing infrastructure (e.g. pumps) should be clearly identified with a negotiated outcome between the infrastructure owner and proponent.	Response: Refer to Supplementary EIS Volume 4, section 7.2
35-90	DNRW (now Department of Enviroment and Resource Management)	This 3-1 should also address the approvals required for obtaining an allocation from the weir, the change in priority of the allocation and the relocation of the water, including the relationship with the Resource Operations Plan amendments.	Response: Refer to Supplementary EIS Volume 4, section 3.4
35-91	DNRW (now Department of Enviroment and Resource Management)	A cleared easement of 30 metres is excessive especially for a water pipeline. Machinery and operations should be encouraged to reduce this width as it will have a detrimental effect on the limited remaining areas of native vegetation which are traditionally located in the road reserve. Please demonstrate why an easement of 30 metres is necessary for the construction of the pipeline. Clearing for construction should be limited to less than half this width. This will also serve to reduce the extent of offsets required for construction of the pipeline.	Response: Refer to Supplementary EIS Volume 4, section 5.2.1
35-92	DNRW (now Department of Enviroment and Resource Management)	Surface Water - General Environmental Flow Objectives (EFOs) are established by the Water Resource (Fitzroy Basin) Water Resource Plan, not by the Resource Operations Plan as stated in the EIS. This section suggests conversion of Medium A priority to High Priority allocation and elsewhere to converting Medium Priority. The priority should be clarified and consistent.	Response: Refer to Supplementary EIS Volume 4, section 8.1.10
35-93	DNRW (now Department of Enviroment and Resource Management)	Surface Water – Description of Environmental Values - Existing Water Resource Development In this section the incorrect and inconsistent terminology for unsupplemented 'Water Management Areas' should be corrected.	Response: Refer to Supplementary EIS Volume 4, section 8.1.10
35-94	DNRW (now Department of Enviroment and Resource Management)	The EIS should state that the unsupplemented water entitlement holders take water in accordance with the rules and arrangements specified in the ROP. The Dawson Valley Water Management Area is not divided into two areas as indicated. The Dawson Valley Water Management Area covers the Dawson River from the current upstream limit of Glebe Weir (AMTD 356.5) to the Fitzroy River junction (refer ROP Chapter 5, Section 5.1.1). The EIS indicates that the Glebe Weir proposals only potentially impact on water supply in the Dawson Valley Water Supply Scheme and Water Management Area. The EIS should include comment on why there are no potential impacts further downstream in the Fitzroy River.	Response: Refer to Supplementary EIS Volume 4, section 8.1.10
35-95	DNRW (now Department of Enviroment and Resource Management)	Figure 8-4 Legend Correct the name from the 'Lower Fitzroy Water Management Area' to 'Fitzroy Water Management Area'.	Response: Refer to Supplementary EIS Volume 4, section 8.1.10
35-96	DNRW (now Department of Enviroment and Resource Management)	The EIS makes the following statement 'Therefore water harvesting (unsupplemented) entitlements have not been converted to water allocations in the Dawson Water Management Area because the performance of these entitlements can not be determined'. This statement should be changed to 'Therefore water harvesting (unsupplemented) entitlements have not yet been converted to water allocations in the Dawson Water Management Area.'	Response: Refer to Supplementary EIS Volume 4, section 8.1.10
35-97	DNRW (now Department of Enviroment and Resource Management)	The EIS should indicate that the operational rules for the Dawson Valley Water Supply Scheme are specified in the ROP. The operational arrangements in the ROP aim to maintain a supply from Glebe Weir for local use. SunWater should confirm the validity of the related statements in the EIS, including the reference to reduced allocation charges.	Response: Refer to Supplementary EIS Volume 4, section 8.1.10
35-98	DNRW (now Department of Enviroment and Resource Management)	Surface Water – Description of Environmental Values - Existing Water Resource Development In this section the incorrect and inconsistent terminology for unsupplemented 'Water Management Areas' should be corrected. The EIS should state that the unsupplemented water entitlement holders take water in accordance with the rules and arrangements specified in the ROP. The Dawson Valley Water Management Area is not divided into two areas as indicated. The Dawson Valley Water Management Area covers the Dawson River from the current upstream limit of Glebe Weir (AMTD 356.5) to the Fitzroy River junction (refer ROP Chapter 5, Section 5.1.1). The EIS indicates that the Glebe Weir proposals only potentially impact on water supply in the Dawson Valley Water Supply Scheme and Water Management Area. The EIS should include comment on why there are no potential impacts further downstream in the Fitzroy River. Figure 8-4 Legend Correct the name from the 'Lower Fitzroy Water Management Area' to 'Fitzroy Water Management Area'. The EIS makes the following statement 'Therefore water harvesting (unsupplemented) entitlements have not been converted to water allocations in the Dawson Water Management Area because the performance of these entitlements can not be determined'. This statement should be changed to 'Therefore water harvesting (unsupplemented) entitlements have not yet been converted to water allocations in the Dawson Water Management Area.' The EIS should indicate that the operational rules for the Dawson Valley Water Supply Scheme are specified in the ROP. The operational arrangements in the ROP aim to maintain a supply from Glebe Weir for local use. SunWater should confirm the validity of the related statements in the EIS, including the reference to reduced allocation charges.	Response: Refer to Supplementary EIS Volume 4, section 8.1.10
35-99	DNRW (now Department of Enviroment and Resource Management)	Surface Water – Description of Environmental Values - WASOs and EFOs This section contains several references to the existing 'WRP' scenario, condition etc. The reference or comparison case being used is the existing ROP case and the EIS should be corrected accordingly. This section contains several references to converting 'Medium Priority' whereas elsewhere the EIS refers to converting 'Medium A Priority'. The references should be clarified and consistent with references elsewhere. In relation to the first post winter flow event, the criteria should be corrected to 'starts between 15 September and 10 April'.	Response: Refer to Supplementary EIS Volume 4, section 8.1.10
35-100	DNRW (now Department of Enviroment and Resource Management)	Surface Water – Potential Impacts and Mitigation Measures - WASOs and EFOs Table 8-13 The table does not indicate any changes to the existing operating rules for Glebe Weir. It would be informative if this is confirmed in the EIS. The table suggests inconsistent conversion rates for Medium to High Priority for the 7,000 ML demand compared to the 8,500 ML demand. Is the table based on conversion of Medium or Medium A Priority? The conversion rate and relevant priority group should be confirmed and stated.	Response: Refer to Supplementary EIS Volume 4, section 8.1.8
35-101	DNRW (now Department of Enviroment and Resource Management)	Table 8-15 The modelled performance indicator should be shown for both 'Medium' and 'Medium A' priority groups separately.	Response: Refer to Supplementary EIS Volume 4, section 8.1.3
35-102	DNRW (now Department of Enviroment and Resource Management)	Surface Water – Potential Impacts and Mitigation Measures - Unsupplemented Water Users Refer to comments on page 8-9 in relation to the structure of the Dawson Valley Water Management Area to correct the description in this section. The impact on 'missed waterharvesting opportunity' is only one measure of impact on an unsupplemented water user. The actual impact can be affected by other measures such as changes to the seasonal distribution of available pumping days. This should be addressed in the EIS. Table 8-16 This table contains a number of nodes that are located on Dawson River tributaries and therefore cannot be impacted by the proposal. It is preferred that the tributary stream nodes be removed and the trunk stream nodes presented in a more logical (geographical) sequence with appropriate descriptors (labels) to improve understanding.	Response: Refer to Supplementary EIS Volume 4, section 8.1.5
35-103	DNRW (now Department of Enviroment and Resource Management)	Surface Water – Potential Impacts and Mitigation Measures - Summary of Findings Third dot point from bottom of page. The statement 'retirement of medium priority water' is inconsistent with previous conversion concepts. This statement should be clarified. This summary section should be revised consistent with responses and comments on previous sections.	Response: Refer to Supplementary EIS Volume 4, section 8.1.1
35-104	DNRW (now Department of Enviroment and Resource Management)	Please note that regional ecosystem 11.9.2 listed in the EIS as 'Of Concern' is actually a 'Not of Concern' regional ecosystem.	Response: Refer to Supplementary EIS Volume 4, section 9.2.4
35-105	DNRW (now Department of Enviroment and Resource Management)	Please provide detail of the Operational Habitat Management Plan and how it will identify and minimise operational impacts on remaining vegetation. At present the level of detail (including the preliminary plan in Appendix 12-C) is insufficient to provide critical comment.	Response: Refer to Supplementary EIS Volume 4, section 9.3
35-106	DNRW (now Department of Enviroment and Resource Management)	Ground truthing of remnant vegetation by the consultants indicates changes to the regional ecosystem type and extent within the inundation area and pipeline route. As such it is recommended that a map amendment is submitted to the Queensland Herbarium to verify and amend the vegetation extent and type where necessary.	Response: Refer to Supplementary EIS Volume 4, section 9.2.4

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35-107	DNRW (now Department of Enviroment and Resource Management)	The ground truthing of the pipeline route identified non-remnant vegetation. It is stated in this report that 'Although some areas contain the same floristic elements as remnant Brigalow communities, the relative abundance of these species varies significantly…'. In regard to the Vegetation Management Act 1999 (VMA), all vegetation on state land is assessable. Age and/or structure components are not the primary factors when assessing regrowth on state land. Therefore areas of vegetation that may have been omitted for EPBCA requirements will require demonstration as to why they do not need to be assessed against VMA requirements. Table 2 – Condition Assessment refers to a condition assessment for regrowth vegetation. However, it is unclear where in the EIS this has been used to identify the condition of non-remnant vegetation. Please identify all native vegetation in the pipeline route and classify as per your condition assessment to enable effective assessment of potential clearing.	Response: Refer to Supplementary EIS Volume 4, section 9.2.2.1, 9.2.5
35-108	DNRW (now Department of Enviroment and Resource Management)	The social impacts chapter of the EIS for the proposed raising of Glebe Weir needs to assess the potential local impacts associated with the productive capacity of the medium priority water being converted for use by the project not just the impact on the individual allocation holder.	Response: Refer to Supplementary EIS Volume 4, section 17.2
35-109	DNRW (now Department of Enviroment and Resource Management)	The proposed pump station on the bank of Cockatoo Creek will require a development permit for the installation of operational works for the taking of water.	Response: Refer to Supplementary EIS Volume 4, section 3.1
35-110	DNRW (now Department of Enviroment and Resource Management)	In the Glebe Weir water supply option (Volume 4) the Forestry Act 1959 is only listed in the as of potential relevance to some aspects of the Glebe Option Project section. The Forestry Act 1959 is of relevance and should be listed in the relevant State legislation section and the approvals required should be outlined.	Response: Refer to Supplementary EIS Volume 4, section 3.3
36-2	Agforce	1. Operational Water Supply — Glebe Weir Option The three separate raw water supply options for the project all involve positive and negative impacts. However, the clear preference by the WJV for the Glebe Weir option to be utilized for the supply of raw water is questioned. There are a number of issues associated with this option that are a cause for great concern, particularly of concern are the possible impacts for landowners that currently operate irrigation practices in the region.	Noted
36-3	Agforce	1.1 Conversion Ratios Chapter 8 of Volume 4, the Glebe Weir raising option predicts that increasing the glebe by 12400 ML will produce 6500 ML of high priority yield (conversion ratio 1.9 times) with no impact on existing users within the Dawson Valley Water Supply Scheme or to Environmental Flow Objectives. The modelling also determines a 2000 ML shortfall which the project indicates could be obtained by purchasing 3210 ML of Medium A priority allocation from the Theodore section of the scheme and converting this (through an amendment of the ROP) to the 2000 ML of High Priority yield required by the project (a conversion ratio of 1.6 times). However, when the conversion ratio of Emerald is 3 times, there is some question as to how the modelling obtains such good reliability out of the Dawson system?	Response: Refer to Supplementary EIS Volume 4, section 8.1.4
36-4	Agforce	1.2 Modelling Reliability Section 8.3.2.3 of chapter 8 outlines the reliability of water for medium security users to be at approximately 83% to 84%. This may be the case for allocations over the entire year; however the modelling has failed to include the result of the impact of changes in relation to the timing of allocations. That is, there is a significant possibility that the timing of announced allocations could be shifted back to later in the water year; this would especially be the case if the Glebe Weir and bladder is not full at the start of the year. The changing of the timing of allocations would critically impact upon certain irrigators who rely specifically on water earlier in the season for production. Thus, the impact of the timing of allocations which would subsequently negatively impact various irrigators is an issue that urgently needs to be taken into account when modelling this scenario.	Response: Refer to Supplementary EIS Volume 4, section 8.1.3
36-5	Agforce	Management of Glebe Weir Historically, the Glebe Weir has been emptied at the end of the water year, with any remaining water being released to supply downstream demand. It has been highlighted in Chapter 8, that the Glebe Weir will possibly be kept "full or near full more frequently" to satisfy the High Priority Demand that will subsequently be increased as a direct result of the Project. This potential change of Weir management raises the serious question as to how these management practices will impact on the reliability and access of water out of the Glebe. In particular, how this changed management will affect agricultural landholders downstream that have historically relied on this end of year release for production capabilities.	Response: Refer to Supplementary EIS Volume 4, section 8.1.3
36-6	Agforce	Bladder Options A bladder is currently the preferred option for increasing the storage capacity of the Glebe Weir; however this is dependent on the current enquiry into the collapsing of the bladder at Bedford Weir. The next option, should the bladder prove unsuitable, is installing steel shutter gates. Through the EIS it is understood that to utilise this option, instalment of the steel gates would require draining of the weir. If this is the case, the considerable impacts of the increased flow to downstream users must be considered. Additionally, the potential environmental impacts in relation to downstream bank erosion, increased sediment loads and turbidity would all need to be considered and included in any Environmental Management Plan. If the steel gate shutter option proves to be necessary, one must question the economic validity behind the WJV's preference of this raw water supply option over the Southern or Western Coal Seam Methane Water Supply options.	Response: Refer to Supplementary EIS Volume 4, section 5.1.1
36-7	Agforce	Vegetation Clearing Rate The final matter in relation to the selection of the Glebe Weir option in comparison to the other two options for raw water supply surrounds the issue of clearing. In reference to Chapter 26, Cumulative Impacts Table 26-7; there is some question surrounding the choice of option 3 as the preferred option when the total remnant and non-remnant vegetation to be cleared as a result exceeds well over 10 times that of the other two options. The significant environmental and economic impacts caused as a result of large amounts of clearing is questioned, especially since two other options currently exist where the clearing rate required is significantly less than the Glebe Weir option.	Response: Refer to EIS Volume 1, section 1.5.3.
36-8	Agforce	2. Operational Water Supply — Southern and Western Pipeline Options The alternative option of a Southern or Western pipeline to supply operational water for the Project also raises a number of issues. 2.1 Weed Control The majority of landholders have raised serious concerns about the impacts of the pipeline option on the spread of weeds in the region. This particularly relates to concern over the spread of Parthenium, especially as the Wandoan area is declared free of the species. AgForce has noted that the WJV has a weed control plan in place; however questions remain surrounding maintaining and auditing such a plan during operation. These concerns primarily relate to whether there are sufficient opportunities for landholders to communicate with the WJV any perceived outbreak of weeds in the region as a result of construction and operation activities of the pipeline. Additionally, whether there is scope for the WJV to respond to such reporting's in a timely and satisfactory manner that will result in eradication and limiting the further spread of weeds in the region.	Response: Refer to Supplementary EIS Volume 2, section 17A.5.2.
36-9	Agforce	2.2 Compensation Landholders also raised the issue of compensation for attendance of the consultation meetings held by the WJV in relation to the Project. This issue merits further consideration in any compensation agreement as a result of WJV construction and operation activities, insofar as including lost working hours as a result of attendance.	Noted
36-10	Agforce	Landholders were also concerned about the possibility of future loss of production as a result of the pipeline depth; the potential for contamination as a result of leakage from the pipeline; and/or the potential for livestock to injure themselves on the air valves of the pipeline. If the pipeline option is undertaken, these concerns should be included in any compensation negotiations with landholders.	Response: Refer to Supplementary EIS Volume 2, sections 9.6.5 and 21.6.7.
36-11	Agforce	Lastly, the issue of compensation also needs to be considered when looking at the possible future uses for the pipeline. That is, according to the EIS the two most likely uses for the pipeline upon the Project's completion is either abandonment or beneficial reuse. If the latter option is utilized, questions remain as to the complexities surrounding any future compensation as a result of negative impacts of any beneficial reuse activities.	Response: Refer to Supplementary EIS Volume 2, section 21.6.7.
36-12	Agforce	2.3 Coal Seam Gas Water The option for either a Southern or Western pipeline to supply coal seam methane water for the Project requires a raw water storage dam to be constructed. The EIS has highlighted the potential for clay-lining or polyethylene lining to be used in the construction of the dam. If this option is undertaken, AgForce advocates the use of synthetic liners for the raw water storage dam due to the potential for environmental impacts should leakage occur In addition, monitoring should be undertaken to ensure early detection of any seepage as well as regular inspections of the dams to ensure leakage is not occurring. This is of concern due to the potential for contamination of underlying soil and groundwater. Therefore, a synthetic lining is preferred to prevent infiltration which will in turn protect the land for future agricultural use.	Response: refer to Supplementary EIS, Volume 1, sections 10.8 and 11.6.2.
36-13	Agforce	Typically coal seam gas water is high in contaminants (notably salts), as such the EIS states that any required treatment of the water will be undertaken by the water supplier, with the WJV to take responsibility of the water from the point of the storage pond onwards. This chain of responsibility is of some concern to AgForce, primarily due to the potential for failings in the system. Therefore, AgForce recommends scope to be made for the inclusion of an agreement between the water supplier and the WJV for regular reporting on the quantity and quality of the Coal Seam Gas treated water; or alternatively the water supplier should undertake to notify the WJV within an appropriate timeframe of any change in the quality of the Coal Seam Gas treated water. Further to this point, the WJV should enact procedures for utilizing an alternative water source if there is a reported change in the quality of the treated water that is beyond the environmental guidelines for appropriate use.	Response: refer to Supplementary EIS, Volume 1, section 11.6.5.
36-14	Agforce	The issue of decommissioning the ponds so that salt removal is undertaken should also be included in the initial project planning and any Environmental Management Plan.	Refer to Supplementary EIS, section 11.6.5, 25.4.6, 27A.2.3 and 27A.2.7.

Submission Number	Submitter	Submission	Response
36-15	Agforce	3. Gas Pipeline Construction The are a number of issues raised by property owners affected by the gas pipeline, which include: the location of the corridor, maintenance and access; concerns surrounding the Project process; impacts on business; proposed pipeline depths; concerns about the impact of the gas pipeline on property values; the compensation and valuation process; cultivation concerns and environmental concerns.	Noted
36-16	Agforce	As such a number of points need further clarification, these include: How were issues such as the potential impacts on agricultural land and the existing and future pastoral business plans resolved? Additionally, what was the outcome in relation to property owners' concerns surrounding the loss of further grazing and cultivation land? Did the WJV agree to requests for testing and release points to be fenced and maintained by the WJV? How were concerns surrounding the impacts on soil disturbance and maintenance of contour banks to limit erosion addressed? Has the WJV provided further, detailed information to property owners as a result of their request for further information?	Response: Refer to Supplementary EIS Volume 1, sections 4.5, 9.5.5, 9.5.6, 21.8.
36-17	Agforce	Additionally, property owners raised the concern that the proposed depth of the pipeline did not allow for continued cultivation activities such as blade ploughing. Was the request for the pipeline to be placed at a depth that allowed for farming activities granted? If not, has scope been included in compensation agreements for lost cultivation land due to the gas pipeline construction?	Response: Refer to Supplementary EIS Volume 1, sections 5.3.3 and 6.11.
36-18	Agforce	Further to this issue of compensation, there is clear evidence that a one-off payment would not compensate for continual nuisances and disturbances the pipeline would cause to crops and pastures during construction, operation and maintenance activities. Has provision been made for future compensation to property owners for these disturbances?	Response: Refer to Supplementary EIS Volume 1, section 6.11.
36-19	Agforce	Other issues in relation to the gas pipeline construction include, whether due consideration will be given to the impacts of construction noise and dust on stock and pastures. That is, will property owners be included in the decision making regime for the timing of pipeline construction so these impacts do not unduly affect their stock and pastures? In addition to this, what scope has there been for a weed management plan in the construction of the pipeline? What is the WJV's accountability for any perceived weed outbreak on property owner's land as a result of the pipeline construction?	Response: Refer to EIS Volume 1 sections 13.7 and 15.6.1, and Supplementary EIS Volume 1, section 17A.5.
36-20	Agforce	4. Water Use — Surrounding Bores The EIS states that the Project is expected to have negligible impacts on users and environmental values of groundwater from the GAB and sub-artesian bores. Further to this, the WJV has "committed to make good any water losses caused as a direct result of mining activities." This statement raises two questions: the first of which relates to how this water usage will be regulated and monitored? This issue has been raised, as there has been anecdotal evidence from our members that current bore measurement activities by the WJV are inaccurate and/or have been attributed to the wrong bore. Thus, the resulting inaccuracies in measurements have the potential to impact on the WJV's "make good" provisions. The second issue relates to if landholders are affected by water loss as a result of mining activities, do these "make good" provisions also entail compensation for any loss of productivity as a result of water loss?	Response: Refer to Supplementary EIS, Volume1 sections 10.6.2 and 10.8.
36-21	Agforce	Further to the bore issue, the EIS highlights other bores drawing from the Precipice Sandstone aquifer could potentially be affected by the additional extraction, as well as drawdown having the potential to impact a number of nearby receptors (spring vents and baseflow streams), There is some concern in relation to the groundwater supplies of surrounding landholders being adversely impacted by the drawdown of groundwater water levels around the mining leases. Moreover, there exists further concern by landholders that are further away from the mine, that in the case where their groundwater supply is depleted, they will not have an agreement for an alternative supply. This concern is further impacted by the decreased rainfall in the area over the last few years. AgForce is seeking that the WJV address concerns surrounding modelling and determining which landholders will be affected and by how much. In conjunction with this, AgForce notes that it is very difficult for landholders to prove their water supplies have been affected. AgForce, on behalf of landholders in the area, ask that monitoring bores cover the whole catchment to provide accurate groundwater modelling across the catchment.	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
36-22	Agforce	As the impacts to sub-artesian water was highlighted as an area of main concern for Wandoan and Taroom residents alike. These issues need to be addressed to the satisfaction of all stakeholders.	Response: Refer to Supplementary EIS Volume 1, section 10.8.
36-23	Agforce	Further to the issue of water use, the EIS states that "the Hutton Sandstone is heavily exploited for stock water. Generally bores tapping the Hutton Sandstone are located in the area where the Hutton Sandstone and Injune Creek Group are close to the surface". AgForce takes umbrage at the use of the word "exploited" in relation to water use for stock. AgForce strongly believes that stock and domestic sub-artesian bores do not represent a risk to the system as their flow is controlled, thereby promoting the sustainable use of Queensland's water resources. Thus, due consideration needs to be given to the implied negative connotations of using this word in relation to stock and domestic water use.	Response: Refer to Supplementary EIS, Volume 1, sections 10.3.3 and 10.8.
36-24	Agforce	5. Other— GQAL. Roads. Rehabilitation & Compensation There are a number of other issues relating to the EIS that we believe should be addressed. As such we have outlined these issues below:	Noted
36-25	Agforce	5.1 Good Quality Agricultural Land (GQAL) The re-classification of GQAL by the project as a lower class different to that listed under the Taroom Shire Planning Scheme is a cause for some concern. Whether this re-classification of findings was based on an independent report or whether it originates from a report funded by the Project is an issue that needs to be addressed. The independence and subsequent veracity of the report's re-classifying of GQAL to lower classes needs to be established as this has direct effects into issues of compensation for landholders.	Response: Refer to Supplementary EIS, Volume 1, sections 9.3.7 and 9.3.9.
36-26	Agforce	Further to this, the entire issue of reallocation of GQAL in Queensland for mining is an issue to which AgForce is fundamentally opposed given the nature of its scarcity and its productive importance for farming in Australia. Whilst AgForce recognizes the substantial economic benefits gained by the Project, the loss of GQAL and its affects on food security needs to be recognized. Additionally, the residual impact of the decrease in land suitability classes for cropping and cattle grazing as a result of the Project's activities should be considered in issues of compensation in relation to loss of productive capabilities.	Response: Refer to Supplementary EIS, Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8, 22.5 and 22.6.
36-27	Agforce	5.2 Road Impacts Whilst AgForce commends the development of a road transport plan that minimizes commercial vehicle activity during certain times, e.g. mitigating impacts around school transport hours; the impacts on the roads themselves need to be discussed. The Project recognizes that the construction and operation of the mine will result in increased heavy commercial vehicle activity in the area around the Project as well as along the Warrego and Leichardt Highways. The Project even takes steps to re-construct those sections of road that are deemed a safety risk due to increased heavy vehicle loads. However, what the EIS fails to include is any rehabilitation efforts to mitigate the impacts caused by increased heavy vehicle loads on the roads, i.e. the increased rapidity of the deterioration of road infrastructure caused by mining transport activities.	Response: Refer to Supplementary EIS, section 12.5.2.
36-28	Agforce	Although the EIS states that the Project contributes to increases in traffic levels of less than 5% on the surrounding network, this 5% will primarily entail heavy vehicle loads. Therefore, as roads are a public infrastructure, what measures will be undertaken by the WJV to ensure that the roads are rehabilitated or maintained throughout the life of the project in a suitable condition?	Response: Refer to Supplementary EIS, section 12.5.2.
36-29	Agforce	5.3 Rehabilitation The EIS states, that following decommissioning, infrastructure areas and roads will be returned to pre-mining landform where practicable. Additionally, the post mining land use of areas is proposed to be beef cattle grazing and dry land cropping, as occurs in the area pre-mining. Subsequently, the EIS states that the Project will "aim to return infrastructure areas to the same land suitability class as existed pro-mining, or at a minimum, one land suitability class less than existing pm- mining class". These statements raise a number of questions in relation to agricultural landholders. Firstly, in reference to areas that are to be returned to a class less than the existing pre-mining class; what compensation measures are in place for those owners of the land? Additionally, provisions for compensation measures to account for loss of productivity and subsequent effects on revenue as a result of the quality of land being diminished are sought.	Response: Refer to Supplementary EIS, Volume 1, sections 6.10, 9.5.6, 9.5.7, 9.6.5, 9.6.8, 22.5 and 22.6.
36-30	Agforce	Furthermore, other concerns raised over the rehabilitation issue include: whether the relevant baseline studies have been completed for the rehabilitation projects that are required to be undertaken over the 30 year life of the mine? If so, what are the criteria used in the baseline studies and, for landholders affected by rehabilitation efforts, have they been included in discussions of criteria surrounding baseline studies for their property? Lastly, and perhaps most significantly, what provisions (contractually or otherwise) have been made in the event rehabilitation is unsuccessful or has undue impacts on landholder productivity?	Response: refer to Supplementary EIS, Volume 1, sections 6.10 and 25.4.7.
36-31	Agforce	This issue also relates to the timing of rehabilitation works. Currently, there are scant provisions to ensure rehabilitation of mining leases are completed and returned to the landowner on time. When the land is not rehabilitated in the initial time frame stated, the land owner suffers loss of income, Therefore, provisions for this mailer to be included in any compensation agreement is sought.	Response: refer to Supplementary EIS, Volume 1, section 6.10.
36-32	Agforce	5.4 Miscellaneous Issues The issue of waste has also raised concerns, Namely, whether an appropriate waste tracking system is to be established whereby regulatory agencies can track wastes from their place of generation to the place of storage, recycling, treatment or disposal? AgForce believes that this is an essential condition for the mine and condition of the land post-mining.	Response: Refer to Supplementary EIS, section 18.7.
36-33	Agforce	As the granting of a mining lease confers exclusive control of the land to the applicant, whether or not any or all of the land will actually be mined, a lease will result in significant curtailing of production of the land. Concerns from landholders are that they are unable to conduct essential management on their land in regards to management practices for pest and weed control. As such a number of issues need to be addressed, these entail: whether appropriate baseline studies have been conducted in relation to pest and weed occurrence within the MLA? Are there conditions for regulation and monitoring of known pest and weed species in the area by the WJV? What provisions have the WJV made to maintain current pest and weed management practices in the area?	Response: Refer to Supplementary EIS, section 17A.5.2.

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36-34	Agforce	Post mining land uses are proposed to generally consist of beef cattle grazing and nature conservation. The post mining land suitability classes proposed to be established for this Project include land to be returned to pre-mining land suitability class; land to be returned to Class 4 cropping or Class 3 grazing band generally be able to be used for beef cattle grazing; and reduction in land class suitability for beef cattle grazing. Although the land is considered to be acceptable for the activity for which it is considered suitable at present, for many the reduction in land class suitability will require a lower stocking rate to maintain sustainability as well as lowering the land value. Therefore, provisions for this potential loss in productive capability and land values should be included in compensation agreements or permitted for consideration under future compensation claims. Additionally, provisions in compensation claims should also be made for any required costs of diversification by property owners as a result in the reduction in land class suitability.	Response: Refer to Supplementary EIS, Volume 1, sections 6.10, 9.5.6, 9.5.7, 9.6.5, 9.6.8, 22.5 and 22.6.
36-35	Agforce	Underlying all of AgForce's policies surrounding natural resource management are the principles that: • Environmental conservation and primary production are compatible activities; • Regional planning is required to address diverse social, cultural, environmental and economic issues; and • A policy framework that supports ecologically sustainable management and development is required. In relation to mining, our primary aim is that relationships with landholders are given the due consideration they deserve. This includes, but is not limited to appropriate consultation in relation to information sharing and project management, as well as the matter of compensation given the fair and equitable deliberation it deserves. Thus, AgForce believes that the WJVs Integrated EIS Summary is a significant opportunity to address the above issues to better achieve a balance between responsible environmental management integrated with sustainable agricultural production whilst ensuring equity for all stakeholders.	Response: Refer to Supplementary EIS, Volume 1, section 21.8.
36-1	Agforce	AgForce Queensland welcomes the opportunity to comment on the Wandoan Coal Project, Environment Impact Statement and supports the Wandoan Joint Venture (hereafter referred to as the WJV) for taking a thorough and comprehensive approach to its environmental and stakeholder responsibilities. However having said this, there are a number of points of issue that we feel need to be addressed to better achieve a more fair and equitable outcome for landholders and associated community stakeholders in the region. The points of concern relate to various operational areas of the Project, primarily in relation to how they impact property owners in the region. We feel these points need to be urgently addressed to mitigate the various concerns landowners in the region are experiencing. A good relationship between the WJV, its proponents, the land owners and community stakeholders is essential for the successful operation of the Project. As such, we have outlined the various areas of concern below that we feel require the greatest attention.	Noted
37-1	[redacted]	I wish to make comment on the SOCIAL IMPACT of the Wandoan Coal Project. The property I own along with my husband is to be purchased for this project, along with another thirty or more properties. The families on these properties will have to relocate, Some will be able to relocate locally. but most will have to move out of the district. This will be a great loss to the District of Wandoan. A large area is being affected by the mine and the mine plan will most likely change. With the current global financial crisis, a majority of the mine plan may even be put on hold for a very long term or mined at minimal capacity. Xstrata is offering to lease properties back to affected landowners until the end of 2009 and then maybe until June 2011 on three months notice. After this Xstrata wish to run their own cattle on the country (which is highly regarded cattle fattening country, the best in Australia).	Noted
37-2		I believe your department should stipulate as a condition of the mining lease that affected landowners be allowed to lease their land back until mining activities begin on their land. This would allow people to stay in the district for as long as possible and a gradual decline in the Wandoan rural population instead of a sudden drop. In a 5km radius around our property there are 38 men, women and children that will have to move off eight properties. We the property owners who don't want to leave our land should be allowed to use it for as long as possible, and not have the mining company who is taking us over use it for the same purpose as we do. Your favourable consideration of my submission would be appreciated.	Response: Refer to Supplementary EIS Volume 1, section 6.10.
38-1	Queensland Conservation	Queensland Conservation (QCC) objects to the development of the Wandoan mine on the grounds that it will significantly add to global and domestic greenhouse gas emissions. At a time of growing concern and recognition of the impacts of greenhouse gas emissions, why is a development being proposed which will add to global emissions? According to the EIS the project will contribute over 49 MT C02-e to global emissions per year. By way of comparison, Australia's total annual emissions are 576 MT per year. (AGO Inventory 2006)	Noted
38-2	Queensland Conservation	Queensland Conservation takes the view that no new coal mines should be approved unless it can demonstrate climate (or carbon) neutrality. This requirement applies to the emissions from the use of the coal, fugitive emissions, the mine operations and transport of the resource (Scope 1, 2 and 3 emissions). The EIS fails to demonstrate that this mine will achieve climate neutrality for either Scope 1 and 2 or Scope 3 emissions. Under these circumstances we believe that this project should not be approved.	Noted
39-1	Queensland Transport (now Department of Transport and Main Roads)	Issue: Second last paragraph — The Surat Basin Railway EIS was lodged with the Coordinator-General on 25 November 2008. Solution: Amend paragraph by deleting the second last sentence and insert the following sentence: The Surat Basin Railway (SBR) EIS was lodged with the Coordinator-General on 25 November 2008, and the SBR project will have a construction phase timing similar to that of the Wandoan Coal Project.	Response: Refer to Supplementar EIS Volume 1, section 2.17.1
39-2	Queensland Transport (now Department of Transport and Main Roads)	Issue: First sentence (second paragraph) — The nominal capacity rating of RG Tanna Coal Terminal is quoted in the Gladstone Ports Corporation Annual Report 2007-08 as 70Mtpa (not 67Mtpa) Solution: Amend nominal capacity rating to 70Mtpa.	Response: Refer to Supplementary EIS Volume 1, section 6.5.3
39-3	Queensland Transport (now Department of Transport and Main Roads)	Issue: The improved management of coal dust emissions along all coal transport corridors in Central Queensland is a high priority for the Queensland Government. As a reflection of this priority, in 2007 the Environmental Protection Agency (Qld), requested that QR Limited (QR) undertake an Environmental Evaluation of the impact of coal dust from trains in Central Queensland. This Environmental Evaluation has now been completed and the evaluation report has recommended a number of dust mitigation measures for implementing including: -The use of spray-on chemical dust suppressants on loaded coal wagons; -The installation of improved coal-train loading infrastructure at coal mines (to control over-leading and minimise spillage of parasitic coal onto sills and bogies during loading); and -Improved load profiling systems to create a more streamlined and consistent surface of coal in each wagon.	Response: Refer to Supplementary EIS Volume 1, section 13.6.2
39-3	Queensland Transport (now Department of Transport and Main Roads)	The EPA has accepted the Environmental Evaluation report as meeting its requirements and requested that QR prepare a Transitional Environmental Program for implementing the recommendations of the report. The Transitional TE Environmental Program outlines short, medium and long-term mitigation methods for improved coal dust management, and is to be further developed in a QR Coal Dust Management Plan (CDMP) for completion by December 2000. To ensure that all relevant coal transport related dust mitigation measures are implemented at the Wandoan Coal Project and on the associated Surat Basin Railway, the proponent should consult with QR Limited's QR Network Division to determine the likely requirements for new coal-loading facilities, load controls and spray-on coal dust suppressant systems as a result of the implementation of the Transitional Environmental Program.	Response: Refer to Supplementary EIS Volume 1, section 13.6.2
39-4	Queensland Transport (now Department of Transport and Main Roads)	Enquiries regarding the timing and implementation of the Transitional Environmental Program should be directed to: Graham Stockwell Project Manager Coal Loss Management Project QR Network Telephone: (07) 323.5 5620 E-mail: graham.stockwell@qr.com.au	Response: Refer to Supplementary EIS Volume 1, section 13.6.2
39-5	Queensland Transport (now Department of Transport and Main Roads)	To ensure that all relevant coal transport related dust mitigation measures are implemented at the Wandoan Coal Project and on the associated Surat Basin Railway, the proponent should consult with QR Limited's QR Network Division to determine the likely requirements for new coal-loading facilities, load controls and spray-on coal dust suppressant systems as a result of the implementation of the Transitional Environmental Program.	Response: Refer to Supplementary EIS Volume 1, section 13.6.2
39-6	Queensland Transport (now Department of Transport and Main Roads)	Issue: Chapter 6. It is noted QT will be consulted on the location and operation of any new air strip or on the details of upgrades to the existing Wandoan air strip if that is the preferred option It is also noted that this facility would be available to the public. Solution: It is a condition of the approval that QT be consulted in relation of the selection of the preferred site for any proposed air strip and/or any proposed upgrade of the Wandoan strip.	Response: Refer to Supplementary EIS Volume 1, section 6.6.4.
39-7	Queensland Transport (now Department of Transport and Main Roads)	Paragraph 3 contains proposed elements of the proactive management plan. Current dot points 6 and 7 are commendable and anticipate some of the requirements of QR Network's Coal Dust Management Plan. However this section should be enhanced (to properly convey the full set of measures used to reduce coal dust during transit), by inclusion of the following measures to be inserted after current dot-point 5.	Response: Refer to Supplementary EIS Volume 1, section 13.6.2
39-7	Queensland Transport (now Department of Transport and Main Roads)	The list of mitigation measures should be expanded to include the measures typically already in place at mines that wash their coal, including existing coal train wagon loading control measures such as: • product coal supplied for rail transport will be washed in the CHPP Plant to remove coal fines and other fine coal particles. • product coal supplied for coal transport will have a coal-surface water content designed to reduce dust emissions during rail transport. • the coal train load-out facility will include over-loading controls designed to prevent wagon overloading arid minimise the loss of coal during transit. • the surface of the loaded coal in wagons will be profiled to achieve a flat 'garden bed' shape providing a consistent streamlined surface which reduces dust generation.	Response: Refer to Supplementary EIS Volume 1, section 13.6.2

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39-7	Queensland Transport (now Department of Transport and Main Roads)	The second component of the current dot-point six: "...and a surface treatment will be applied to minimise coal dust emissions during transit", should be separated to become a new dot-point in its own tight and described more fully to better convey its beneficial affects. Our suggested revised dot point should follow on from the dot points above and comprise as follows: The surface of the coal load will be treated by the application of an environmentally-friendly spray-on dust suppressant that binds the surface of the coal load to minimise dust emissions during transit. Recommended solution: See proposed enhanced description and dot-point provided in column 2. Any further addendum to the EIS should include a consideration of these measures.	Response: Refer to Supplementary EIS Volume 1, section 13.6.2
39-8	Queensland Transport (now Department of Transport and Main Roads)	28 Summary of Commitments and Mitigation Measures, Air Quality Chapter 13 (page 28-11). Consistent with our requested amendments under the above section: Air Quality 13.6.2 Operations - Proactive / predictive air quality management, we request that under the Commitments column another heading be inserted after 'Operational Controls", namely: Rail Transport Controls The following rail transport control measures will be implemented: > product coal supplied for rail transport will be washed in the CHPP plant to remove coal fines and other fine coal particles. > product coal supplied for coal transport will have a coal-surface water content designed to reduce dust emissions during rail transport.	Response: Refer to Supplementary EIS Volume 1, section **28.??**
39-8	Queensland Transport (now Department of Transport and Main Roads)	> the coal train load-out facility will include over-loading controls designed to prevent wagon overloading and minimise the loss of coal during transit. > the surface of the loaded coal in wagons will be profiled to achieve a flat "garden bed" shape providing a consistent streamlined surface which reduces dust generation. The surface of the coal load will be treated by the application of an environmentally-friendly spray-on dust suppressant that binds the surface of the coal load to minimise dust emissions during transit. Proposed solution is outlined in the column 2. Any further addendum to the EIS should include a consideration of these measures and additional commitments.	Response: Refer to Supplementary EIS Volume 1, Chapter 28.
39-9	Queensland Transport (now Department of Transport and Main Roads)	Page 4 contains Figure 1: The raised Glebe Weir inundation area and pipeline route . This map should be enhanced by the inclusion of the proposed route/s for the Surat Basin Railway. For information, the Surat Basin Railway EIS was lodged with the Coordinator-General on 25 November 2008.	Response: Refer to Supplementary EIS Volume 4, section 1.1
39-10	Queensland Transport (now Department of Transport and Main Roads)	The Executive Summary notes that an appropriate fatigue management system should be implemented to ensure the safety of the workforce and other road users. QT should be consulted in the development of this approach. A fatigue management system to cover both mine construction and operation phases be required as a condition of approval.	Response: Refer to Supplementary EIS Volume 1, section 24.6.4.
39-11	Queensland Transport (now Department of Transport and Main Roads)	This section states that no public transport services exist in the area surrounding the project. it should be noted that Kynoch Coaches operate a service 3 times a week between Toowoomba and Rockhampton via Miles, Wandoan and Taroom. The service stops at the Wandoan BP Service Station.	Response: Refer to Supplementary EIS Volume 1, section 12.3.1.
39-12	Queensland Transport (now Department of Transport and Main Roads)	Mining operations of this scope are likely to require 'a large number of over-mass over-dimensional loads. Such loads impact on transport infrastructure, the efficiency of the network and the safety of the transport system The study does not appear to indicate the likely number of such loads, the likely or preferred origin and destination or routes or means of mitigating the impact of these loads. It is recommended that further detail be provided on: the likely number of such loads, the likely and/or preferred origin and destination of these loads, routes to be utilised and the means of mitigating the impact of these loads on the transport network.	Response: Refer to Supplementary EIS Volume 1, section 12.4.1.
39-12	Queensland Transport (now Department of Transport and Main Roads)	One of the project commitments is that WJV will develop a Traffic Management Plan. QT has responsibilities for road safety and needs to be consulted in the development of such a plan. One area of concern relates to heavy vehicle movements during school bus operating hours. Solution: A Traffic Managment Plan be developed in consultation with QT, MR and relevant local governments and required as a condition of approval. This should cover both the mine construction and operation phases.	Response: Refer to Supplementary EIS Volume 1, section 12.7.1.
39-13	Queensland Transport (now Department of Transport and Main Roads)	A number of references are made in the study to the requirements of legislation (such as approvals to cross railways and so on). Some legislation was not mentioned for example the Transport Operations (Road use Management — Dangerous Goods) Regulation 2008 and the Transport Infrastructure (Dangerous Goods by Rail) Regulation 2008. Clearly legislative requirements will need to be met. Note that legislative requirements need to be met pursuant to the Transport Infrastructure Act 1994 and Regulations and the Transport (Transport Operations Road Use Management) Act 1995 and Regulations.	Response: Refer to Supplementary EIS Volume 1, section 23.2.1.
39-14	Queensland Transport (now Department of Transport and Main Roads)	A key concern from both road safety and environmental sustainability perspectives is the potential for large numbers of private motor vehicles travelling to and from, site, The concerns are raised for both the construction phase and the operational phase. The study notes that transport of the mine workforce will be via, fly in fly out or by bus transportation from major centres. This would minimise the need for private vehicle usage. However, in the construction phase this option is not discussed. The EIS refers to 700 workers (460 private vehicle) trips to/from the project site every 10 days. This suggests that there is more than enough capacity to justify a bus service to cut down on road safety issues arising from fatigued workers and the environmental impacts and cost of such private vehicle usage. It is interesting that this option is considered for the construction of the Glebe Weir (see below) but apparently not for the construction of the mine.	Response: Refer to Supplementary EIS Volume 1, section 12.4.1.
39-14	Queensland Transport (now Department of Transport and Main Roads)	(Similarly, Section 124.2 refers to the worst case scenario for employee transport as being coach transport. A worse scenario would be 844 private vehicles).	Response: Refer to Supplementary EIS Volume 1, section 12.4.1.
39-15	Queensland Transport (now Department of Transport and Main Roads)	The provision of bus services by the company to transport workers both during the construction phase and the operations phase be a requirement of the approval.	Response: Refer to Supplementary EIS Volume 1, section 12.4.1.
39-16	Queensland Transport (now Department of Transport and Main Roads)	As per the above issue relating to the transportation of construction workers, bus transport should be utilised where significant numbers of workers for the Glebe weir construction need to be transported to and from the site. The provision of bus services by the company to transport workers during the construction phase of the Glebe weir be a requirement of the approval.	Response: Refer to Supplementary EIS Volume 4, section 9.1.1
39-17	Queensland Transport (now Department of Transport and Main Roads)	The IAS for the Glebe Weir option indicates that the boat ramp will need to be upgraded. It should be clarified that costs associated with any upgrade or relocation of (lie boat ramp will rest with the proponent. The boat ramp design, construction and operation will need to be to standards approved by QT. Before any work is considered the Manager (Planning & infrastructure) will need to he to contacted. His details are as follows; Tim Griffin, Manager (Planning & Infrastructure) P0 Box 5096 Central Qld Mail Centre 4702. Ph 07 4931 1645.	Response: Refer to Supplementary EIS Volume 4, section 7.2.1
39-18	Queensland Transport (now Department of Transport and Main Roads)	It is recommended that a condition of approval be that any upgrade or relocation of the boat ramp be at the cost of the proponent and carried out to the standards required by QT	Response: Refer to Supplementary EIS Volume 4, section 7.2.1
40-1	Dalby Regional Council (now Western Downs Regional Council)	Reference is made to the detailed Environmental Impact Statement documents released on the above project in December 2008. Dalby Regional Council acknowledges the extensive amount of work and detail provided by the project proponents in accordance with the Terms of Reference developed by the Department for the project. The Wandoan Joint Venture (WJV) project will have many positive impacts on the economy of the Dalby Regional Council area, the State of Queensland and Australia. However, it is acknowledged that the project will also have a considerable number of negative impacts for the existing local community to the extent that the socio-economy of the Wandoan district will be altered for the future by this project and other resource development projects in the Wandoan/Miles districts and the Western Downs. Therefore, Dalby Regional Council wish to support the project as a positive for the whole Western Downs region embracing the improvements to the economy, while urging governments and the project proponents to minimise the negative impacts on the communities and residents involved or adjacent. At this stage, Dalby Regional Council would like to bring to the attention of the Coordinator General and the project proponents a number of concerns that the EIS raises within the local and regional communities. Reference is made to the Integrated Environmental Impact Statement Summary:-	Noted
40-2	Dalby Regional Council (now Western Downs Regional Council)	8.1.3 Construction Workforce Accommodation The workforce accommodation facilities to cater for 1,425 personnel are proposed to be constructed adjacent to the mining lease approximately 7 — 8 kilometres from Wandoan. The local community is concerned that this location would create an us and them situation, suggesting that for the integration of the existing community and the new mining community, preference would be for the camp accommodation to be located adjacent to the existing Wandoan township to foster integration as a one community for Wandoan.	Response: Refer to EIS Volume 1, Chapter 2 Project Need and Alternatives, section 2.14.

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40-3	Dalby Regional Council (now Western Downs Regional Council)	Dalby Regional Council, would like to support this development for the integrated community and advise the Department and the project proponents that establishing Mining or Energy ventures on the Western Downs is different to more remote centres as there are well established communities currently existing in these areas, whereas in more remote communities there are minimal existing residents. Council would support any proposals to integrate the mining communities into the local infrastructure.	Response: Refer to EIS Volume 1, Chapter 2 Project Need and Alternatives, section 2.14.
40-4	Dalby Regional Council (now Western Downs Regional Council)	Construction Workforce: This issue has required Council to summarise the Social Impact of Mining on the Wandoan Community as follows: Mining activities has the potential to bring long term economic benefits to the Wandoan area, increased employment opportunities (both directly and supporting industries), broaden the local skills base and has the potential to contribute directly and indirectly to improved infrastructure, facilities and services. Social impacts on the Wandoan community as a result of mining activity includes any changes in the ways in which people live, work, play, relate to one another, organise to meet their needs, and generally cope as members of society. This includes cultural impacts, norms, values and beliefs. Whilst the nature and magnitude of the impacts of the mining activities differ it is the significant changes in population that will impact the most on the Wandoan community. It is anticipated the population of the township of Wandoan will double (approximately 800) combined with the increase in population in the catchment area as a result of the workforce accommodation.	Response: Refer to EIS Volume 1, Chapter 21 Social, sections 21.6 and 21.8.
40-4	Dalby Regional Council (now Western Downs Regional Council)	It is this significant population change that has the potential to obliterate the social fabric of the community and its agricultural heritage. Whilst there will be direct negative impacts from mining activity including vibration, dust, noise, light, traffic, occupational health and safety, other negative mine impacts on the community include:- • Time rosters — Health, family life, club/volunteerism, schools (potential decline in enrolments), sense of community, lost business opportunities, road safety • Itinerant work population — Fear of crime/safety, loss of community, increased demand for voluntary services Increased population impacting on Health Facilities and services Increased population impacting on the Ambulance service — Increased population impacting on Police Facilities and services	Response: Refer to the Supplementary EIS Volume 1, Chapter 21 Social, section 21.8.
40-4	Dalby Regional Council (now Western Downs Regional Council)	Increased population impacting on sport, recreational, community and cultural facilities • Housing cost and availability — Largest impact on those who don't work in mining industry, rental prices increase • Social cost — Potential for a social and income divide to develop between mining and non mining families • Labour availability — Shortage of skilled people in the area as a result of the high wages mines pay	Response: Refer to the Supplementary EIS Volume 1, Chapter 21 Social, section 21.8.
40-5	Dalby Regional Council (now Western Downs Regional Council)	There is a need to formalise a Social Impact Monitoring and Management Strategy for the Wandoan area. This strategy will identify the community issues and impacts of most relevance to the site; detail a process for monitoring and reporting on progress in dealing with these impacts; and identify actions that can be taken at site level that will address concerns raised by stakeholders and contribute to the positive outcomes for the community. Particular aspects would be: 1 Ongoing community engagement and communication processes 2. Appropriate follow up to issues raised by community 3. Monitoring and reporting on performance in this area 4 Procedures for allocating donations and in-kind support for community groups eg. Community Benefit Fund The development of an impact monitoring framework should be part of a broader engagement strategy, rather than just an end in itself. In developing these strategies, the WJV needs to actively engage with the Wandoan Community and Dalby Regional Council in order to ensure that monitoring and management activities are focused on issues of concern to local stakeholders. Involving the community also gives legitimacy to the process by communicating to people that their views matter. Such as regular meetings with WJV Reps, Dalby Regional Council and Wandoan Community Liaison Group with the stated aim of working together for the benefit of the overall community.	Response: Refer to the Supplementary EIS Volume 1, Chapter 21 Social, section 21.8.
40-6	Dalby Regional Council (now Western Downs Regional Council)	Potable Water Supply A review of Proposed Water Supply options to date bring Council to the following requirements: The allocations and capacities of the existing town bores and treatment plant be increased to ensure that the existing surplus margins are retained as a minimum when assessing maximum requirements • The predicted consumption figures be reviewed in consultation with Dalby Regional Council. Council's position is that the estimated consumption figures for those who will be residing in the town are understated in the EIS document • The design of the new supply and treatment plant facilities be undertaken in consultation with and to the satisfaction and approval of Dalby Regional Council. • The Wandoan town supply is not to be used for construction purposes. Dalby Regional Council is also concerned that use of any GAB water for construction purposes could draw too heavily on the available GAB water, and deplete the supply in the Wandoan town water supply system.	Response: Refer to the Supplementary EIS Volume 1, section 11.4.1.
40-7	Dalby Regional Council (now Western Downs Regional Council)	Sewerage • The sewerage network and treatment plant be augmented as necessary to ensure that existing surplus capacity margins are retained as a minimum when assessing maximum requirements. • The design of the new treatment plant facilities be undertaken in consultation with, and to the satisfaction and approval of Dalby Regional Council.	Response: Refer to the Supplementary EIS Volume 1, sections 6.1, 11.2.7, 11.4.2 and 11.6.7.
40-8	Dalby Regional Council (now Western Downs Regional Council)	Construction Water Supply Dalby Regional Council is not convinced that the GAB bore options from land owned by the WJV or the upgraded town bores should be used for construction. The reason for this opinion is that the predicted consumption figures should be reviewed in consultation with Dalby Regional Council as Council believes that the estimate usage for those residing in Wandoan permanently are underestimated. Dalby Regional Council would support the development of CSM water supply pipelines or the Glebe Weir option for the construction water supply. Dalby Regional Council is of the opinion that GAB water for mine construction and operation purposes should be only at times of emergency to back up other supplies due to the negative impact an the requirement for GAB water sources to support human beings and livestock in the mine area. Council believes that there is ample CSM alternatives available and these options should be advanced.	Response: Refer to the Supplementary EIS Volume 1, section 11.4.3.
40-9	Dalby Regional Council (now Western Downs Regional Council)	Frank Creek Pit The Wandoan community are of the opinion that the Frank Creek Pit should not be mined due to the location to the Wandoan township for the following reasons: The mine face will be 500 metres from the Aged Care Accommodation, Cultural Facilities and the Wandoan Commercial Centre. • This location raises issues of dust, noise, light, odour, which will cause social disruption and have negative affects on the health of the population. Comments on each as follows:-	Response: Refer to Supplementary EIS Volume 1, Chapter 6 Project Operations, section 6.3.2.
40-10	Dalby Regional Council (now Western Downs Regional Council)	Light There has been community concern raised regarding the potential light spillage from the operation of the mine. It has been observed in other mining areas that evening activities are characterised by a 'glow', although most mines do not appear to be so close to established residential communities. The EIS appears to conclude that there will be high impacts as a result of the mine, especially on the local community. The example of the evening glow is illustrated in Figures 19 - 10a - V1.3, 19 10b - V1.3, and 19 - 10c - V1.3, however, this is reported to be only the glow on a cloudless or moonless night. It would be expected that any light impacts would be more significant on a cloudy night or under the full moon. These figures may not therefore represent the real impact of light on the community.	Response: Refer to Supplementary EIS Volume 1, Chapter 19 Visual Amenity, sections 19.2.5, 19.5 and 19.6.3.
40-11	Dalby Regional Council (now Western Downs Regional Council)	Air The extent of the dust being generated by the project appears to be well documented in the EIS as a measure over time. The complaints process and Air Quality Management Plan that are both yet to be prepared must include measures that will include the retrofitting of devices to remove excessive dust from properties. This is particularly important in rural towns, where there is wide use of evaporative air conditioning and rainwater for use as drinking water, both may be required to be protected against excessive dust.	Response: Refer to Supplementary EIS, Volume 1, section 13.6.2

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40-12	Dalby Regional Council (now Western Downs Regional Council)	Noise The noise emitted by the project appears to largely comply with the EPA's Planning guidelines, although this does identify some higher noise levels within reasonable proximity to the town. The modelling also identifies that traffic travelling on the Leichhardt Highway creates significant noise, however, this is infrequent during the night and is short in duration. The activities on site are more constant, and may have the potential to impact on residents sleep patterns. The noise management plan should include measures that will ensure that any person affected by noise can have their dwelling retrofitted by noise reducing devices, such as insulations. • 500 metres is insufficient buffer zone between Wandoan township and the WJV Project and the Department of Infrastructure and Planning should review the requirements for buffers between coal mines and townships if this is regarded as sufficient. Dalby Regional Council supports the communities concern with regards to the Frank Creek Pit and would request that the timing of the commencement of the Frank Creek Pit be delayed and alternate resource supplies be sourced.	Response: Refer to EIS Volume 1, section 15.2.1 and Technical Report TR15-1-V1.5, section 8.4; and Supplementary EIS, Volume 1, section 6.3.2.
40-13	Dalby Regional Council (now Western Downs Regional Council)	Closing of Roads and alternate routes Dalby Regional Council requires that the WJV are to ensure that all road closures resulting in alternate routes for through and local traffic maintain at least the same level of service in terms of standard of road construction and all weather access without additional unnecessary detours under a formal Infrastructure Agreement with Dalby Regional Council following consultation with road users.	Response: Refer to Supplementary EIS, Volume 1, Chapter 6, section 6.6.2
40-14	Dalby Regional Council (now Western Downs Regional Council)	• Council Road subject to construction and operational traffic WJV are to enter into an Infrastructure Agreement with Dalby Regional Council to be responsible for funding any required upgrading or additional maintenance required for increased traffic during the construction phase. Once the mining operations have commenced any additional maintenance required on Council roads by mine operational traffic shall be subject to a Maintenance Funding Agreement with Dalby Regional Council.	Response: Refer to Supplementary EIS, Volume 1, Chapter 6, section 6.6.2
40-15	Dalby Regional Council (now Western Downs Regional Council)	• Road Construction Materials WJV is to demonstrate to Dalby Regional Council that its sourcing of road construction materials for mining construction is not to have a detrimental effect on Dalby Regional Council road construction materials supply to meet Councils ongoing commitments in the Wandoan area.	Response: Refer to Supplementary EIS, Volume 1, Chapter 6, section 6.6.2
40-16	Dalby Regional Council (now Western Downs Regional Council)	8.2.3 Infrastructure Outside the MLA Areas Dalby Regional Council comments on water supply, accommodation and waste water are as per previously stated.	Noted
40-17	Dalby Regional Council (now Western Downs Regional Council)	Town Based Accommodation Dalby Regional Council has concern with regards to the number of personnel estimated to reside in the townships on the Western Downs in the Dalby Regional Council region with the following comments and reasons: The percentage of persons who will live in Wandoan township is understated. • Other centres in the Dalby Regional Council area have not been accounted for in referencing (ie. Dalby and Chinchilla) • The impact on Miles township is understated • Estimate of fly in — fly out operations is overstated	Response: Refer to Supplementary EIS, Volume 1, sections 6.6.4, 21.6 and 21.8.
40-17	Dalby Regional Council (now Western Downs Regional Council)	• Dalby Regional Council requires a Living Away from Home Allowance for those workers who choose to live permanently in the Dalby Regional Council region and Taroom area • Dalby Regional Council supports the development of a Regional Airstrip in the Dalby Regional Council area that will service the WJV, other mining/energy projects and the general public with RPT services or similar • The Councils preference for an additional airstrip to service the mine should be located as near as possible to the Wandoan township. The primary focus should be on a publicly avoidable airstrip at Wandoan. No matter where the airstrip is eventually located (on land owned by WJV or on public lands) the airstrip should be available for use by the general public. • Daily bus services between centres in the Dalby Regional Council region to service the mine with local workers (eg. Dalby, Chinchilla, Miles, Tara and Condamine etc) • The housing of 35 personnel in Wandoan is underestimated and Dalby Regional Council would estimate a doubling of this estimate.	Response: Refer to Supplementary EIS, Volume 1, sections 6.6.4, 21.6 and 21.8.
40-18	Dalby Regional Council (now Western Downs Regional Council)	Municipal Waste The waste management chapters appears only to include very general descriptions of the development, and does not include any comment on the exact volumes or masses of waste being generated as a result of the facility. Although the EIS advises that an agreement will be made with the Dalby Regional Council for waste disposal, it is difficult to fully assess the EIS without such detail. It is noted that a Project Waste Management Plan (PWMP) will be developed for the project, it is recommended that such a PWMP must be to the satisfaction of and approved by the Dalby Regional Council before any EPA approvals.	Response: Refer to Supplementary EIS, Volume 1, sections 6.7.1, 18.5.2 and 18.5.3.
40-19	Dalby Regional Council (now Western Downs Regional Council)	Power Supply for Mine — Gas Pipeline Base load total-site-supply-on site gas fired power station. Under the power station and gas supply options any extension of a gas supply to the mine site should include a gas pipeline to Wandoan township for Industrial and Residential purposes	Response: refer to Supplementary EIS, section 6.6.9.
40-20	Dalby Regional Council (now Western Downs Regional Council)	8.2.4 Sustainability Dalby Regional Council request that worlds best practice options for Rehabilitation be implemented by the Environmental Protection Agency on the project.	Response: Refer to EIS Volume 1 Chapter 25 and Supplementary EIS, Volume 1, Chapter 25.
40-21	Dalby Regional Council (now Western Downs Regional Council)	9. Consultation Process Cultural Heritage Plan Development of a Cultural Heritage Management Plan in consultation with the Iman People #2 has been reported, however there is no reference to the development or recording of European Cultural Heritage. Dalby Regional Council requests that prior to the commencement of any removal of landholders from existing holdings or commencement of construction or mining that a full History of the Wandoan district be agreed with Dalby Regional Council at the cost of the WJV for a comprehensive record of the existing cultural history of the district prior to the changing face of Wandoan. Dalby Regional Council supports the local communities endeavours that the WJV shall preserve the Iconic Assets of the land and buildings where possible in conjunction with Dalby Regional Council and community.	Response: Refer to Supplementary EIS, Volume 1, Chapter 20B, section 20B.6, and Volume 2, Chapter 20B, section 20B.6.
40-22	Dalby Regional Council (now Western Downs Regional Council)	10.2 Land Use and Tenure The document provides details on how the WJV will acquire land for the MLA development, however there is minimal reference to how or when the rehabilitated land will be released for rural/agricultural pursuits.	Response: Refer to Supplementary EIS Volume 1, sections 6.10 and 25.4.7.
40-23	Dalby Regional Council (now Western Downs Regional Council)	10.17.1 MLA Areas The EIS does not provide for Affordable Housing proposals within the region as a result of the impacts of increased rents on residents in normal jobs (ie. other than mining). Major projects push up rent prices. Dalby Regional Council would be supportive of a package to develop Affordable Housing in all centres affect by the WJV project.	Response: Refer to the Supplementary EIS Volume 1, Chapter 21 Social, section 21.8.
40-24	Dalby Regional Council (now Western Downs Regional Council)	Planning and Development Dalby Regional Council believe that the WJV will have considerable impact on the future development of Wandoan and wish to bring the tenure of land surrounding Wandoan to the Coordinators General attention. There are considerable parcels of state owned land within and adjacent to the Wandoan township and Council would request that the Department of Infrastructure and Planning and Department of Natural Resources assist Council with the Native Title clearance and purchase of this land for residential development.	Noted
40-25	Dalby Regional Council (now Western Downs Regional Council)	Also, there is considerable Q Rail corridor in the commercial sector of Wandoan that would be required for Commercial Development and Council would require the assistance of the Coordinator General and/or the Department of Infrastructure and Planning to expedite the release of this land either to Council or the general public for commercial development.	Noted
40-26	Dalby Regional Council (now Western Downs Regional Council)	Cemetery A Management Plan needs to be prepared, in conjunction with Dalby Regional Council, to address the issues of "noise and dust abatement" during funeral services at the Wandoan Cemetery. It would be generally unacceptable to have funeral services disrupted due to blasting operations and/or loud noises and dust from plant/machinery working in close proximity to the Cemetery. A "protocol" needs to be developed between Dalby Regional Council and WJV on how these issues will be addressed so as to cause minimal disruption to funeral services at the Cemetery.	Response: Refer to the Supplementary EIS Volume 1, sections 15.6.2 and 16.6.2.
40-27	Dalby Regional Council (now Western Downs Regional Council)	Power/Telephone to these affected by Services from Within MLA Landowners outside the MLA who are serviced by infrastructure across the MLA area require the level of service to be increased through the development process.	Response: Refer to Supplementary EIS Volume 1, sections 6.6.8 and 6.6.9.

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40-28	Dalby Regional Council (now Western Downs Regional Council)	State and Local Infrastructure The EIS refers to the development of Infrastructure Agreements and Community Benefits packages, however to date there have been minimal negotiations with Dalby Regional Council on requirements for this project and adjacent similar projects. Dalby Regional Council require the development of full detailed Infrastructure Agreements and a Community Benefit Package for State and Local Government infrastructure requirements prior to any approvals to proceed. Conclusion In conclusion the community and Council in general support the development of the Natural Resources of the region, however require maximum value adding benefit from projects and minimised impact for residents. It has been a pleasure to be provided with the opportunity to comment on the WJV EIS and Dalby Regional Council look forward to follow up megotiations on issues raised for the Supplementary EIS.	Response: Refer to the Supplementary EIS Volume 1, Chapter 21 Social, section 21.8.
41-1	Dawson Valley Development Association Inc	Complete EIS Disinterest in general community in getting involved in process unless directly affected by the project. The submitter believes that not many in the community comprehend just how much information is available about the project, through the EIS process. Suggested Solution: Perhaps none — the document is very well presented, contains an enormous amount of information and the availability of the EIS has been excellent.	Noted
41-2	Dawson Valley Development Association Inc	There are other projects such as Surat Basin Rail and Nathan Dam and Pipelines that are also reaching EIS release — people are overwhelmed with process and possible impacts on their lives. Suggested Solution: Continue the current processes as well as providing additional support to community groups to feed out information — unpaid individuals in the community do not have the time or capacity to do this unless they are extremely passionate and motivated.	Noted
41-3	Dawson Valley Development Association Inc	Advertising of this project and the EIS has not been strong outside the Surat Basin particularly further down the Dawson valley. Suggested Solution: Greater utilisation of the “Central Telegraph” newspaper.	Noted
41-4	Dawson Valley Development Association Inc	It is unclear how the decision may be made to determine which option for water supply will be used. The community downstream is concerned that Glebe weir could be raised to provide high priority water for this project only and subsequently Nathan Dam may not be built — this would not be a good outcome for irrigators or for other possible mining, industrial or community projects in the future. Suggested Solution: The reason for not including Nathan Dam is understood by the submitter (timing for approvals etc). It is not clearly understood by the community. Is it possible to have a link somehow to the Nathan EIS process? This may give clarity to the transition if Glebe is raised followed by the construction of Nathan dam.	Response: Noted and Refer to Supplementary EIS Volume 4, section 2.1
41-5	Dawson Valley Development Association Inc	It is unclear how the proposed Glebe weir raising would be handled under an amendment to the Fitzroy Basin Resource Operations Plan and also with the current Fitzroy Basin Water Resource Plan under review. Cannot find Table 3.1 Suggested Solution: Give more detail in the supplementary EIS on this process.	Response: Refer to Supplementary EIS Volume 4, section 8.1.1
41-6	Dawson Valley Development Association Inc	There has been concern expressed by the downstream irrigation community that they weren’t directly consulted in regards possible impacts from the raising of Glebe weir. Suggested Solution: This perhaps detects a flaw in the community consultation process where representatives on community liaison groups do not pass on or get the opportunity to pass on critical information. The problem also lies in the original identification of “affected persons” and “interested persons”, where it was apparently determined that there would be no impact on the WASOs of downstream users. The solution lies in identifying possible perceptions about an issue and then dealing directly with the individual or group concerned, as has happened with a lot of issues. This may be achieved by consulting with the key irrigator group in the Fitzroy region, Fitzroy Basin Food and Fibre Association inc (FBF&F) if and when the decision is made to raise the weir. FBF&F has an executive officer residing in the Dawson valley.	Response: Refer to Supplementary EIS Volume 4, section 4.2
42-1	Wildlife Queensland	I have been directed by the State Council of the Wildlife Preservation Society of Queensland (Wildlife Queensland) to forward comments on the recently released document referred to above. Wildlife Queensland is one of the most respected wildlife-focused conservation groups in Queensland. With over 3500 supporters spread across 19 branches throughout Queensland, Wildlife Queensland is a strong voice for our wildlife and its habitat. In particular the Upper Dawson Wildlife Preservation Society of Queensland Branch has a major interest in this project. Wildlife Queensland is apolitical. Our aims include; **Preserve** the flora and Fauna of Australia by all lawful means **Educate** the community in an understanding of the principles of conservation and preservation of the natural environment **Discourage** by all legal means, the possible destruction, exploitation and unnecessary development of any part of the natural environment. **Encourage** rational land use and proper land planning of existing and future development, and the use of the natural environment and its management.	Noted
42-1	Wildlife Queensland	Wildlife Queensland commends the proponents of the project to ensure Wildlife Queensland and Upper Dawson Branch were fully aware and informed about project.	Noted
42-1	Wildlife Queensland	Forwarding this submission should not be construed as Wildlife Queensland having support for this project that will have adverse effects on the environment of the region, destroy prime, productive, agricultural land and its product will impact significantly on climate change. However it would be remiss of Wildlife Queensland not to use this opportunity to endeavour to minimize impacts should this project proceed. Lack of comment on any issue should not necessarily be construed as support for the view expressed. Wildlife Queensland has limited its comments to areas in which expertise exists. There are other organizations more qualified to comment on particular aspects of this EIS.	Noted
42-3	Wildlife Queensland	General comment The documentation presented is clear, readable and well presented. The integrated Environmental Impact Statement summary is a very sound and true reflection of the comprehensive EIS. Wildlife Queensland acknowledges the detail and research in the EIS documents and based on information to hand accurately reflects current and existing knowledge. However Wildlife Queensland views differ with some of the conclusions drawn. Wildlife Queensland also does not have a detailed knowledge of the area impacted that some local enthusiasts and members of the Upper Dawson WPSQ branch possess that may bring some of the statements of the EIS into question. Furthermore while the knowledge of flora in Queensland is relatively good to very good through mapping and other studies the lack of systematic surveys of fauna through a range of differing seasons always causes concern about the fauna component of any EIS.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.3.
42-4	Wildlife Queensland	One principle that Wildlife Queensland desires to be emphasized is the need to avoid, reduce and mitigate against any environmental harm. In the conclusions (page 44, 12.1 paragraph 1) it is admitted not all adverse impacts associated with the Projects will be mitigated and that is disappointing. Economic gains are highlighted to offset this failure but Wildlife Queensland considers this to be totally inappropriate.	Noted
42-5	Wildlife Queensland	There are a number of positives and credit must be given for those. Waste management, the omission of the proposed Nathan Dam as a potential water source and cultural heritage both indigenous and non indigenous are such examples. The removal of the proposed Nathan Dam as a potential water source (it was included in the draft EIS) confirms the proponents considered submissions on the draft and by rejecting this option demonstrates clearly their concern for the impact of unnecessary infrastructure on the environment. With regard to indigenous heritage issues Wildlife Queensland strongly supports the efforts made but it is not appropriate for Wildlife Queensland to comment if the outcome is adequate and meets the needs of the Traditional Owners. There arc a number of issues associated with non indigenous culture and one of particular interest is the Stock Route. The Stock Route Network both in Queensland and New South Wales is a national icon. It has been celebrated in literature, has significant biodiversity and heritage values besides its primary purpose of accommodating the needs of travelling stock. The projects impact on this valuable asset is a concern and will need to be more than adequately addressed.	Response: Refer to Supplementary EIS Volume 1, sections 3.3.14, 6.6.2, 8.6.6, and 20B.5.2.

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42-6	Wildlife Queensland	The effort to consult interested parties and stakeholders is to be commended. Wildlife Queensland would encourage the proponents to continue liaison with local interest groups particularly the Upper Dawson WPSQ Branch. Comments will focus on issues of major concern that must be taken into consideration should the project proceed. These concerns, not necessarily listed in any priority, include: • Biodiversity and offsets policy • Waters including ground water • Climate change • Waste management • Environmental monitoring programs	Noted
42-7	Wildlife Queensland	Biodiversity and offsets policy Clearing and disturbance of vegetation on site is a major concern. Vegetation in the region is already fragmented and any further fragmentation should be avoided, reduced and mitigated. The maintenance of biodiversity and ecological processes so essential for the continued existence of our wildlife must be one of the highest priorities. Impact on endangered or of concern regional ecosystems should be avoided. It is appreciated that government offset policy and legislation permits the disturbance of such vegetation for mining and other selected industries. Should the offset policy be triggered then it should be like for like, like or better condition and it must be protected for perpetuity. In addition there must be proactive management of any offsets to ensure that predevelopment stability of the ecosystem is achieved free from weeds and feral animals. Also periodic flora and fauna surveys should be carried out to confirm management objectives are being achieved.	Response: Refer to Supplementary EIS Volume 1, section 17A.6.
42-8	Wildlife Queensland	The commitment to a target ratio of up to 3:1 in terms of vegetation protected in offsets (page 43, dot point 2 under impacts of the project on biodiversity) appears admirable at first glance but in reality the inclusion of the words “up to” could result in a totally unacceptable offset. Wildlife Queensland is of the opinion that this should be reworded by deleting the words “up to” and including the words “not less than” clarifying the commitment to an acceptable level. In most situations as a matter of last resort Wildlife Queensland prefers offsets though habitat restoration and enhancement of comparable ecosystems but this may not necessarily be the best option in this situation. The offset policy does permit the payment of funds to be purposefully directed for the benefit of conservation. Should this approach be considered by proponents, local on-ground knowledge may inform better decision making that will provide a significant positive outcome for conservation improving the environment.	Response: Refer to Supplementary EIS Volume 1, sections 17.5 and 17A.6.
42-9	Wildlife Queensland	Weeds and feral animals are probably second only to loss of habitat in threats to our biodiversity. It is apparent that practices are to be put in place to avoid the spread of weeds. There is a need to have eradication and or containment strategies activated from the initial implementation phase of this project. Fire management plans need to be developed not only to protect infrastructure but also the vegetation. Ecologically sustainable fire regimes need to be implemented as and when required.	Response: Refer to Supplementary EIS Volume 1, sections 7.8 and 17A.5.2.
42-10	Wildlife Queensland	Finally there is a concern about the decommissioning of the mine site and unnecessary or non beneficial infrastructure remaining after operations cease. While this has been addressed, Wildlife Queensland is of the opinion that the Queensland Government must have adequate financial arrangements in place with the proponents to ensure appropriate rehabilitation can occur if there is failure by the proponents to do so.	Response: Refer to Supplementary EIS, Volume 1, section 25.4.7.
42-11	Wildlife Queensland	Waters including ground waters A principle that must guide water use is that any water used must be fit for purpose and any water discharged must match background environmental standards as a minimum. In addition every effort must be made to reuse water and reduce requirements. Operational raw water supplies have been reduced to 3 potential sources- 2 coal seam methane sources and the Glebe weir option. Wildlife Queensland is totally opposed to the Glebe weir option regardless of the findings of the inquiry into the Bedford incident and other options for raising the Glebe weir. Wildlife Queensland is opposed to any waters being taken from the Dawson River system. The Dawson is part of the Fitzroy River system basin.	Response: Refer to Supplementary EIS Volume 4, sections 5.1.1 and 8.1.1
42-12	Wildlife Queensland	As the Fitzroy Basin water Resource plan is being reviewed there is no guarantee that current allocations would be carried forward. Furthermore the existing water quality standards are a major environmental concern and any reduced environmental flows would only exacerbate the situation. The Fitzroy River Basin will already be subject to reduced environmental flows through climate change impacts. Raising the Glebe weir may also impact on the critically endangered boggomoss snail, Wildlife Queensland questions the capacity to mitigate saturation or potential saturation of the boggomosses. Soakage from the water storage may alter the cluster of boggomosses just below the proposed levee. There would undoubtedly be disruptive impacts on the riverine corridors. Raising the Glebe Weir should not be an option.	Response: Refer to Supplementary EIS Volume 4, section 8.1.1
42-13	Wildlife Queensland	Wildlife Queensland supports the use of the waters associated with the Coal Seam Methane industries. These waters being produced from this every escalating industry pose a major environmental concern. Any “beneficial use” of such waters is supported provided such waters are treated fit for purpose and the resulting waste products stored so as not to cause any environmental harm. It is difficult to assess without an intermit knowledge of the regions flora and fauna as to whether the southern or western source would be preferred. Wildlife Queensland recommends that the pipeline selected should be the one that causes the least environmental harm and damage. Cost should not be the guiding factor. On ground flora and fauna studies should define the preferred option. Both types of studies are needed as habitat alone does not necessarily guarantee the presence of fauna. Advice from our local branch indicates a preference for the western pipeline.	Response: Refer to the Supplementary EIS Volume 1, section 1.2.1, and Volume 2, section 2.5.
42-14	Wildlife Queensland	Water used on site must be fit for purpose. It is essential that dust suppression is not carried out using waters high in salts and other contaminants. Such contaminants may accumulate in the soil and be leached into various catchments. The fact that the project is scheduled to operate over 30 years provides an extensive period for such accumulation to occur. Disturbance to surface and ground water flows must be avoided, reduced and mitigated against. The diversion of both Wooleebee and Mud Creeks needs to be carefully modelled and reconsidered. Extensive modelling is required to ensure the proposed channel to which these waters will be confined is more than adequate to accommodate the large volumes of water that may occur following extreme events. The outcomes of weather events are scheduled to decrease under climate change but the frequency of extreme events is predicted to increase.	Response: Refer to Supplementary EIS, Volume 1, sections 9.6.3, 10.8, 11.4.4, 11.4.5, 11.6.2, 11.6.3 and 11.6.4.
42-15	Wildlife Queensland	Flooding of the mine must be avoided. Another event such as occurred at the Ensham (sic) mine is not acceptable. Should such an event occur Wildlife Queensland would expect treatment of discharge water fit for purpose for release or match background environmental standards. Also provision needs to be made to ensure natural paths for flood flows across the flood plain For natural ecological processes to continue.	Response: Refer to Supplementary EIS Volume 1, section 11.6.
42-16	Wildlife Queensland	Wildlife Queensland has major concerns for the valuable and wildlife essential riparian tree corridors associated with the Wooleebee and Mud creeks and associated flood plains. With regard to ground water taken from adjacent property owners there is a need for make good provisions. There is also a need for make good provisions for any environmental impacts for ground water dependent ecosystems from the take or disturbance of ground waters.	Response: refer to Supplementary EIS, Volume 1, sections 10.6, 10.8 and 17A.3.
42-17	Wildlife Queensland	Climate Change It is obvious that the proponents of the project have addressed this issue in part but Wildlife Queensland considers there is a need to go further. Running of the pit must be carbon neutral. Wildlife Queensland questions that the EIS avoids, reduces and mitigates impacts on climate change from the operation of the mine and its products. Coal stock piles and wagons taking product to port must be covered to avoid coal dust leakage into the environment from both an environmental and human health perspective. There is a need to factor fugitive methane releases to the environment into consideration and address this concern.	Response: refer to Supplementary EIS, Volume 1, Chapter 13 Air Quality, section 13.6, and Chapter 14 Greenhouse Gases and Climate Change.
42-18	Wildlife Queensland	Waste Management Wildlife Queensland is supportive of the proposed waste strategy provided the management hierarchy as outlined is adhered to. Wildlife Queensland encourages the activities as outlined to be implemented as soon as practicable.	Noted
42-19	Wildlife Queensland	Environmental Monitoring programs There is a need to develop and implement a series of environmental monitoring programs during the life of the mine and for a period of time following decommissioning to ensure the objectives of the various strategies are being achieved. Such programs should include but not necessarily be limited to: • Flora and fauna surveys • Ground water monitoring • Air shed monitoring • Soil surveys Undoubtedly such activities will be detailed in the Environmental Management Plan. Such a plan must be the subject of government scrutiny and there should be an onus on the regulators to report to the public any breaches and action taken to address the matter.	Refer Supplementary EIS Volume 1, Chapter 27A
42-20	Wildlife Queensland	Conclusion Wildlife Queensland appreciates the opportunity to comment. Wildlife Queensland would prefer this project not to proceed. If however if the issues raised in this brief submission are addressed then impacts on the environment and our wildlife should be reduced.	Noted

Submission Number	Submitter	Submission	Response
43-1	[redacted]	Issue: Insufficient communication with downstream irrigators as it appears has been assumed that these stakeholders won't be impacted. Solution: If Glebe option goes ahead, irrigators must be consulted directly to discuss mitigation or planning options. Contacts should include: Fitzroy Basin Food and Fibre Assn Inc (FBF&F) - Jeanie Conachan	Noted
43-2		Conversion Ratios — medium to high priority Question the accuracy of being able to convert 12400 ML (extra capacity) to 6500 ML of high priority water (conversion ratio 1.9 times) and it would be even less than this when you take into consideration the higher seepage and storage losses that would occur with a larger storage being kept at a full capacity for longer periods of time. Why is the ratio of converting Medium A to high priority lower (3210 ML converts to 2000 ML high priority) Conversion ratio — 1.6 times. If Medium A is going to be converted to High Priority will current Medium A licence holders also be given the opportunity to convert at the same conversion ratio? Are these conversion ratios going to set a precedent for future conversions if Nathan Dam proceeds? How is Sunwater able to get considerably better conversion ratios in the Dawson than with Fairbairn Dam where the ratio is 1:3. Solution: Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS	Response: Refer to Supplementary EIS Volume 4, sections 4.2 and 8.1.3
43-3		Impact of Weir on Floods Pg 8-7 Flood Behaviour- says impact of weir will only be impact of weir will only be on minor (frequent) floods limited to the first flush of the season. In the current water year the raised weir could have a big impact on unsupplemented users there have been lots of smaller flows which are gradually meeting the environmental flow requirement of 6 days flow at 15 cumecs before water harvesting can commence. The raised weir would have captured all these smaller flows and still not overflowed meaning water harvesters would have to wait even longer to begin flood harvesting. Suggested solution: Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, section 8.1.5
43-4		Pg 8-14 Glebe Weir can run out of water prior to the end of the irrigation season. If changes to the operating strategy to keep Glebe full or near full to supply High Priority allocations in low water years you can guarantee that existing irrigators will run of water alot earlier that would be the case if current operating strategy of release water until Glebe is empty remains. This impact has not been fully assessed and compensation for existing users would need to be looked at. Suggested Solution: Assess possible impacts. Provide details of compensation if applicable. Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, section 8.1.3
43-5		Change in Operating Strategy pg 8-19 Traditionally Glebe weir has been drained from July onwards to supply existing downstream users (on average 6 out of the past 7 years there has been less than 2000ML on the 1 October). It has been indicated that Glebe will be 'weir will be full to near full more frequently'. This change in operating strategy will have a significant impact on downstream users who will no longer be able to request this water to be released. Since there has been no mention of increasing the local supply volume (LSV) at Glebe (from its current 800ML — Fitzroy ROP) does this mean that the current operating strategy will not change and if required water will be released to downstream users till Glebe reaches its LSV. Suggested Solution: Correct the anomaly if exists. Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, sections 8.1.3
43-5		Environmental Flow Release Changes Increasing the Reserve volume to 3000 ML will significantly impact the announced allocations in the early months of the water year (Oct to Jan) where reserves are currently significantly lower (1379 - 2500 ML). Increasing the local supply volumes (LSV) for Gyranda and Theodore could also impact those downstream users who in the past could have requested this water to be released to them. If Medium-A water is going to be purchased from the Theodore section and then stored in Glebe why do the LSV for Gyranda and Theodore need to be increased? Solution: Further clarification is needed to outline if the current Environmental First Post Winter Flow (6 days @ 15 cumecs) will remain if there is an alternative Environmental Flow Release Strategy introduced. In Table 8-13 it outlines that in the current ROP there is no Environmental Flow Release Strategy for Glebe or Theodore, there may not be a release strategy based on storage volumes and inflows but there is the requirement for the First Post Winter Flow before any un-supplemented water can be taken. Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, sections 8.1.3
43-5		Compliance with WASO's Pg 8-22'The reliability of the existing high priority users in Upper Dawson sub-scheme remain at 100%. A lower reliability, given to the proposed Wandoan Coal high priority allocation to ensure the existing high priority users are not affected; and How is it possible to have differing reliabilities for high priority water? Are separate classes for High Priority similar to Medium A & Medium going to be created. Does this mean existing high priority uses will have their allocations met before high priority is allocated to Wandoan Coal Project? Solution: Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS	Response: Refer to Supplementary EIS Volume 4, sections 8.1.3
43-6		Table 8-15 Mandatory Medium Priority WASOs for Upper and Lower Dawson WASOs may be reduced Monthly performance may change Suggested Solution: Each individual month needs to be shown because overall the median monthly reliability may stay the same or improve but reliability could be significantly worse in the first few months of the water year and significantly better in the last few months of the water year. Timing of reliability could have a big impact on the ability of existing water users to operate their business particularly if they are focused on summer cropping.	Response: Refer to Supplementary EIS Volume 4, sections 8.1.3
43-7		Unsupplemented Water Users Table 8-16 Comparison of Unsupplemented Water Performance Indicators. Un-supplemented water users are split into 7 zones according to Table 1 - Attachment 5.1 B in the Fitzroy ROP. Within each zones users are entitled to exactly the same number of water harvesting days. Therefore Table 8-16 should show the impact within each zone and not at each IQQM node. Given that the proponent has mentioned compensation for lost water harvesting days and the possibility of providing medium security water instead, has this extra requirement for medium security water been included in the modelling? Suggested Solution: This table needs to show the impact that the weir will have on both 15 and 30 cumec licence holders as the impact will be different for both of them. Table 8-16 to show the impact within each zone and not at each IQQM node. Include methodology for providing compensation Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, sections 8.1.5
43-8		Construction Stage Hydrological Impacts There will be a temporary loss of storage during the construction. Current users should be compensated if there is a reduction in reliability of supply during the construction process. Even a small reduction of 2500 ML (5 % of missed allocation) could have a big impact on users if that extra 5% was enough for them to finish irrigating their crop. If rather than a bladder, steel shutter gates need to be installed the impact on the loss of potential water for downstream users has not been assessed. Suggested Solution: Include methodology for providing compensation Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, sections 8.1.9
43-9		Operation Phase — During the first filling of the raised weir Impact if weir + bladder does not fill quickly In years of low inflow particularly if Glebe is empty at the end of the previous water year it may take a significant amount of time until the weir + bladder is full. If this event does occur the impact of allocating 8500 ML of High Priority water at the start of the water year will have a significant impact on existing users. If Wandoan Coal does not need the full 8500ML in the first year of operation is the full allocation going to be provided or just the minimum that they require (ie 2000ML) as this would go some way in reducing the transitional impact. Suggested Solution: Provide better transitional arrangements Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, sections 8.1.7

Submission Number	Submitter	Submission	Response
43-10	[redacted]	Temporary Transfer of Allocation The National Water Initiative (NWI) indicates that water trading should be looked at as an option before new storages are constructed. Has any work been done on discussing with irrigators the option of purchasing temporary transfer water. Suggested Solution: This option could work as long as Wandoan Coal was prepared to pay above market rates for the water but in the long run it could be significantly cheaper if Nathan Dam goes ahead two years after the Glebe Weir Bladder finished. And considering that during this two year period the requirement for water is significantly less than the full 8500 ML.	Response: Refer to Supplementary EIS Volume 4, sections 2.2
43-11		Allowing existing off-stream storages to supply water back into the system Suggested Solution: Another option that should be looked at in providing water to the system is allowing off-stream storages to supply water back into the system similar to the water that the Moura Off-stream storage works. Water would need to meet the necessary quality guidelines and again to make if feasible for those with off-stream storages, Wandoan Coal / Sunwater would need to purchase the water at above current market rates, but again it could be a cheaper and more viable option than putting a bladder on Glebe and flooding it two years later.	Response: Refer to Supplementary EIS Volume 4, sections 2.2
44-1	Fitzroy Basin Food & Fibre Association	Public Consultation Process In addition, given the location and nature of the Glebe Option, a separate Glebe Option community and stakeholder consultation program has been undertaken by Sunwater, and is continuing independently of the overall Project consultation program.	Response: Refer to Supplementary EIS Volume 4, sections 4.1 and 4.2
44-1	Fitzroy Basin Food & Fibre Association	To include Fitzroy Basin Food and Fibre Assoc in the community and stakeholder consultation. Executive Officer: Jeanie Conachan Ph 07 4993 1547, Mob: 0429 931547 Email: fbff.jeanie@bigpond.com FBF&F, Dawson River Representative: Greg Hutchinson, Ph: 07 49974001 Fax: 0749974182 Email: hfcfarms@yahoo.com.au FBF&F, Secretary: Robert Hutchinson Ph: 07 49971907 Mob: 0419 757295 Email: robert.hutchinson1@bigpond.com	Response: Refer to Supplementary EIS Volume 4, section 4.1
44-2	Fitzroy Basin Food & Fibre Association	Insufficient communication with downstream irrigators as it appears it has been assumed that these stakeholders won't be impacted.	Response: Refer to Supplementary EIS Volume 4, section 4.2
44-2	Fitzroy Basin Food & Fibre Association	If Glebe option goes ahead, irrigators must be consulted directly to discuss mitigation or planning options. Contact Jeanie Conachan of Fitzroy Basin Food and Fibre Assn Inc. (FBF&F)	Response: Refer to Supplementary EIS Volume 4, section 4.2
44-3	Fitzroy Basin Food & Fibre Association	Conversion Ratios — medium to high priority 8.3.1.1 Question the accuracy of being able to convert 12400 ML (extra t capacity) to 6500 ML of high priority water (conversion ratio 1.9 times) and it would be even less than this when you take into consideration the higher seepage and storage losses that would occur with a larger storage being kept at a full capacity for longer periods of time. Why is the ratio of converting Medium A to high priority lower (3210 ML converts to 2000 ML high priority) Conversion ratio — 1.6 times.	Response: Refer to Supplementary EIS Volume 4, section 8.1.4
44-3	Fitzroy Basin Food & Fibre Association	If Medium A is going to be converted to High Priority will current Medium A licence holders also be given the opportunity to convert at the same conversion ratio? Are these conversion ratios going to set a precedent for future conversions if Nathan Dam proceeds? How is Sunwater able to get considerably better conversion ratios in the Dawson than with Fairbairn Dam where the ratio is 1:3. Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS	Response: Refer to Supplementary EIS Volume 4, section 8.1.4
44-3	Fitzroy Basin Food & Fibre Association	Impact of Weir on Floods Flood Behaviour - says that the impact of the weir will only be on minor (frequent) floods limited to the first flush of the season. In the current water year the raised weir could have a big impact on unsupplemented users. There have been lots of smaller flows which are gradually meeting the environmental flow requirement of 6 days flow at 15 cumecs before water harvesting can commence. The raised weir would have captured all these smaller flows and still not overflowed meaning water harvesters would have to wait even longer to begin flood harvesting. Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, section 8.1.5
44-3	Fitzroy Basin Food & Fibre Association	Glebe Weir can run out of water prior to the end of the irrigation season. If changes to the operating strategy to keep Glebe full or near full to supply High Priority allocations in low water years you can guarantee that existing irrigators will run of water a lot earlier than would be the case if current operating strategy of releases water issues until Glebe is empty remains. This impact has not been filly assessed and compensation for existing users would need to be looked at.	Response: Refer to Supplementary EIS Volume 4, section 8.1.3
44-3	Fitzroy Basin Food & Fibre Association	Suggested solution: Assess possible impacts Provide details of compensation if applicable Communicate with FBF&F to discuss and provide answers to issues before releasing supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, sections 4.2 and 8.1.3
44-4	Fitzroy Basin Food & Fibre Association	Change in Operating Strategy Traditionally Glebe weir has been drained from July onwards to supply existing downstream users (on average 6 out of the past 7 years there has been less than 2000ML on the 1 October). It has been indicated that Glebe will be 'weir will be full to near fill more frequently'. This change in operating strategy will have a significant impact on downstream users who will no longer be able to request this water to be released. Since there has been no mention of increasing the local supply volume (LSV) at Glebe (from its current 800ML — Fitzroy ROP) does this mean that the current operating strategy will not change and if required water will be released to downstream users till Glebe reaches its LSV. Suggested solution: Correct the anomaly if it exists Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, sections 8.1.3
44-5	Fitzroy Basin Food & Fibre Association	Environmental Flow Release Changes Increasing the Reserve volume to 3000 ML will significantly impact the announced allocations in the early months of the water year (Oct to Jan) where reserves are currently significantly lower (1379 - 2500 ML). Increasing the local supply volumes (LSV) for Gyranda and Theodore could also impact those downstream users who in the past could have requested this water to be released to them. If Medium-A water is going to be purchased from the Theodore section and then stored in Glebe why do the LSV for Gyranda and Theodore need to be increased? Suggested solution Further clarification is needed to outline if the current Environmental First Post Winter Flow (6 days @ 15 cumecs) will remain if there is an alterative. Environmental Flow Release Strategy introduced. In Table 8-13 it outlines that in the current ROP there is no Environmental Flow Release Strategy for Glebe or Theodore, there may not be a release strategy based on storage volumes and inflows but there is the requirement for the First Post Winter Flow before any un-supplemented water can be taken. Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, section 8.1.3
44-6	Fitzroy Basin Food & Fibre Association	Compliance with WASO's Pg 8-22 'The reliability of the existing high priority users in Upper Dawson sub-scheme remain at 100%. A lower reliability, given to the proposed Wandoan Coal high priority allocation to ensure the existing high priority users are not affected; and How is it possible to have differing reliabilities for high priority water? Are separate classes for High Priority similar to Medium A & Medium going to be created. Does this mean existing high priority uses will have their allocations met before high priority is allocated to Wandoan Coal Project? Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, section 8.1.3
44-7	Fitzroy Basin Food & Fibre Association	Table 8-15 Mandatory Medium Priority WASO's for Upper and Lower Dawson WASO's may be reduced Monthly Performance Changes Each individual month needs to be shown because overall the median monthly reliability may stay the same or improve but reliability could be significantly worse in the first few months of the water year and significantly better in the last few months of the water year. Timing of reliability could have a big impact on the ability of existing water users to operate their business particularly if they are focused on summer cropping.	Response: Refer to Supplementary EIS Volume 4, section 8.1.3

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44-7	Fitzroy Basin Food & Fibre Association	Unsupplemented Water Users Table 8-16 Comparison of Unsupplemented Water Performance Indicators. Un-supplemented water users are split into 7 zones according to Table 1 - Attachment 5.IB in the Fitzroy ROP. Within each zones users are entitled to exactly the same number of water harvesting days. Therefore Table 8-16 should show the impact within each zone and not at each IQQM node. Suggested Solution: This table needs to show the impact that the weir will have on both 15 and 30 cumec licence holders as the impact will be different for both of them. Table 8-16 to show the impact within each zone and not at each IQQM node.	Response: Refer to Supplementary EIS Volume 4, section 8.1.5
44-8	Fitzroy Basin Food & Fibre Association	Given that the proponent has mentioned compensation for lost water harvesting days and the possibility of providing medium security water instead, has this extra requirement for medium security water been included in the modelling? Suggested Solution Include methodology for providing compensation Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, section 8.1.5
44-9	Fitzroy Basin Food & Fibre Association	Construction Stage Hydrological Impacts There will be a temporary loss of storage during the construction. Current users should be compensated if there is a reduction in reliability of supply during the construction process. Even a small reduction of 2500 ML (5 % of missed allocation) could have big impact on users if that extra 5% was enough for them to finish irrigating their crop. If rather than a bladder, steel shutter gates need to be installed the impact on the loss of potential water for downstream users has not been assessed. Suggested solution: Include methodology for providing compensation Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS.	Response: Refer to Supplementary EIS Volume 4, section 8.1.9
44-10	Fitzroy Basin Food & Fibre Association	Operation Phase — During the first filling of the raised weir Impact if weir and bladder does not fill quickly In years of low inflow particularly if Glebe is empty at the end of the previous water year it may take a significant amount of time until the weir and bladder is fill. If this event does occur the impact of allocating 8500 ML of High Priority water at the start of the water year will have a significant impact on existing users. If Wandoan Coal does not need the full 8500ML in the first year of operation is the full allocation going to be provided or just the minimum that they require (ie 2000ML) as this would go some way in reducing the transitional impact. Suggested Solution: Provide better transitional arrangements Communicate with FBF&F to discuss and provide answers to issues before releasing Supplementary EIS	Response: Refer to Supplementary EIS Volume 4, section 8.1.7
44-11	Fitzroy Basin Food & Fibre Association	Temporary Transfer of Allocation The National Water Initiative (NWI) indicates that water trading should be looked at as an option before new storages are constructed. Has any work been done on discussing with irrigators the option of purchasing temporary transfer water. Suggested Solution: This option could work as long as Wandoan Coal was prepared to pay above market rates for the water but in the long run it could be significantly cheaper if Nathan Dam goes ahead two years after the Glebe Weir Bladder finished. And considering that during this two year period the requirement for water is significantly less than the full 8500 ML.	Response: Refer to Supplementary EIS Volume 4, section 2.2
44-12	Fitzroy Basin Food & Fibre Association	Allowing existing off-stream storages to supply water back into the system Suggested Solution: Another option that should be looked at in providing water to the system is allowing off-stream storages to supply water back into the system similar to the water that Moura Off-stream storage works. Water would need to meet the necessary quality guidelines and again to make if feasible for those with off-stream storages, Wandoan Coal/Sunwater would need to purchase the water at above current market rates, but again it could be a cheaper and more viable option than putting a bladder on Glebe and flooding it two years later.	Response: Refer to Supplementary EIS Volume 4, section 2.2
45-1	[redacted]	1.0 Executive Summary Amber Downs and Paradise Downs is an aggregation of cropping and grazing properties incorporating a beef cattle feedlot and rural residences 11km south west of Wandoan. The close proximity of the feedlot infrastructure and residences to the Mine Lease Applications (MLA's) has failed to invoke interest in the properties by those agencies preparing the Environmental Impact Statement (EIS) for the Wandoan Joint Venture (WJV). This has caused mention of Amber Downs Feedlot to be absent from the great majority of technical reports that comprise the EIS, and as such suitable discussion of the direct impacts caused by the mine on this sensitive receptor are lacking from all said technical reports and the EIS in general. The purpose of this report is to present information on potential impacts to Amber Downs and Paradise Downs as identified in the EIS technical reports.	Noted
45-2		The anticipated impacts to be caused by the WJV upon Amber Downs are very serious and greatly concern the owners the viability of the current feedlot and feedmill businesses are threatened.	Noted
45-3		Feedlot cattle will have significantly higher rates of respiratory disease, injury, morbidity and mortality. Animal stress levels will be elevated causing lower consumption lower gain and lower profits. Lucrative contracts with major buyers will be lost once meat quality and compliance issues surface. Infrastructure maintenance costs will elevate and staff health will decline. Serious occupational health end safety issues will arise and visual amenity and quality of living will decline. With so many serious impacts from the mine custom feeding will disappear from the business model.	Response: Refer to Supplementary EIS Volume 1, section 6.1.
45-4		At present, Amber Downs is possibly the largest supporter of local businesses with an annual direct expenditure of more than thirteen million dollars into the community. Current feedlot expansion plans are forecast to increase this direct local expenditure to more than twenty-seven million dollars annually.	Noted
45-4		Sections 2.0 Persons Making This Submission, and 3.0 Contact with the Wandoan Joint Venture to Date are included in the original submission.	Noted
45-5		4.0 Summary of Impacts on Amber Downs and Paradise Downs A number of impacts on Amber Downs and Paradise Downs have been gleaned from the Wandoan Coal Project Environmental Impact Statement (EIS). They are summarised in Section 4.0 and discussed in further detail in Section 5.0 of this report. 4.1 Perpetual Impact on the Wandoan District Successful rehabilitation of the mine site should involve returning all disturbed land to a level of agricultural production equivalent to current levels. Failure to do so will impact the district in perpetuity through loss of agricultural production arid the resultant permanent loss of jobs. Once the mine is decommissioned in approximately 35 years time and the district has adjusted to its loss in subsequent years, the Wandoan areas is likely to benefit from whatever agricultural production this rehabilitated area can provide. To deliberately rehabilitate much of this land to a lower class of production is not good stewardship.	Response: Refer to Supplementary EIS Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8 and 22.5.6.
45-6		4.2 Anticipated Direct Impacts of the Coal Project on Amber Downs There is no doubt that the Amber Downs Feedlot, The Feedmill Co. and Amber Downs house will be significantly affected by development of the mine as described within the EIS.	Noted
45-7		4.2.1 Impacts on the Feedlot Occupants and Staff A good feedlot is a stimulus tree environment for cattle where they have free access to high value feeds, thorough husbandry practices, gentle handling end plenty of calm, dark hours at night to maximise consumption. Profit is made with stress free, contented cattle. A good stimulus free environment for cattle is perpetually calm, dry, dark and quiet at night and with company. As discussed in the following sections, mine operational impacts including machinery noise, blasting effects (flyrock, noise, airblast overpressure and vibration), and lights at night will provide unwanted stimulus to the lot fed cattle. Stressed cattle consume less, gain less weight and do not make profit The sudden noise, airblast overpressure and ground vibration from blasting may also bring with them potentially catastrophic behaviour in the cattle; cattle can tend to spook in mass causing stampede. The effect of this is not only structural damage to the feedlot itself as cattle crash over and through steel and cable fencing, but also damage to the animals themselves including bruising, cuts, breaks, fractures end even mortality. Seriously frightened cattle, when found, can be reluctant to return to their 'stress free environment' and effectively become a loss to the feedlot. The economic impact of this situation is very serious and potentially very large. Respiratory diseases in confined cattle are often caused by stress and dust. The prevailing winds, particularly in the afternoon before dust can tend to still and hang in the air, are largely from the direction of the proposed mining operations. Any extra dust burden is not welcome, and will be a direct drain on profits through increased sickness in cattle. The effect of this dust and suspended particles on staff (particularly those with respiratory problems such as asthma may also be serious and will definitely be unwelcome. By the time the Woleebee South Pit is commenced late in the proposed project, dust and suspended particle impacts on both Amber Downs and Paradise Downs will be large and serious. The first effects of dust	Response: refer to Supplementary EIS, Volume 1, section 6.3.2, 6.6.4, 13.2.2, 13.2.3, 13.5.3, 13.7, 15.3.2, 15.5.3, 15.6.2, and 17A.5.2.

Submission Number	Submitter	Submission	Response
45-8	[redacted]	4.2.2 Potential Impacts on Feedlot Operation Amber Downs draws water from a number of surface water and groundwater entitlements. Groundwater is drawn from an alluvial aquifer on Woleebee Creek, the sub-artesian Coal Formation and Hutton Sandstone as well as the Precipice formation in the Great Artesian Basin. A number of development permits are also held to sink new bores into these aquifers. Surface water is stored in a number of small and large notified storages. Although the impact of blasting on the structural integrity of groundwater bores is played down within the EIS, we do hold concern for the long-term viability of the bores due to their relatively close proximity to blasting. The EIS does not dispute the potential for permanent and systematic loss of alluvial and coal seam aquifers through mining operational, including those aquifers supporting Amber Downs and Paradise Downs. The primary surface water concerns involve two storages: the 576 megalitre 'Big Dam', with a 7.5m high embankment situated just 650m from the MLA boundary and the 'Feedlot Dam', with a capacity of 100 megalitres, a 5m high embankment and 750m proximity to the MLA boundary. Both of these storages lie immediately adjacent to the Woleebee South Pit. Blasting in the adjacent pit may cause cracking or fractures of the embankment or floor that cause water loss or eventually catastrophic failure of the storage. Loss of any, or all of the water sources could significantly impede business profitability and even viability. Although not a clean water source, the Effluent Holding Pond (EHP) captures surface water runoff from the controlled drainage area of the feedlot and stores it for pending mixture with 'clean' water during irrigation to the Effluent Irrigation Area. The physical characteristics and capacity of the EHP are controlled by EPA legislation and administered by the Department of Primary Industries; effluent leaching is to be limited to a maximum of	Response: Refer to Supplementary EIS Volume 1, section 6.1, 10.8, 16.5.2 and 16.6.2.
45-8		Direct safety issues include the feedlot being within the standard Xstrata Coal Queensland standard exclusion zone of 600m from blasting. The potential impact of fly rock on man, animal, commodity, machinery and infrastructure are totally unacceptable. Likewise, the potential impact of regular vibration and airblast overpressure on grain storage silos, elevated bins and liquid storage among other feedlot infrastructure establishes many potential workplace health and safety concerns.	Response: Refer to Supplementary EIS Volume 1, sections 6.1, 16.5.2 and 16.6.2.
45-8		With the realignment of the Jackson Wandoan Road must come a new improved junction with Paradise Downs Road and possibly a new entry near Amber Downs Feedlot. The EIS states that construction of this new alignment will conform to Main Roads standards: logically this will include turning lanes from both directions on the Jackson Wandoan Road that appropriately service the feedlot. Likewise, at least 1.5km of the Paradise Downs road should be properly seated to duplicate the existing length of seal from the intersection of the roads. Approximately 1237 round trips (in then out of the feedlot) of road-trains and b-doubles are expected annually when the feedlot is fully developed. This averages about 34 trucks per day over the full year — any periods that these vehicles are not able to access the feedlot due to road works or other stoppages would be harmful to feedlot operation and animal health.	Response: Refer to Supplementary EIS Volume 1, section 6.6.2.
45-8		Amber Downs has paid for an 8km long 3-Phase power line that runs through the MLA. Guarantees would be required that power supply not be interrupted to the feedlot.	Response: Refer to Supplementary EIS Volume 1, section 6.6.9.
45-8		It is also preferred that the proposed now waste dump facility for the township is not located on any transport route for feedlot livestock or commodity due to bio-security concerns.	Response: Refer to Supplementary EIS Volume 1, section 6.7.1
45-9		4.2.3 Potential Impacts on Residences The Amber Downs house was deliberately built at an elevated position to take advantage of the rural views to the north and west. The great majority of this vista will be mined and distasteful to the eye. A combination of direct machinery lights at night, noise from the nearby pits and haul roads, dust and suspended particles, blast noise, airblast overpressure, vibration and loss of rural view all significantly effect the primary residence on Amber Downs. During the years that the Woleebee end Woleebee South pits are mined the EIS expects that operational noise levels from the mine will be excessive. Likewise, dust and suspended particles are expected to be problematic beginning in year five of operation and remain until the end of the project. Machinery lights directly on the house at night are expected during mining of the Woleebee South Pit. Most concerning is proximity of the house to the Woleebee South Pit during blasting, within the Xstrata Coal Qld. standard 600m exclusion zone. Potential impacts from blasting include flyrock strikes, excessive vibrations and airblast overpressures.	Response: Refer to EIS Volume 1, sections 19.5.3 and 19.6, and Supplementary EIS Volume 1, sections 6.1, 13.5.3, 13.6.2, 13.7, 15.3.2, 15.5.3, 15.6.2, 16.5.2, 16.6.2, 19.5.3, and 19.6.
45-10		4.2.4 Potential Impacts on Farming/Grazing The potential impact on the farming and grazing operations at Amber Downs are not as significant as for the feedlot or for the residence. As described above, concern exists for the future of livestock water sources, particularly groundwater entitlements from the Juandah Alluvium, the coal seam end the Great Artesian Basin. Some loss of production would occur as s result of increased dust deposition over grazing pastures particularity along the MLA boundary. This would primarily occur due to cattle preferring not to eat dusty grass. Regular inconvenience though limitations on grazing and properly access would be unavoidable when blasting was carded out in the Woleebee South Pit due to Xstrata Coal Queensland's 600m standard exclusion zone as described above. As discussed elsewhere in this report, the chemical composition of the dust will be variable and unknown giving some concern to potential contamination and meat quality issues.	Response: Refer to Supplementary EIS Volume 1, sections 6.1, 10.5, 10.6.2, 10.8, 13.5.3, 13.6.2, 13.7, 16.5.2 and 16.6.2.
45-11		4.2.5 Additional Concerns not raised in the EIS Although a reasonably well defined operations program for the life of the mine has been described within the EIS, there is significant scope for the Wandoan Joint Venture (WJV) to vary the pit locations, the number of pits and their order of construction thus making it difficult for some surrounding landholders to forward plan their businesses with confidence in consideration of when they will actually be impacted by the mine and for how long. It is inevitable that the WJV will alter the project as more detailed information presents itself regarding many of the broad issues and impacts raised within the EIS. There is also concern that the WJV, or another company, may apply to mine the coal deposits south of the existing MLA's at some time during the life of the current proposal or following the current proposal. With such significant infrastructure in place such as rail spur, conveyor systems, a gas pipeline, an airport, a coal washing end handling facility, an operational water supply and a workforce the decision to continue mining may not be a difficult one to make. These items place significant uncertainty on the reliability of future development of Amber Downs Feedlot. Also of significance is the automatic reduction in value that properties surrounding the MLA will receive once development of the mire is announced. In many cases, this devaluing has already occurred. Amber Downs and Paradise Downs adjoin the MLA in one of the areas most heavily impacted by	Response: Refer to Supplementary EIS Volume 1, section 6.1, and Noted.
45-12		4.2.6 Anticipated Indirect Impacts 4.2.6.1 Loss of labour Amber Downs Feedlot currently employs up to 20 staff and contractors primarily as machinery operators. Post expansion, the number of people employed will reach approximately 50. Historically, mining jobs offer significantly more remuneration that agricultural sector employment and sourcing this labour will be significantly more difficult than even the current situation.	Response: Refer to Supplementary EIS, Volume 1, section 21.8.
45-12		4.2.6.2 Rental Accommodation Scarcity of dwellings and increased housing rents are already being experienced in Wandoan due to the presence of the WJV. Real estate agents have increased rents as they claim they can get much higher rents from the WJV. Consequently, Amber Downs now pays rental assistance to employees.	Response: Refer to Supplementary EIS, Volume 1, section 21.8.
45-12		4.2.6.3 Direct Loss of Business It is expected that those within the cattle industry will not place cattle in a feedlot with direct impacts from the mine such as those described in this report. In the short to medium term, this fact alone is likely lead to the feedlot business becoming much less viable, and possibly unviable. Within the MLA's a number of existing and potential suppliers and clients will be lost. These include properties that grew silage, grain and hay for the feedlot. They also include cattle suppliers from which to purchase cattle or to provide custom fed cattle. A significant loss of bin ration clients for the Feed mill Co. will also occur. A wider area will be required to source inputs for the feedlot, thus increasing transport and related expenses. Likewise, a significant portion of income for the Feedmill Co. will permanently disappear through land use changes for the mine.	Response: Refer to Supplementary EIS, Volume 1, section 22.6.5.
45-13		4.2.6.4 Loss of Supporting Businesses Local business such as harvesting contractors, farming contractors, stock agents, etc will have their customer base eroded by land use changes for the mine. It is expected that some of theses may become less viable as a result and require shutting down operations or shifting operations to another district. The impact on the feedlot through not being able to access some of these services could be serious and may require alteration to the scope of operations to fill any voids created. The drain on capital could be severe.	Response: Refer to Supplementary EIS, Volume 1, section 22.6.5.
45-14		5.0 Impacts on Amber Downs and Paradise Downs Many of the impacts of the Wandoan Coal Project upon Amber Downs and Paradise Downs have been identified within the EIS. This section discusses several of these impacts in further detail. Each sub-section that details these impacts lists some of the reasonable expectations that the community holds regarding the proposed activity, the information found in the corresponding Technical Report associated with the EIS and a discussion of expected operational, amenity and safety concerns from the perspective of Amber Downs and Paradise Downs.	Noted
45-15		5.1 Blasting Vibration, Airblast Overpressure and Flyrock 5.1.1 Community Expectations That residences and businesses not no adversely effected by blasting at the mine.	Response: Refer to Supplementary EIS, Volume 1, sections 16.5.2 and 16.6.2.

Submission Number	Submitter	Submission	Response
45-16	[redacted]	5.1.2 Information Sourced from the Relevant EIS Technical Report Relevant Technical Report: 'Environmental impacts From Blasting' • There is always potential for some rock to be ejected from the blast area (flyrock). • The distance to the limiting ground vibration level of 5mm/s lies approximately 70% of the critical distance required to manage the airblast effects. The ground vibration levels experienced by any sensitive receptor will therefore meet the EPA Guideline requirements. • Xstrata Coal Queensland adopts a standard exclusion zone of 600 m from open pit blasts in their existing open pit operations. There are no particular circumstances or conditions that have been identified in the future Wandoan operations that suggest that this practice should change. However, in practice it will be necessary for the exclusion zone to be reviewed on a blast by blast basis as required by the Blast Management Plan. • The vibration experienced at distance from a blast may last for two or three seconds • As airblast generally consists of sound waves with very long wavelengths (10 m to 300 m) it is very difficult to screen its effects using vegetation or other barriers. Airblaat is seldom heard, although aecondary effects such as the rattling of windows or roofing iron will probably be audible. • MLA-505 Amber Downs House is within the 115dB Linear airbiast overprassure zone for years 26 to 30. • A house south east of the Woleebee South Pit also lies 500 m from the corner of the pit. This house will be purchased by the WJV.	Noted
45-17		5.1.3 Discussion The Amber Downs Feedlot has not been mentioned in the Environmental Impacts from Blasting technical report The feedlot is situated just 200m from the MLA boundary immediately adjacent and just 400m separated to the Wooleebee South Pit. This comfortably places the feedlot within the Xstrata Coal Queensland standard exclusion zone of 600m and within reach of flyrock from the blasting.	Response: Refer to Supplementary EIS Volume 1, sections 6.1 and 16.5.2.
45-18		Likewise the Amber Downs house (ML-505) is situated just 500m from the Wooleebee South Pit and has been identified within the EIS as 'will be purchased by the WJV. This house is also within the Xstrata standard exclusion zone end potentially within reach of flyrock. Structures within the feedlot likely to be affected by flyrock strike and ground vibration include tall elevators up to 23m in height, grain silos up to 322 tonne capacity, overhead bins as well as concrete walls standing to form commodity bays.	Response: Refer to Supplementary EIS Volume 1, sections 6.1 and 16.5.2.
45-19		The effects on livestock could be devastating due to increased stress (fright) from intermittent blasts within the mine and resultant vibration. Stampede, bruising, dark cutting, reduced consumption end liveweight gain are all likely effects of blasting. Associated with these affects are increased infrastructure maintenance coats, production downtime and livestock mortality due to stampede as well as reduced income and profit due to lower weight gains, increased dark cutting, bruising and other meat quality issues. This is a potentially devastating issue for Amber Downs feedlot.	Response: Refer to Supplementary EIS Volume 1, sections 6.1 and 16.5.2.
45-20		Although the effect of blasting on bore structural integrity is downplayed within the technical report losses of coal seam or alluvial water cannot be ruled out due to unforeseen fracturing and/or extraction of the coal seam or alluvium.	Response: Refer to Supplementary EIS Volume 1, sections 10.6.2 and 16.5.2.
45-21		Amber Downs Feedlot currently lease the Wubagul grain handling facility at the town of Wandoan from Graincorp: negotiations are underway to purchase the facility. Wubagul consists of two concrete grain silos with a capacity of 2800 tonnes each, that stand 36m high with a bucket elevator to 4am height. Vibration from the Frank Creek Pit may bean issue on these structures .	Response: Refer to Supplementary EIS Volume 1, sections 16.5.2 and 16.6.2.
45-22		5.2 Groundwater 5.2.3 Discussion The Groundwater Technical Report within the EIS paints a bleak future for the groundwater resources surrounding the MLA should mining proceed. Phrases such as: 'alteration of ground water levels', 'potential artificial recharge', 'reduced recharge and increased leakage', 'reduction in overall size of the resource', 'changes in water development chemistry', 'release of hazardous gases', 'reduction or elimination of shallow groundwater', 'contamination of aquifers', 'new or increased connectivity between aquifers due to fracturing (blasting)' are littered throughout the report. The technical report also stresses the need for a more detailed analysis of groundwater impacts. All three groundwater sources (alluvium, coal seam and Great Artesian Basin) are particularly relevant to Amber Downs because each of them supplies water to the property.	Noted
45-23		Amber Downs was not contacted during the Parsons Brinkerhoff Hydrocensus in May 2008 (as detailed in the 'Groundwater Tech Report v5). As such not all bores on Amber Downs have been identified for the purpose of the EIS. Bore 105212 is situated approximately 500m from the MLA boundary and about 2km from Wards Bore and Bore 189795 into the Hutton Sandstone has not been identified in the report. Amber Downs also holds a license to develop a Precipice Bore that would be adversely affected if the new town bare were put down close to Amber Downs. The bore on Pecos Valley has been incorrectly classified as a "Community Bore" RN22117. Although the owner has made deals to supply the water to several neighbours including its use for intensive purposes on a neighbouring property, it is only licensed for use on Pecos Valley. At no time has Amber Downs had or sought access to this bore.	Response: Refer to Supplementary EIS Volume 1, section 10.3.3, 10.6.2, 11.4.3.
45-24		5.3 Surface Water 5.3.1 Community Expectations • That flooding events not increase or decrease significantly in magnitude • That water quality in surrounding streams not be negatively impacted by the mine development	Response: Refer to Supplementary EIS Volume 1, sections 11.5.2, and 11.6.4.
45-25		5.3.2 Information Sourced from the Relevant EIS Technical Report Relevant Technical Report: Water Supply end Water Management Technical Report • Appreciable, though not major increases in flood levels upstream and downstream of MLA • Significant losses of flood storage (and hence recharge of alluvial groundwater) where streams are diverted within the MLA	Response: Refer to Supplementary EIS Volume 1, sections 11.5.3 and 11.6.4.
45-26		5.3.3 Discussion According to the flood modelling, only minor flood variations are expected to occur on Amber Downs. However, the proposed streamflow diversion for One Arm Man Creek has only been mentioned sporadically during the 'Water Supply and Waler Management' technical report, possibly, because the mining operations have gradually evolved during preparation of the report. One Arm Man Creek runs straight through the Wooleebee South Pit and requires diversion should the pit be constructed. Considering the relatively small scale of the catchment, one possible mitigation technique (subject to DNR approval) way be to construct one or more surface-water storages on the drainage lines as they exit Amber Downs into the MIA. Amber Downs has four major surface water dams (and several minor storages) that provide water to the feedlot and provide potential future irrigation development. The largest of these surface water storages has a high embankment, a capacity of 576 ML and is situated 850 from the MLA boundary. Of more significant environmental significance is the Effluent Holding Pond servicing the feedlot that is separated 300m from the MLA (reduced to 200m with the next stage of feedlot development). The effect of blasting and vibration on these structures could potentially cause leakage, eventual failure end loss of stored contents. Failure of the Holding Pond could be catastrophic resulting in the release of extremely nutrient and salt laden effluent into the environment (and onto the MLA). Also of concern are the effects of feedlot dust settling into surface water storages on Amber Downs. The chemical composition end additives from the mine associated with this dust is unknown and a potential contaminant to the livestock that are supported by the water	Response: Refer to Supplementary EIS Volume 1, sections 11.4.5, 13.2.2, 13.2.3, 13.5.3, 13.7, 16.5.2, and 16.6.2.
45-27		5.4 Air Pollution 5.4.1 Community Expectations That there be no adverse air quality effects on private residences or places of business. 5.4.2 Information Sourced from the Relevant EIS Technical Report Relevant Technical Report : 'Air Quality Assessment of the Proposed Wandoan Coal Mine' • In sensitive individuals, or when high levels of particles are present, particulate matter may contribute to increased rates of respiratory illnesses and symptoms. • Year 5 Dragline PM10 maximum 24-hour for the mine — Receptor MLA505 Amber Downs House and feedlot well above the150ug/m3 threshold. • Year 5 Truck end Shovel PM10, maximum 24-hour for the mine with background — Amber Downs house end feedlot well above the 150ug/m3 threshold. • Year 20 PM10 maximum 24-hour ground level concentrations both Amber Downs house and feedlot and possibly Paradise Downs house. Includes some significant daily dust deposition at the feedlot from the mine. • Year 30 PM10 maximum 24-hour ground level concentrations well over the limits (sometimes double the limits) for the entire Amber Downs property and two- thirds of Paradise Downs including the house. Daily dust deposition is more than doubled over background rates at the Amber Downs house and feedlot.	Noted

Submission Number	Submitter	Submission	Response
45-28	[redacted]	5.4.3 Discussion The EIS expects that both the house and feedlot on Amber Downs are to be significantly adversely affected by suspended particles within the first five years of mine operation, regardless of whether a dragline or truck and shovel are employed to extract overburden and coal. The suspended particles are expected to remain a problem until decommissioning of the mine at Year 30. Dust is a serious cause of major health problems for lot-fed cattle. The risk of chemicals, toxins et cetera from the mine site dust that deposits on the feed bunks of cattle that feed 24 hours a day is a very real health risk. Some of these animals are long fed for overseas markets that have stringent residue limits. The greatest natural accumulations of dust at the feedlot are anticipated from north westerly winds that blow in front of rain storms and dust storms. The great majority of the MLA sits to the north-weal of the feedlot end so, therefore, does a lot of potentially harmful dust. When feedlot expansion is completed (subject to approval) numbers of staff and contractors on site will regularly range from 40 to 60. Additional staff accommodation to be built on Amber Downs will also be seriously effected by mine generated air pollution. The health considerations for Amber Downs are very serious: up to 15000 cattle at any one time and 60 people may be negatively affected	Response: Refer to Supplementary EIS Volume 1, sections 6.1, 13.3.4, 13.5.3, 13.6.2 and 13.7.
45-29		5.5 Operational Noise Pollution 5.5.1 Community Expectations That there be no adverse noise pollution on private residences or places of business	Resposne: Refer to EIS, Volume 1, section 15.3.1
45-30		5.5.2 Information Sourced from the Relevant EIS Technical Report Relevant Technical Report: 'Noise Impact Assessment' • Machinery noise reduction measures include attenuation of all mine equipment, and use of broadband reversing sirens. Other means of noise reduction include restriction of operation to daylight hours. • Year 10 MLA-505 has exceeded night criteria using non-attenuated machinery • Year 30 MLA-505 exceeds day and night criteria for attenuated and non- attenuated machinery	Noted
45-31		5.5.3 Discussion Only the Amber Downs house has been identified as a potential noise receptor in the Noise Technical Report: the feedlot has not been mentioned, identified or accounted for in the Operational Noise Model. From the series of maps published as Attachment D of the technical report, mine operational noise levels at the feedlot can be tabulated as follows. See original submission for the Table. At the feelot, night operational noise levels exceed the criteria (28 dBA) in Year 5 and Year 30. Likewise, daytime noise level criteria (33dBA) are equalled/exceeded at Year 10 and 30. The Amber Downs house is expected to receive excessive operational noise during the years that the Woleebee Pit and Woleebee South Pit are being mined.	Response: Refer to Supplementary EIS Volume 1, section 15.3.2, 15.5.3, and 15.6.2.
45-32		5.6 Visual Amenity 5.6.1 Community Expectation • That all steps be taken to return the landform to a natural shape following mining. • That residences and businesses are not adversely affected by tights at night or close proximity mining.	Noted
45-33		6.6.2 information Sourced from the Relevant EIS Technical Report Relevant Technical Report: 'Visual Impact Assessment Report' • Visual sensitivity levels are deemed highly sensitive if the nearest visible mine elements are less than 2.5km away from urban and rural houses. • The visual effect of direct light associated with mine pit areas, i.e. drag line, shovel and truck lighting would be moderate end in some cases where houses are within 1-2km and without intervening vegetation could be high. • The effect of lighting at night on rural residences to the south would be high compared to the existing dark ambient night time condition. • Amber Downs house identified as requiring a Visual Mitigation Strategy.	Noted
45-34		5.6.3 Discussion Amber Downs Feedlot (not identified ass receptor in the report), situated just 200m from the MLA boundary, will be able to see overburden from mining of several pits to the north and north-west. Approximate separations from the proposed Woleebee Pit and Woleebee Creek Pit are approximately 2500m. Separation from the Woleebee South Pit is approximately 400m. For the feedlot, all three Woleebee Group Pits area within the 'highly sensitive' visual sensitivity level as defined in the 'Visual Impact Assessment Report' within the EIS. Due to the elevated position of the feedlot compared to the mine site, it is anticipated that there will be direct line of sight lo areas projecting a light source from all three Woleebee pits and mitigation strategies would need to be enacted. The scenario of night-lights directly upon feedlot cattle is not ideal and should be avoided if possible. Cattle feed best at night and therefore any unnecessary stimulus that can be removed should be removed. Probably the best mitigation strategy would be one or more screen line of trees to the north of the feedlot. Amber Downs house (end other planned accommodation is situated on an elevated position to maximise views to the north end west and is approximately 500rn separated to the proposed Woleebee South Pit. As with the feedlot, it is expected that light from mine machinery will fall directly onto the house. Haul road traffic will also be highly visible. Probably the most appropriate mitigation strategy will be one or more screen lines of trees pieced on the MLA and possibly Amber Downs. Also of concern is the loss of rural view from the house, as it is gradually replaced by an increasingly artificial vista over a period of 35 or so years, never to return to a natural landform.	Response: Refer to Supplementary EIS Volume 1, sections 6.3.2, 6.3.3, 19.5.3, and 19.6.
45-35		5.7 Traffic Corridors/Movements 5.7.1 Community Expectations -That all new road traffic transits safely along suitable road corridors -That damage to existing roads be minimised and the roads left in at least the state in which they were prior to the commencement of the project. 5.7.2 Information Sourced from the Relevant EIS Technical Report Relevant Technical Report: 'Transport Impact Study' - The major years of traffic disruption are Year -2 and Year -1 (2010-2011) - The Jackson Wandoan Road is the only State Controlled Road that requires realignment with the MLA. The realignment is to be constructed to Main Roads standards. - Many local roads within the MLA will be abandoned. - New road servicing the MIA to commence from the Leichhardt Highway, 6km north of Wandoan. - Airstrip and building to be constructed within or immediately adjacent to the MLA to allow operational workforce to fly in and out of the mine. - Major pavement impacts on the Leichhardt Highway will occur during the construction phase from Year -2 to Year 4 (2010-2015) and during the operations phase (2012-2042). - Significant pavement impacts are expected along the route from Wandoan to Oakey Creek Power Station during Years -2 and -1 (2010-2011). - May limit construction phase vehicle movement during school bus hours - Staged release of construction crew during shift changes	Noted
45-36		5.7.3 Discussion Amber Downs are most concerned about the new location of Jackson Wandoan Road (JWR) and the airstrip. The airstrip is best located well away from Amber Downs, with no flight paths that take craft over or near the feedlot, to minimise disruption and anxiety to the lot-fed cattle. The JWR is the primary sealed road that services the feedlot and must be capable of carrying loaded road trains of cattle to and from Wandoan at all times during construction and operation of the mine and during construction of the new alignment. Amber Downs have previously contributed to the intersection of JWR and Paradise Downs Road and expect that the project would as least provide a turning lane on JWR in each direction (from Jackson and from Wandoan) due to increased traffic volumes and the projects requirement to meet Main Roads design standards. Likewise, the section of road from the new intersection of JWR and Paradise Downs Road should be sealed to the front gate of Amber Downs as an attempt to duplicate the existing 1.5km or so of sealed Paradise Downs Road south from its junction with JWR. Estimated annual road-train and b-double truck traffic generation is 1237 round trips (ie in and out of the feedlot). Two scenarios have been provided regarding the final alignment of the JWR. The first option involved running JWR along the northern boundary of Amber Downs (also the southern boundary of the MLA) which would require turning lanes in the immediate vicinity of the feedlot. The second option involved running the JWR through in the middle of Pecos Valley (north of Wooleebee South Pit) which would require turning lanes at the Paradise Downs Road	Response: Refer to Supplementary EIS, Volume 1, Chapter 6, sections 6.6.2 and 6.6.4.
45-37		5.8.1 Community Expectation -That affected land be returned to similar or enhanced land classification following coal extraction -That the rehabilitation be complete and sustainable, with no lingering maintenance or other issues to arise post mine closure	Noted

Submission Number	Submitter	Submission	Response
45-37	[redacted]	5.8.2 Information Sourced from the Relevant EIS Technical Report - Approximately 12400ha of Class 2 beef cattle grazing to be relegated to Class 3 or Class 5. - Approximately 6300ha of Class 3 dryland cropping relegated to Class 4 and 1400ha relegated to Class 5. - Tremendous alterations to the landform including creek diversions, pit voids and overburden piles. - A seemingly incomplete rehabilitation plan that fails to set objectives or place performance criteria on the effort to return the land to a sustainable and useful state. - No evidence that the WJV can successfully rehabilitate land to its pre-mining classification.	Noted
45-38		5.8.3 Discussion Full rehabilitation of the affected areas must consist of returning the land to an identical or enhanced state of agricultural productivity following removal of the coal resource. Allowing such large areas of highly productive country to be permanently degraded in the manner proposed within the EIS will negatively affect the aesthetics and economics of the Wandoan district for generations to come. A well-designed and implemented rehabilitation plan would leave the land productive and not susceptible to the rigours of nature. Specific outcomes should include leaving the entire site capable of resisting erosion by maintaining gentle landform gradients and providing a system of carefully designed contour banks and floodways on the longer slopes. Topsoil and subsoil layers need to be carefully replaced of original composition and depth and a significant amount of organic fertiliser needs to be incorporated into the topsoil prior to seeding with native or improved pastures. All pit voids should be filled as part of the rehabilitation: it is possible to adjust the method of strip mining to incorporate complete backfilling of the pit. Organic fertiliser (such as cattle manure) is probably the best, and definitely the most suitable, nutrient source for establishment of ground cover (trees, pasture) in rehabilitated areas. Unlike chemical fertilisers, manure will provide nutrient to the plant over many years as well as improve the moisture retention properties and microbial activity of the soil. One application of manure pre planting and another about 5 years post planting may [illegible]	Response: Refer to EIS Volume 1, section 9.6, and Supplementary EIS Volume 1, sections 9.5, 9.6 and 25.4.6.
45-39		The Amber Downs Feedlot not only has expertise in the testing and application of organic fertiliser and regeneration of pastures, but is also a large producer of organic fertiliser. Little is mentioned of the proposed creek diversions within the EIS. It is of concern that the proposed creek diversions will adversely affect the rate and nature of floodwater discharge of the existing creeks and alter the duration end magnitude of flooding maintenance or other issues to arise post mine closure, upstream and/or downstream of the MLA. Any flooplain narrowing and watercourse straightening has the tendency to increase flood durations upstream and sediment loads downstream. Diversion of watercourses in the manner inferred (but not detailed) within the EIS is extremely difficult to get right when all appropriate performance criteria are met: minimal effect of flood duration, magnitude and patterns, suitable erosion control, ample ponding, establishment of vegetation and minimisation of embankment slippage as well as general sustainability and zero maintenance requirement.	Response: Refer to Supplementary EIS Volume 1, section 11.4.5.
46-1	Weemala Bore Group	We are a group of five landholders in the Taroom area. This group was formed eight years ago to drill an Artesian bore into the Precipice Sandstone to establish a reliable water supply as this area has had water problems in the past. This has been a huge success as it has given total water security.	Noted
46-2	Weemala Bore Group	Our group is very concerned that proposed drilling and mining has potential to (I) Lower the water table to a point where it becomes difficult and expensive to access the water. (2) Contaminate our present excellent quality water supply, through the mixing of water from toxic strata. if either of these problems were to occur, they would seriously diminish country, widely acknowledged as some of the finest and safest cattle grazing land in Australia. With the concerns of climate change and the world's already shortage of food, our long term productivity MUST be preserved at all cost.	Response: Refer to Supplementary EIS, Volume 1, sections 10.5.1 and 10.8.
46-3	Weemala Bore Group	This area has been grazed since shortly after Ludwig Leichhardt's expedition in 1844 and there is no reason to suggest that productivity, through grazing, could not continue for another thousand years or more. The Wandoan Coal Project must not be allowed to jeopardize that potential. Please consider the above as this group prides itself on working under methods of best practice.	Response: Refer to Supplementary EIS Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8 and 22.5.
47-1	Department of Emergency Services (now Department of Community Safety)	Thank you for letter received 16th December 2008 inviting the Department of Emergency Services (DES) to provide comment regarding the draft Environmental Impact Statement (EIS). Officers of the DES have reviewed the EIS and provide the following recommendations regarding State Planning Policy 1/03 (SPP 1/03) and emergency response issues:	Noted
47-1	Department of Emergency Services (now Department of Community Safety)	State Planning Policy 1/03 Flooding The study area is situated within two major catchments, the Fitzroy River and the Dawson River which are capable of severe flooding. A detailed Flood Study Technical Report has been prepared by Parsons Brinkerhoff Australia Pty Ltd, dated November 2006 (Vol.1, Ch.11). The EIS provides flood maps in Volume 1, Chapter 12 which identifies the existing extent of flooding over the Mining Lease Areas (MLA), as well as proposed surface water management systems, monitoring and the like. Section 6.5 of this report states that: "Habitable infrastructure, such as the accommodation village should not be located within the 1% AEP area of inundation. Critical infrastructure, such as emergency services, should be given a very high level of flood immunity, which may be achieved by locating them outside the 0.1% AEP area of inundation."	Noted
47-1	Department of Emergency Services (now Department of Community Safety)	Section 7, Conclusions and Recommendations states, inter alia: • The flood modelling indicates an appreciable increase in 1%AEP flood levels (up to approximately 0.3m) in Juandah Creek downstream of the MLA and in Woleebee Creek at the northern boundary of the MLA. This is principally due to the loss of flood storage on the Woleebee Creek flood plain due to the construction of the Woleebee Creek diversion. • the Windamere homestead is the only dwelling identified by the flood modelling as being affected by increased flood levels in the vicinity of the site. The flood modelling indicates that the 1%AEP flood level would increase by approximately 0.26m, but it would not rise enough to reach the dwelling itself. • the flood modelling has indicated the extents of flooding around the MLA areas, which may be used to locate infrastructure with appropriate levels of flood immunity.	Noted
47-1	Department of Emergency Services (now Department of Community Safety)	In addition, Volume 1, Section 23.8— Emergency Management Plan states that: "The risk posed by flooding will vary during the life of the Project as changes occur as part of the Project such as changes in landforms, catchment areas, storage areas, structures and creek diversions as required. However the likelihood of impacts from flooding will be minimised by appropriate design of the final landform and storages, and allowance for flood events..." Volume 1, Ch. 9, Section 5.1 - Geology, mineral resources, overburden and soils impact Assessment by Parsons Brinckerhoff Australia Pty Ltd (November 2008), states that: ...Changes to the location and width of the floodplains will also occur as a result of mining and creek diversions." The Wandoan Coal Project EIS has undertaken a comprehensive assessment of the potential flood impacts and mitigation measures. However, a number of recommendations are provided below.	Noted
47-2	Department of Emergency Services (now Department of Community Safety)	Recommendations It is recommended that further flood investigations and assessment be undertaken during the life of the project, so as to ensure the risk posed by flooding is minimised on people, property, economic activity and the environment at critical stages of the project. These investigations should consider the changes to existing floodplains as a result of mining activity.	Response: Refer to Supplementary EIS Volume 1, sections 11.3.4 and 11.6.4.
47-3	Department of Emergency Services (now Department of Community Safety)	Further, the proposed Emergency Response and Action Plan (ERAP) should be prepared in accordance with the SPP 1/03 Guideline/Appendix 5A/Flood (Page 55).	Response: Refer to Supplementary EIS Volume 1, section 23.8.
47-4	Department of Emergency Services (now Department of Community Safety)	Bushfire Taroom Planning Scheme provides a Land Characteristics Map — "Bushfire Hazard Areas". As stated in Chapter 3, s23.3.1: "Council mapping shows that the MLA area is in a region of low bushfire risk (refer to Chapter 7 Climate). Small patches of land to the west and portions of land to the east of the Project area are classified as being 'medium bush fire hazard' due to shrub and tree cover. Overall, the existing risk to the MLAs and adjoining areas as a result of fire is expected to be low."	Noted
47-4	Department of Emergency Services (now Department of Community Safety)	Volume 3, 57.7.3 Bushfires, states: "Bushfire risk maps created by the Queensland Rural Fire Brigade (2002) indicate that the bush fire risk is relatively consistent across the study area. The elevated western portion of the study area is allocated a medium bush fire hazard, whilst the central and eastern portions of the study area are allocated a low bush fire hazard... Additionally, an Emergency Management Plan (see Chapter 23 Hazard and Risk) which will address all foreseeable site specific risks, such as cyclones, fire and flood, including appropriate contact details of emergency services agencies, will be prepared prior to commencement of construction activities." The proposed "Emergency Management Plan" is detailed in section 23.8 of Volume 1. Recommendations regarding compliance with SPP 1/03 are provided below.	Noted

Submission Number	Submitter	Submission	Response
47-5	Department of Emergency Services (now Department of Community Safety)	Recommendations It is recommended that the proposed “Emergency Response and Action Plan” be prepared in accordance with the SPP 1/03 Guideline/Appendix 5B/Bushfire (Page 60). Specifically, the ERAP should address the matters associated with the likely direction of bushfire attack, environmental values that may limit mitigation options, location of evacuation routes and or safety zones.	Response: Refer to Supplementary EIS Volume 1, sections 7.8 and 23.8.
47-6	Department of Emergency Services (now Department of Community Safety)	Landslide There are no Natural Hazard Management Areas for landslide provided by Taroom Shire Council. Volume 1, Chapter 9 of the EIS provides detailed mapping associated with Geology, mineral resource, topography and land suitability. Figure 9-3-V1-3 Site Topography details contours within the MLA. Volume 1, Ch. 9, Section 5.1 - Geology, mineral resources, overburden and soils impact Assessment by Parsons Brinkerhoff Australia Pty Ltd (November 2008), states that: "...the site currently consists of low undulating hills with concave slopes generally less than 4% but with up to 15% gradient for a few upper slopes, and alluvial floodplains varying in width between 500 m and 2 km. The mining activities will result in topographical changes to the Project area during mine operation and post-mining, through the removal of existing topographical relief during overburden stripping and mining, the creation of new topographic highs through the placement of spoil strips and spoil dumps, and topographic lows in the form of voids. Changes to the location and width of the floodplains will also occur as a result of mining and creek diversions.”	Noted
47-6	Department of Emergency Services (now Department of Community Safety)	According to Chapter 3, s23,3.1, “The topographical relief across the MLAs and adjoining areas is generally relatively low, and the risk of landslides is therefore minimal”. A comprehensive assessment of geology, mineral resources, overburden and soils of the land has been undertaken including details of existing environmental conditions, potential impacts and mitigation measures associated with the Wandoan Coal Project. Recommendations regarding compliance with SPP 1/03 are provided below.	Noted
47-8	Department of Emergency Services (now Department of Community Safety)	Recommendations The proposal must demonstrate how the “development maintains the safety of people, property and hazardous materials manufactured or stored in bulk from the risk of landslide“ in accordance with SPP 1/03 Guideline/Appendix 5C (Page 63).	Response: Refer to Supplementary EIS Volume 1, section 23.8.
47-9	Department of Emergency Services (now Department of Community Safety)	The proposed ERAP should address the matters associated with the increased risk of landslide as a result of topographical changes during mining activities.	Response: Refer to Supplementary EIS Volume 1, section 23.8.
47-10	Department of Emergency Services (now Department of Community Safety)	Emergency Response Action Plan The ERAP should be prepared in consultation with the regional offices of Queensland Fire and Rescue Service, Queensland Ambulance Service, and Emergency Management Queensland.	Response: Refer to Supplementary EIS Volume 1, section 23.8.
47-11	Department of Emergency Services (now Department of Community Safety)	Issues of concern of ERAP are as follows: • Site access and egress; • Construction staging; • Road closures and traffic hazards • Storage and location of hazardous goods on-site; and • Other concerns as identified	Response: Refer to Supplementary EIS Volume 1, section 23.8.
48-1	Department of Communities	As far as the EIS for this project is concerned, I think there is a more than adequate analysis of our social/community issues and interests (particularly in Volumes 1.2, 2.2 & 3.2: Chapters 4, 21 & 26).	Noted
48-2	Department of Communities	Referring to my letter of September 12, 2008, most of the concerns I highlighted seem to be addressed in one way or another throughout the Chapters mentioned above.	Noted
48-3	Department of Communities	However, there is one concern which was not specifically or definitively addressed, though it may ultimately be more of a concern for the Queensland Police Service, as follows: • a workforce social order/control analysis in terms of any potential negative impact on the social life and order of nearby townships or communities. However, by inference, I'm assuming the reason it was not so addressed, is because it is deemed that the bulk of the single workforce will, not only be residing in the on-site accommodation village, but also provided with entertainment and access to alcohol within these confines, thereby either curtailing external social excursions or mitigating the impact of these.	Response: Refer to Supplementary EIS Volume 1, section 21.8.
48-4	Department of Communities	Perhaps some clarification of this aspect is indicated; otherwise our 'State interests' are largely subsumed within the scope of the material adduced in the EIS. Please feel free to contact me on 4699 4211 or at andrew.darbyshire@communities.qld.gov.au if you need any clarification on the above points.	Noted
49-1	[redacted]	The 30 year life of a coal mine compared to many times. 1000 years developed on prime grazing and farming land.	Response: Refer to Supplementary EIS Volume 1, sections 22.5 and 22.6.
49-2		The chosen lifestyle of contented residents.	Response: Refer to Supplementary EIS Volume 1, section 21.6.
49-3		Access to Wandoan by the closure of roads.	Response: Refer to Supplementary EIS Volume 1, section 6.6.2
49-4		Grosmont School.	Response: Refer to Supplementary EIS Volume 1, section 21.6.
50-1		My name is Lee McNicholl and I am writing to forward my submission for the Xstrata Wandoan Coal Project EIS. My wife and I operate a sizeable sustainably managed grazing and grain growing family farm approx 80 klm from the proposed mine site. I have a Bachelor of Veterinary Science from the University of Southern Queensland (1968) and a Master of Science in Range Management from the University of California Berkeley (1970). I have practised as a cattle vet for 38 years. We have three children that have graduated as Environmental Engineers. The whole family has supported the Landcare Movement from its inception. I believe my life's experience and supporting arguments/documentation will hopefully convince your superiors that Mines Don't Go Where Food Can Grow and request therefore that the Queensland Minister for Mines and Energy refuses to issue the Wandoan Joint Venture (WJV) a Mining Lease (ML) on Mining Lease Applications (MLAs) 50229,50230,50231.	Noted
50-2		Summary of flawed EIS assumptions supporting my request: • The EIS underestimates the areas of good quality agricultural land permanently reduced in productive capacity after rehabilitation (“rehab”).	Response: Refer to Supplementary EIS, Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8 and 22.5
50-3		• This results from underestimating the initial land classification capability and overestimating it's post “rehab” potential.	Response: Refer to Supplementary EIS, Volume 1, sections 9.3.7, 9.5.6, 9.5.7, 9.6.5, and 9.6.8.
50-4		• Substantial areas will suffer a 50% or greater permanent reduction in their inherent capacity to produce food for a hungry world.	Response: Refer to Supplementary EIS, Volume 1, sections 22.5.6 and 22.7.
50-5		• The EIS admits to increased risk from salinity and erosion from disturbance of sub-soil and over burden. This is unacceptable.	Response: Refer to Supplementary EIS, Volume 1, Chapter 9, section 9.5.4.
50-6		• Rehabilitation protocols are inadequate in the light of experience in the Hunter River Valley experience (see attachment).	Response: Refer to Supplementary EIS, Volume 1, section 25.4.7.
50-7		• The EIS underestimates the damaging effects of blast vibrations, dust and noise on the nearby township of Wandoan.	Response: Refer to Supplementary EIS, Volume 1, sections 13.5.3, 15.5.3, 15.5.2, and 16.5.

Submission Number	Submitter	Submission	Response
50-8	[redacted]	• The EIS shows that the WJV's massive contribution to global Greenhouse Gas Production (GGP) is unacceptable.	Response: Refer to the Supplementary EIS Volume 1, section 14.8.
50-9		• WJV's GGP offset programme is wholly inadequate.	Response: Refer to the Supplementary EIS Volume 1, section 14.9.
50-10		I believe the WJV proposal fails to meet Ecologically Sustainable Development principles on two levels: firstly, through seriously reducing the nation's long term food production capacity through mining 11000 Ha of productive land; and secondly through virtually ignoring by way of token carbon offsets the impact of the global GGP that will be caused by burning the 1.2 billion tonnes of coal that will extracted from the development. Below I deal in more detail with my objections.	Response: Refer to Supplementary EIS, Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8, 14.8, 14.9, and 22.5.
50-11		Erroneous Land Classifications Excerpt is from VI-C09 Book 2 page 35. • The above Table uses the 5 Category System defined under 'Guidelines for Agricultural Land Evaluation in Queensland' (1990), Queensland Department of Primary Industries. An alternative 4 Category System (A-D) was used by the Taroom Shire Council Planning Scheme (TSCPS). The EIS notes that under the TSCPS almost all land within the project area, other than along creek lines, is classified as Class A.	Response: Refer to Supplementary EIS, sections 9.2.4 and 9.3.7.
50-11		• TSCPS Class A land is defined as Crop Land that is suitable for current and potential cropping with limits to production which range from none to moderate. While this might over estimate the land capability of some areas within the project boundaries, I believe the classifications in Table 9-10 wrongly over estimate the areas initially in Class 3 and 4. 1 believe that there are areas of Class 2 land ignored or incorrectly downgraded to Class 3. Likewise, I believe there are substantial areas of Class 3 land incorrectly described as Class 4. • The effect of these wrong classifications consequently allows reduced rehabilitation requirements by the WJV. This then compounds the potential reduction in long term food production on the 11000 Ha (approx) of mined area. • The EIS claims that initially "all land in the project area is considered Class 2 for beef cattle grazing" (Vol 1 -C09 page 18).	Response: Refer to Supplementary EIS Volume 1, sections 9.3.7, 9.3.8, 9.5.6, 9.5.7, 9.6.5, and 9.6.8.
50-12		• I believe using the 5 Category system to assess beef cattle production potential is inadequate and misleading and should be redone using the principles laid out in the attached reference. • See Stocktake -A Paddock Scale Grazing Land Monitoring and Management Package by Department of Primary Industry staff Aisthorpe, Paton, & Timmers. • I believe the application of this system could upgrade the initial classification and down grade the final "rehabilitated" areas	Response: Refer to Supplementary EIS, Volume 1, sections 9.2.4, 9.2.6 and 9.3.9, 9.5.7 and 9.6.8.
50-13		Inadequate Rehabilitation Procedures • EIS V1-C09 contains a number of references to the difficulties to the impossibility of returning the mined area to its original productive state and this is confirmed by the areas shown to be downgraded in Table 9-10. As stated above, I believe the extent of the downgrade has been underestimated for cropping and grazing. • The "rehab" performance of coal miners to date throughout Australia has been dismal when measured against their EIS promises. A good example is the seriously flawed "rehab" performances at the Ravensworth mine in the Hunter Valley. The failure there to replace the soil and subsoil profile correctly has destroyed the profile's micro climate and micro nutrient cycling system. This in turn has reduced Copper availability to grazing livestock, resulting in debilitating Copper deficiency syndrome.	Response: Refer to Supplementary EIS, Volume 1, section 25.4.7.
50-13		• V 1 -C09 also refers to the problems with salinity, sodic soils prone to dispersion and erosion, and soil Ph management problems. The problem of heavy metal build up in tailings dams and stockpiles while considered "manageable" still needs further study.	Response: Refer to Supplementary EIS Volume 1, section 11.6.2.
50-14		Inadequate assessment of Impacts on Wandoan Town and Population • Attached correspondence from Mr. L Batey who lives 7 km from Australia's biggest current open cut coal mine at Wilpinjong near Mudgee in NSW raises very concerning issues about damage to the local population's health and infrastructure. Rainwater tanks are being contaminated with lead and chemical laden dust, houses are suffering structural damage and seriously reduced real estate values as the locals are forced out and services are run down. The current EIS does not truthfully or adequately deal with these issues.	Response: Refer to Supplementary EIS Volume 1, Chapter 1 Introduction, section 1.5.7.
50-14		• The repeat failure of coal mining companies to live up to commitments of their EIS and subsequently approved EIAs, is documented in a PH.D. Thesis compiled in 2000 by Mr. M Falling. The Thesis is called: EIA promise and reality: A case study. • I believe the relevant Queensland authorities should read this before they accept any of the "promises" made by the WJV partners and be duly sceptical of their commitment to comply.	Noted
50-15		Conclusion The weight of evidence suggests that the WJV partners cannot meet the high environmental standards required to rehabilitate the approx. 11000 Ha of proposed mined area to its former food producing capacity. The destructive global greenhouse footprint of this 1.2 billion tonne mine is an anathema to those that support the lofty ideals of Economically Sustainable Development. I call upon the Minister for Mines and Energy to protect future generations and reject the proposal.	Noted
51-1	Taroom Shire Landcare Group	Integrated EIS Summary 8 Project Description 8.2 Operations 8.2.2 Temporary Road Closures and Realignments "A stock route is associated with the Wandoan- Jackson Road and will be re-established with the road relocation following consultation with Dalby Regional Council and Main Roads." Suggestion: What happens to the timber on this reserve, weed management, and the bridge?	Response: Refer to Supplementary EIS Volume 1, sections 17A.5.2, 18.7.2 and 18.7.3.
51-2	Taroom Shire Landcare Group	Suggestion: Includes the Black Ant Creek catchment action group projects.	Response: Refer to Supplementary EIS Volume 1, section 17A.5.2.
51-3	Taroom Shire Landcare Group	Suggestion: What revegetation / offsets will be made?	Response: Refer to Supplementary EIS Volume 1, sections 17A5.2 and 17A.6.1
51-4	Taroom Shire Landcare Group	8.2.4 Sustainability "Progressive disposal of coarse and fine rejects into the voids of already mined pits will be undertaken to provide an effective long term rejects storage option that does not sterilise future coal reserves, and allow for a reduced environmental footprint." Suggestion: How will this impact on the underground water flows? Will the regolith be put back in the same order (NB Salt bands)?	Response: Refer to Supplementary EIS Volume 1, sections 9.6.3, 10.5, 10.6.2, and 10.8.
51-5	Taroom Shire Landcare Group	10 Impact Assessment 10.3 Geology, Mineral Resources, Overburden and Soils 10.3.1 MLA Areas Overburden and interburden "Clay rich, slake prone rocks are present throughout the overburden and interburden" Suggestion: How long will the overburden be exposed? If material is exposed to excessive amounts of water, there will be significant problems with stability during rehabilitation. What happens to sub-surface hydrology with higher concentrations of salts.	Response: Refer to Supplementary EIS, sections 6.3.3, 9.5.3, 10.5 and 25.4.6.
51-6	Taroom Shire Landcare Group	The overburden has very low organic matter and nitrogen content. The pH of overburden was found generally to be alkaline.' Suggestion: What about the salt concentrations, and how much will be leached if slaking occurs. The very low organic matter means that there is very little resilience within the soil structure. Any mechanical disturbance destroys the soil structure.	Response: Refer to Supplementary EIS, Volume 1, section 9.5.3.
51-7	Taroom Shire Landcare Group	Soils "Proposed measures to manage erosion of soils, include reinstating any soil conservation measures, installing erosion and sediment control measures on disturbed natural reconstructed slopes, and minimising slopes and amount of areas cleared. Other mitigation involves avoidance of saline soils for topsoil use, selection of appropriate machinery, water and sediment controls to minimise compaction, and appropriate stockpiling, including planting vegetation on stockpiles and choice of topsoils." No mention of soil organic / carbon fraction. Re-establishing soil organic matter and humus would be much more effective than physical soil conservation works. Suggestion: Problems with avoiding saline topsoils. Often Chloride toxicity and sodium bulges occur at 20cm depth, and can be highly variable. How will these components of topsoil be managed?	Response: Refer to Supplementary EIS Volume 1, section 9.6.3.

Submission Number	Submitter	Submission	Response
51-8	Taroom Shire Landcare Group	GQAL "Based on the findings of the land suitability assessment undertaken for this Project, the distribution of GQAL differs to that under the Planning Scheme," Suggestion: Does the Dalby Regional Council endorse this? How is it possible to contradict or take no notice of an endorsed local government plan. These assumptions reduce the degree to which Xstrata will have to rehabilitate.	Response: Refer to Supplementary EIS Volume 1, section 9.3.7.
51-9	Taroom Shire Landcare Group	"final voids will be unsuitable for agricultural use being Class 5 for cropping and cattle grazing, and will be investigated for alternative beneficial uses such as wetlands." Suggestion: How much area, and how will this alter hydrology? Very limited detail on how wetlands will be established / maintained. True wetlands are actually very shallow, and occupy a specific place within the floodplain.	Response: Refer to Supplementary EIS Volume 1, sections 9.5.1 and 11.6.3 and 25.4.6.
51-10	Taroom Shire Landcare Group	10.4.1 MLA Areas and Pipeline Options "The potential effects of mining on coal seam groundwater users was determined to be limited to approximately 20 bores outside of the MLA areas. It is proposed to carry out further groundwater investigations and assessment as the Project design develops to confirm whether there is a potential to adversely impact these users. Suggestion: Which 20 bores and have the landholders been notified? There appear to be many missing when we look at the detail.	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
51-11	Taroom Shire Landcare Group	"Overall, the Project is expected to have negligible impacts on users and environmental values of groundwater from Great Artesian Basin and sub-artesian bores." Suggestion: We would like to see additional comments from the GAB Authority.	Response: Refer to Supplementary EIS, Volume 1, sections 10.3.2, 10.5.1 and 10.8.
51-12	Taroom Shire Landcare Group	10.5.1 MLA Areas "Mean annual flows from the MLA areas is approximately 9,000 ML/a, and makes up about 1.4% of the mean annual inflow to Glebe Weir on the Dawson River and less than 0.2% of the total mean annual flow at the Fitzroy River mouth". Suggestion: This is only the relevant contribution to the flow… Not the contribution to the sediment load. NRW and FBA (Fitzroy Basin Association) have calibrated models (Sednet, EMSS, E2 and waterCAST) that identified specific areas of concern in the Woleebee and Upper Dawson catchments. No reference was made throughout the document to the Central Queensland Strategy for Sustainability or the Dawson River Catchment Strategy. Both these plans were developed by the community to address specific catchment and NRM issues.	Response: Refer to Supplementary EIS, Volume 1, section 11.5.2.
51-13	Taroom Shire Landcare Group	Assessment of Water Quality "found the water quality environmental values to be relatively low, and indicative of a slightly to moderately disturbed system." Suggestion: Which environmental values were looked at. Guidelines used aren't necessarily suitable for this area which is characterized by highly intensive, episodic rainfall events.	Response: Refer to Supplementary EIS, Volume 1, section 11.2.2.
51-14	Taroom Shire Landcare Group	"Nutrient pollution is evident in the study area, with elevated total nitrogen and total phosphorus concentrations compared to guidelines. Given the nutrient pollutants identified and agricultural land use in the MLA areas, nutrient pollutants are likely to result from fertiliser application and other nutrient concentrating activities." Suggestion: Sources of this pollution??? This would be mostly natural, there isn't a lot of cropping land and standard agricultural practice doesn't include fertilization of pasture.	Response: Refer to Supplementary EIS, Volume 1, section 11.3.6.
51-15	Taroom Shire Landcare Group	Water Management "peak flood levels in Juandah Creek could increase by up to 300 mm during a one in a hundred year flood (1% AEP flood). At other locations, the modelling of the diversion design concept showed limited upstream increases in flood levels." Suggestion: How much area will this be and how much extra time will land be underwater after floods?	Response: Refer to Supplementary EIS, Volume 1, sections 11.5.3 and 11.6.4.
51-16	Taroom Shire Landcare Group	Suggestion: Will this mean that the highway will be cut?	Response: Refer to Supplementary EIS, Volume 1, section 11.3.4.
51-17	Taroom Shire Landcare Group	Suggestion: How will we get access to water quality monitoring sites established in 2002 through the Sediment Watch program?	Response: Refer to Supplementary EIS, Volume 1, section 6.6.2.
51-18	Taroom Shire Landcare Group	10.8.1 Greenhouse Gas Emissions The Project's "maximum annual full fuel cycle emissions (i.e. total Scope 1, 2 and 3 emissions which includes end-use of coal for production of electricity) are estimated to be approximately 49.9 Mt CO2-e per annum. Based on current data and technology, this estimate represents 0.17% of annual global human-induced, reported emissions." Suggestion: But how does this compare with the expected /potential emissions from the current agricultural land. What will be the net gain/loss for the community.	Response: Refer to the Supplementary EIS Volume 1, section 14.8.
51-19	Taroom Shire Landcare Group	"aims to accelerate the commercial deployment of carbon capture and storage technologies." Suggestion: Does this mean that carbon will be captured and stored underground at Wandoan? Will that require additional development and planning approvals?	Noted. Not an aspect of Wandoan Coal Project application.
51-20	Taroom Shire Landcare Group	"Key possible risks to mine operations may include reduced water availability, increased flood risk, increased soil erosion, increased slope failure and unsuccessful rehabilitation." Suggestion: What about increased intensity and severity of summer storms evident in long term trends in local climate.	Response: Noted and refer to EIS Volume 1, section 14.10.
51-21	Taroom Shire Landcare Group	10.11.4 Glebe Weir Raising "No rare or threatened species were confirmed within the Glebe Weir raising inundation area or the pipeline footprint although a number, including Athaxon hispidus, Livistona nitida, Rutidosis crispata and Thelypteris confluens were confirmed nearby. Eriocaulon carsonii (Salt Pipewort, Button Grass, also endangered) was found at the nearby boggomoss."	Noted
51-22	Taroom Shire Landcare Group	10.12.1 MLA Areas and Gas Supply Pipeline "Of the potential impacts on the creeks in the MLA areas, the diversion of creek channels, and the construction of creek crossings, which can affect fish movement, have the potential to result in the greatest localised impact to the aquatic environment."	Response: Refer to Supplementary EIS, Volume 1, sections 11.6.3, 17B.6.6 and 17B.6.7.
51-23	Taroom Shire Landcare Group	10.13 Waste Management "Assistance with the development of a new multi-user, municipal waste and recycling facility at a suitable location, adjacent to the mine site for disposal of general and domestic waste is being discussed Dalby Regional Council, in order to provide a long term solution to waste disposal in the Wandoan area." Suggestion: Suggest composting facility be incorporated? Landcare has expertise in a range of composting techniques that could be beneficial.	Response: Refer to Supplementary EIS, Volume 1, section 6.7.1.
51-24	Taroom Shire Landcare Group	9.21.1 MLA Areas "ensure the land is in a condition and suitable for final uses which satisfy community, agency and landowners expectations" Suggestion: What specific benchmarks for condition will be used.	Response: Refer to Supplementary EIS Volume 1, section 25.3.
51-25	Taroom Shire Landcare Group	4.2.9 Community Contact Points 4-4 Suggestion: Landcare listed as community contact point?	Response: Refer to Supplementary EIS Volume 1, section 21.8.
51-26	Taroom Shire Landcare Group	6.9.1 Environmental Considerations in Sustainability Biodiversity Offsets "detailed assessment of the characteristics and quality in terms of ecological value of the offsets compared with the areas to be disturbed. Such assessments will include reviews of foraging value, availability of habitat (e.g. roost trees), and physiological characteristics such as topography and soil type" Suggestion: Biodiversity offsets for "like for like". Will assessments be a true and accurate description of the vegetation that they will replace? Will they be kept in the surrounding area?	Response: Refer to Supplementary EIS Volume 1, section 17A.
51-27	Taroom Shire Landcare Group	Land Management "Land management within the MLA areas will be based on appropriate land management principles, such as erosion prevention, noxious weed and feral animal and bush fire control." Suggestion: Should Parthenium be specifically mentioned?	Response: Refer to Supplementary EIS Volume 1, sections 7.8 and 17A.5.2.

Submission Number	Submitter	Submission	Response
51-28	Taroom Shire Landcare Group	8.3.4 Contaminated land8-8 "In summary the results of the study indicate that a range of potentially contaminating activities has occurred, or currently occur on lands associated with the MLA areas, surrounding land areas, and the proposed gas supply pipeline corridor area. A site inspection and soil sampling program has been recommended in the technical report TR 8-1-V1.5 to confirm the potential extent of the contamination issues identified." Suggestion: Implies that the land is contaminated.	Response: Refer to Supplementary EIS, Volume 1, section 8.3.4
51-29	Taroom Shire Landcare Group	9.5.4 Soils Salinity "The use of saline CSM water for dust suppression on roads is unlikely to have a significant impact on the salinity of soils surrounding roadways due to the moderate salinity of the water (up to 4,000 mg/L total dissolved solids), the volumes of water that will be used for dust suppression, relative to other activities that will occur on the site." Suggestion: Cumulative salt, will have an effect.	Response: refer to Supplementary EIS Volume 1, sections 9.6.3 and 11.6.2.
51-30	Taroom Shire Landcare Group	10.2.1 Field Investigations "Property owners generally within 2 km of the MLA's were contacted to determine whether they had bores on their properties and if so, the bore's status, construction details and usage records."10-3 Suggestion: Were members in this area contacted and what was their experience? Potential to be a greater distance of impact to landholders bores than just the 2km area, and if bores are affected further than the 2 km are they not compensated because it is outside of the 2km area.	Response: Refer to Supplementary EIS, Volume 1, sections 10.8 and 21.8
51-31	Taroom Shire Landcare Group	"A number of bores listed on the NRW register could not be located." 10-3 Suggestion: "the hydrocensus recognised that the existing monitoring bore network, including the existing private bores, did not provide sufficient information to address all hydrogeological aspects of the Project and that further investigations were required." 10-3 How can the project proceed without further study? Human induced changes have a significant impact on the subsurface hydrology. This would be difficult for members to monitor and independently verify. Other water extraction measures not mentioned: sand traps and spear traps..	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
51-32	Taroom Shire Landcare Group	Concern: 10.3.2 Hydrogeology "Hydrographs of groundwater levels compared to rainfall in the short term (less than1 year) indicates little if any correlation." Suggestion: Is the length of assessment / monitoring long enough to make this kind of decision.?	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
51-33	Taroom Shire Landcare Group	"The environmental value of the groundwater associated with the Surat Basin is generally considered to be low due to low yields and poor water quality associated with these aquifers." Suggestion: Low and poor water quality – would NRW verify this statement?	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
51-34	Taroom Shire Landcare Group	10.3.3 Groundwater Use "Without knowledge of which aquifers are being accessed, additional information in the Groundwater Database such as water quality and water levels cannot be fully utilised nor can impacts from the Project on existing users be fully determined." Suggestion: Landcare doesn't have the capacity to monitor groundwater, although NRW has established a number of shallow groundwater bores they have not been tested.	Response: Refer to Supplementary EIS, Volume 1, section 10.8.
51-35	Taroom Shire Landcare Group	10.5.2 Potential Impacts Post-Mining "It is noted that the quality of water in the impacted aquifers pre-mining is generally poor and often unsuitable for beneficial uses such as stock watering and irrigation without mixing with other better quality water." Suggestion: Implies that none of the water from the groundwater source is of use? Is the water being currently used by landholders for stock water and is it more beneficial than stated?	Response: Refer to Supplementary EIS volume 1, section 10.3.3.
51-36	Taroom Shire Landcare Group	"Only bores that take water from the affected aquifers and are in closest proximity to the mine voids and spoil can expect to experience some a change in water quality."10-14 Suggestion: Is this only including bores in the 2km distance outside of the mining lease? Because if landholders further away experience a difference does this mean they do not qualify for any compensation or action to be taken?	Response: Refer to the Supplementary EIS, Volume 1, sections 10.6.2, 10.8 and 21.8.
51-37	Taroom Shire Landcare Group	10.6.2 Operations "Where the groundwater modelling or monitoring demonstrates that mining activities will have an unacceptable impact on the local shallow bores within the area surrounding the MLAs, the WJV proposes to consult with impacted users in relation to "make good" mitigation measures. Such measures may include, where appropriate, establishment of new bores, replacement or deepening existing bores, or providing an alternative water supply."10-15 Suggestion: Following on from the above comments, does within the MLA surrounding area only include the 2km area they talked about earlier? And what is the unacceptable level? What if landholder notices an impact but monitoring hasn't shown a difference, will the water supply be investigated and not just dismissed?	Response: Refer to the Supplementary EIS, Volume 1, sections 10.8 and 21.8
51-38	Taroom Shire Landcare Group	Figure 10-6-v1-3 "Minchley bore" Suggestion: Should read Hinchley Bore. Other known Community/Stockroute bores not listed on map. Unsure if they will be impacted, but perhaps they need to be included in the list. (see page 10-12)	Response: Refer to Supplementary EIS, Volume 1, section 10.3.3.
51-39	Taroom Shire Landcare Group	11.2.3 Conceptual Water Management System Design "Natural suspended solids concentrations in local soils are observed to be high (see TR 11-3-V1.5), however, if stored suspended solids concentrations are significantly higher than background levels due to the presence of dispersive clays in the overburden, flocculent may be added to sediment dams to treat the water before release."11-8 Suggestion: Which flocculent will be used and will it leave residue?	Response: Refer to Supplementary EIS, Volume 1, section 11.5.4.
51-40	Taroom Shire Landcare Group	11.2.5 Flood Impact Assessment 11-10, 11-11 Suggestion: Given the time we have to comment we are unable to reasonably assess the full flood impact. Is independent verification by Department of Natural Resources and Water possible.	Response: Refer to Supplementary EIS Volume 1, sections 11.3.4 and 11.6.4.
51-41	Taroom Shire Landcare Group	11.3.6 Surface Water Quality "The historical water quality values for pH, nitrate (NO3), nitrite (NO2), orthophosphate (PO4), total phosphorus (TP) and total nitrogen (TN) exceed ANZECC (2000) guideline values. This identifies the historical nutrient pollution in the Project MLA areas. The recent data recorded confirmed that the Project MLA areas have elevated nutrient (TN and TP) levels compared to guidelines, as recorded at Woleebee Creek (downstream), Mud Creek (downstream) and Juandah Creek (downstream). Given the nutrient pollutants identified and agricultural land use in the MLA areas, nutrient pollutants are likely to result from fertiliser application and other nutrient concentrating activities."11-23 Suggestion: Although Landcare has collected thousands of water samples we don't have sufficient time to analyse and assess comparisons with the data provided.	Response: Refer to Supplementary EIS, Volume 1, section 11.3.6.
51-42	Taroom Shire Landcare Group	11.3.6 "The daily and event water quality monitoring indicates high turbidity. This suggests that the catchment condition is somewhat degraded, and is likely to be impacted during heavy rainfall events."11-23 Suggestion: Implies that the water quality is that poor of quality that mining activities will not affect the water conditions? Do not agree, it could always get worse.	Response: Refer to Supplementary EIS Volume 1, sections 11.3.6, 11.5.4, and 11.6.1.
51-43	Taroom Shire Landcare Group	11.6.1 Surface Water Quality Weed Infestation "Measures to minimise weed infestation will include washdown of off-site equipment prior to use on site, ensuring only clean imported fills and soils are brought onto site, and appropriate application of herbicides."11-48 Suggestion: Should the mention of washdown of machinery and vehicles before departure be mentioned too, to prevent Parthenium seed spread?	Response: Refer to Supplementary EIS, Volume 1, section 17A.5.2.

Submission Number	Submitter	Submission	Response
51-44	Taroom Shire Landcare Group	13.7 Residual Impacts "Following mitigation, the residual impacts are anticipated to be as follows: • no significant impacts are predicted at sensitive receptors • dust deposition impacts to crops and plant photosynthesis outside of the MLA are predicted to be insignificant"13-33 Suggestion Not sure that the dust wouldn't affect the plants.	Response: Refer to Supplementary EIS, Volume 1, section 13.5.3 and 17A.4.6.
51-45	Taroom Shire Landcare Group	Triggers for Management Action "If blasting impacts at a sensitive receptor cannot be mitigated to comply with the Blasting Guideline, negotiation to purchase or relocation will be considered."14 & 15 Suggestion: What if blasting affects landholders/people where there is no sensitive receptor? Will they fix damage that is caused from blasting?	Response: Refer to Supplementary EIS Volume 1, section 16.6.2.
51-46	Taroom Shire Landcare Group	17A.4.3 Habitat Fragmentation and Barrier Effects "The loss of other woodland habitats within the study area will also contribute to habitat fragmentation in the study area. Although vegetation in many patches in the study area is of insufficient size to maintain viable populations, in many cases there may be only limited connectivity among the patches, given the extent of clearing and the distance to core areas."17A-12 Suggestion: There is existing corridors and connectivity, which will be affected by the clearing and removal of vegetation from riparian areas. The clearing will affect the populations of animals.	Response: Refer Supplementary EIS Volume 1, sections 17A.5.2 and 17A.6.
51-47	Taroom Shire Landcare Group	"Within the study area the vegetation/habitat is already highly fragmented and as a result will already be subject to significant edge effects such as weed invasion. It is therefore unlikely that the Project would significantly increase the overall extent of edge effects in the local area."17A-13 Suggestion: There are areas of vegetation of significance that is connected to other vegetation corridors that will be affected by the Project. The sheer size of the project and the extent of the clearing will affect the vegetation and habitat and will only increase the edge effects on what vegetation was left.	Response: Refer Supplementary EIS Volume 1, sections 17A.5.2 and 17A.6.
51-48	Taroom Shire Landcare Group	17A.4.5 Weeds and Pest Species "The most likely causes of weed dispersal associated with the Project include earthworks, movement of soil and attachment of seed (and other propagules) to vehicles and machinery. This may, in turn, reduce the habitat quality of the sites for threatened species. The majority of the vegetation within the study area, however, already has weed growth. Therefore, the overall extent of habitat modification is not likely to increase significantly."17A-14 Suggestion: There may be some weeds located in the vegetation, but the above may/can suggestion that Parthenium may be one of these weeds already found wide spread through the vegetation areas, which is not the case and needs to be dealt with to ensure the weed does not spread further.	Response: Refer Supplementary EIS Volume 1, section 17A.5.2.
51-49	Taroom Shire Landcare Group	17A.4.8 Significance of Impacts "These impact assessments conclude that the Project is not likely to have a significant impact on threatened species or communities, nor will it interfere with their recovery, assuming suitable mitigation measures are put in place as outlined in Section 17A.5."17A-16 Suggestion: This isn't necessarily the case, we don't have the time or expertise to fully assess this section.	Response: Refer EIS Volume 1, Technical Report 17A-1-V1.5 Terrestrial Ecology, Attachments G, H, I and J.
51-50	Taroom Shire Landcare Group	17A.5.2 Management of the Mitigation Process "A weed and feral animal management plan will be developed, including vehicle wash down procedures to limit edge effects such as the establishment of aggressive weeds, and the spread of annual and perennial exotic herbs. Methods to minimise the potential for the introduction and/or spread of weeds or plant disease will include, where appropriate, the following: □ Determination of the potential for the introduction of or facilitation of exotic, non-indigenous and noxious plants □ management process to identify origin of construction materials, machinery and equipment □ vehicle inspection points for weed free status on entering and exiting the Project area □ vehicle wash down protocols, in particular a protocol that all vehicles and equipment must be cleaned on entering the Project area, and the washdown water is managed to ensure it does not enter creek, other water ways or gullies."17A-1	Response: Refer Supplementary EIS Volume 1, section 17A.5.2.
51-51	Taroom Shire Landcare Group	Suggestion: Considering that there is parthenium located on the mine site, it would seem appropriate that all vehicles and machinery would be washed on arrival and before departure to ensure the spread of seed is eliminated. Where appropriate seems to leave a window of opportunity to not follow the washdown procedure if not seem appropriate. With parthenium on the site, all vehicles should be washdown before leaving contaminated.	Response: Refer Supplementary EIS Volume 1, section 17A.5.2.
51-52	Taroom Shire Landcare Group	17A.7 Conclusions "The impact assessments concluded that the Project was unlikely to result in a significant impact to any threatened species of plant or animal, RE or ecological community."17A-24 Suggestion: May not be a significant impact at the state level, but this project will impact on the only remnants left in the Grosmont area. Significant disruption to the linking corridors.	Response: Refer Supplementary EIS Volume 1, section 17A.4.1.
51-53	Taroom Shire Landcare Group	"The remnant vegetation along these drainage lines forms continuous linear patches that form part of a wider regional corridor network linking the Mt Oragon and Hinchley State Forests to the south east of the Study Area to Juandah Creek to the north east of the Study Area. This vegetation is also recognised as having regional significance (significant for biodiversity at the sub-bioregional scale) under the Environmental Protection Agency's Biodiversity Planning Assessment for the Brigalow Belt bioregion. Suggestion: When offsets are used how will they replace the above acknowledged corridors? Will there be a guarantee that these linkages will be put back, what happens to species migration during the operation of the mine? This section only mentions remnant vegetation, what about the scattered timber. GIS – get figures from SLATS to estimate the amount of woody vegetation.	Response: Refer Supplementary EIS Volume 1, sections 17A.4.1, 17A.4.8, 17A.5.2 and 17A.6.
51-54	Taroom Shire Landcare Group	"Rainfall at Taroom (the closest registered Bureau of Meteorology weather station) in the month prior to surveys, however, was almost twice the July average (Bureau of Meteorology 2008) Suggestion: .Why was Taroom used? Other stations at Wandoan and Nevassa have vastly different readings. The Taroom station wouldn't have recorded the 10 inches / hour events that have fallen within the WJV area in the last 5 years.	Response: Refer Supplementary EIS Volume 1, section 7.2.
51-55	Taroom Shire Landcare Group	17b.3.1 Aquatic Habitat "All sites surveyed within the MLA and gas supply pipeline study areas were scored as poor to moderate using the River Bioassessment Program habitat assessment protocol. Poor to moderate habitat assessment scores reflect low habitat variability, moderate to extensive bank erosion, and substrates dominated by finer sediments such as sand and silt."17B-8 Suggestion: Unable to comment on this section until we have additional information.	Response: Refer Supplementary EIS Volume 1, Chapter 17B.
51-56	Taroom Shire Landcare Group	17B.5.2 Vegetation Clearing and Earthmoving Increased Turbidity "Aquatic fauna communities of the study area are adapted to living in turbid water. Given these background conditions, small increases in turbidity would be unlikely to have a significant impact on aquatic ecology."17B-22 Suggestion: This may be the case but our research has shown that a small increase in turbidity is strongly correlated to an increase in other toxicants, heavy metals and nutrient loads. This will have a significant impact on ecology downstream in the Dawson and Fitzroy Rivers. Contact Landcare and the Department of Natural Resources and Water for a range of unpublished studies on water quality in the Dawson and River catchments.	Noted
51-57	Taroom Shire Landcare Group	19.6.2 At Site Treatments "Areas not used for mine pits should be managed as farm lands and the spread of weed species avoided." Suggestion: Parthenium mentioned, and prevention of weed spread, wash down plan followed.	Response: Refer Supplementary EIS Volume 1, section 17A.5.2.
51-58	Taroom Shire Landcare Group	26.3.1 Interactions of Environmental Elements in Volume 1 "Visual amenity Change in landform Local Long term (-ve) moderate Loss of vegetative cover Local Short term (-ve) minor" Suggestion: Significant loss of habitat trees and loss of endemic native species. No mention of seed collection or preservation of seeds within the topsoil	Noted

Submission Number	Submitter	Submission	Response
51-59	Taroom Shire Landcare Group	Land Use "Changes in land use have both beneficial and adverse cumulative impacts. Within the operational life of the mine, the negotiated purchase of land for mine development, temporary relocation of public roads and stock routes, relocation of public infrastructure including local power lines, and changes in land suitability and good agricultural land classifications from mining activities, have a moderate adverse and some beneficial cumulative impact on land use, as the duration of these activities lasts longer than three years."26-7 Suggestion: Not sure how mining agricultural land can be seen to change the land use to beneficial? Other sections have highlighted a 'downgrading' of land capability after rehabilitation. For this statement to be true it would have to be rehabilitated to the original quality before mining.	Response: Refer to Supplementary EIS, Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8, 22.5 and 26.3.1.
51-60	Taroom Shire Landcare Group	"Although land rehabilitation and revegetation will be undertaken, moderate direct impacts will remain beyond the life of the mine, as final landforms will include voids, levees, and creek diversions. Other cumulative impacts associated with land use will reduce to toward minor impacts, as agricultural activities recommence, and infrastructure, roads and stock routes reinstated where feasible." Suggestion: Not sure how other cumulative impacts can be classified as minor impacts. The agricultural land will not be restored to its original state nor can it be, so how can that be minor? This will result in long term loss in agricultural production and loss in an increase in velocity and erosivity of the creek.	Response: Refer to Supplementary EIS, Volume 1, sections 9.5.6, 9.5.7, 9.6.5, 9.6.8, 11.6.2, 22.5 and 26.3.1.
51-61	Taroom Shire Landcare Group	Suggestion: Woleebee creek diversion – is the information about flooding accurate. We are concerned about the linear 'drain' line shown on the map. This will result in an increase in velocity and erosivity of the water.	Response: Refer Supplementary EIS Volume 1, section 11.6.3.
51-62	Taroom Shire Landcare Group	10.12.1 MLA Areas and Gas Supply Pipeline "Of the potential impacts on the creeks in the MLA areas, the diversion of creek channels, and the construction of creek crossings, which can affect fish movement, have the potential to result in the greatest localised impact to the aquatic environment."	Response: Refer to Supplementary EIS, Volume 1, sections 11.6.3, 17B.6.6 and 17B.6.7.
51-63	Taroom Shire Landcare Group	"While the projects are being developed by different proponents and are the subject of separate assessment processes, the proposed construction periods are likely to coincide, which may result in a range of beneficial and adverse cumulative impacts."	Noted
52-1	Australian Government		Comments provided and being addressed through Australian Government process.
52-2	Australian Government		Comments provided and being addressed through Australian Government process.
52-3	Australian Government		Comments provided and being addressed through Australian Government process.
52-4	Australian Government		Comments provided and being addressed through Australian Government process.
52-5	Australian Government		Comments provided and being addressed through Australian Government process.
52-6	Australian Government		Comments provided and being addressed through Australian Government process.
52-7	Australian Government		Comments provided and being addressed through Australian Government process.
52-8	Australian Government		Comments provided and being addressed through Australian Government process.
52-9	Australian Government		Comments provided and being addressed through Australian Government process.
52-10	Australian Government		Comments provided and being addressed through Australian Government process.

Submission Number	Submitter	Submission	Response
53-1	[redacted]	The submitters, being a small third generation family owned grazing enterprise; do not have the resources to make a detailed or full response to the proposed EIS. We do however raise the following comments and issues on the adverse impacts of this proposal. It is submitted that if the Coordinator General approves the EIS the approval should be conditional upon the Proponent reaching agreement with the owners of a sensitive receptor outside the mining leases at which emission limits are predicted to exceed allowable limits.	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1, 6.1, 13.5.3, 15.5.3, 13.6.2 and 16.5.2.
53-2		Assumptions Made in EIS In numerous sections of the EIS, the authors have relied on the assumption that they will be either the legal owner or have the expressed permission or legal right over several properties, including areas that are not covered by mining leases, which at the date of the EIS they do not. Sections of the EIS relying on this assumption include: -Location of accommodation facilities, workshop areas and construction areas. -Closure of roads. -Construction of new mine access roads. -Location of rail spur, stockpile and wash plant. -Location of Power Station. -Location of dams, - Diversion of water flows and waterways.	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1, 6.1 and 6.3.2.
53-3		Noise In section 15 the EIS identifies noise pollution issues. According to the report areas surrounding the lease will be subject to constant noise pollution above the allowable 34dBA for daytime and 28dBA for evening and night. Included in this area is a residence occupied and owned by the two of the submitters (MLA374). Whilst the EIS identifies these areas it fails to address or resolve noise issues particularly regarding noise level likely to be experienced at both the residence of the first two submitters namely Avalon house, and at a residence owned by all four submitters namely Booral Homestead. Avalon house (MLA374) is not identified as a sensitive receptor in the noise technical report.	Response: Refer to Supplementary EIS Volume 1, section 15.3.2.
53-3		It is identified as a sensitive receptor in all other reports but is omitted either accidentally or deliberately from the noise report. As the noise levels at this occupied residence exceed the guidelines the EIS as it stands cannot proceed without an agreement being reached with the owners of this sensitive receptor. The existence of negotiations is not sufficient reason to ignore the impact on a sensitive receptor especially one that lies outside the MLA and as such cannot be acquired by any but commercial means. The noise levels likely to be experienced at Avalon house (MLA374) are between 35 and 40 dBA, (V1 t15 Noise Technical Report attachment D)	Response: Refer to Supplementary EIS Volume 1, section 15.3.2.
53-4		Blast Pressure The technical report on vibration and blast pressure Vi T16 Vibration Fig. 7-1 of the EIS identifies Avalon house (MLA374) a sensitive receptor as experiencing excessive blast pressure. This house is outside the MLA and as such cannot be ignored by the applicant. The EIS cannot be approved without agreement being reached with the owners of this sensitive receptor.	Response: Refer to Supplementary EIS Volume 1, section 16.5.2 and 16.6.2.
53-5		Lights and visual amenity Rural homesteads located within 1-2km of the MLA will most likely have a negative impact on their visual amenity and be affected by mine lighting at night. Avalon house MLA374 and Booral house MLA390 are listed as possibly needing some treatment to remove the visual impact of the mine V1 t19 Final VIA fig6-1.	Response: Refer to EIS and Supplementary EIS Volume 1, section 19.6.3.
53-6		Dust Excessive levels of dust will be generated that will affect the house at Avalon (MLA374). Once again the proponent has excluded the this sensitive receptor from its technical report but the site is affected by dust levels exceeding the recommended maximums. (V1 T13 final AQ figure 46 and figure 53)	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1, 6.1 and 13.3.4.
53-7		Water The dramatic changes being made to the creeks of the area upstream of the properties Avalon and Booral will change the flooding of substantial areas of these properties, Insufficient information has been supplied by the proponent in order to fully assess the impacts these changes could have on the use of these properties.	Response: Refer to Supplementary EIS Volume 1, section 11.5.3.
53-8		Paddocks may become unusable during summer due to risk of stock being trapped. The water quality of flows emanating from the MLA will become critical as most of the stock water for the two properties comes from flows that originate in the MLA.	Response: Refer to Supplementary EIS Volume 1, section 11.6.
53-9		The proponent intends to inflict serious adverse impacts on sensitive receptors at Avalon and Booral in the form of noise, lights, blast pressure, dust, loss of visual amenity and changes to watercourses. The existence of negotiations is not sufficient reason to ignore these negative impacts. Accordingly the EIS should not be approved until the existence of an agreement between the affected landholders and the proponent on all issues.	Response: Refer to Supplementary EIS Volume 1, section 6.1
54-1		From the very announcement of the project on 9 July 2007, I, as a community member, affected landholder and private citizen have become very cynical about the EIS process and as a result, our democracy as a whole. From the very beginning personnel employed by the proponent have used intimidation and fear to divide the community to ensure that a cohesive strategic attack cannot be made against the project coming to fruition. I shall endeavour to outline what I think has caused me to come to this disturbing position. When nominations were invited for the Community Reference Group (CRG), I put forward my name as 1) Representing the affected landholders through my position as duly elected chairman of the Wandoan branch of Agforce, and	Noted
54-1		2) Representing the interest of water users in the MLA through my position as director and secretary of the Juandah Water Board. I attended the inaugural meeting of the CRG as an observer as the proponent appointed an Agforce staff member as the representative on the group in my stead. Mr Rob Thatcher announced at this inaugural meeting that he would be chairman of the group. This appeared to me to be highly irregular but despite a number of requests by myself and the Agforce representative on the group that group meetings be open to the public as observers only, the meeting was informed by the chairman that I would not be attending any subsequent meetings of the group. It seems to me that although not operating outside the requirements of the Environment Protection Act, the proponent through its nominees has certainly gone against the spirit of the Act which aims to ensure open public consultation during the Environmental Impact Statement (EIS) review process. A more cynical person than myself would say that the group is merely a Public Relations exercise for the proponent.	Noted
54-2		From the very start the proponent through its nominees, has brow-beated and intimidated affected landholders by saying that they would acquire our land for market value plus 10% or off to the land court we would go to get compensation determined. Can a foreign national company acquire freehold land in this manner? At no time then, or even now, has the proponent through its nominees followed up by informing these affected landholders that the Land Court can only grant compulsory use of the section of their properties required for mining or mining related activities while awarding compensation for physical damage and loss of income. This uncertainty for our future has caused severe emotional distress verging on depression for a number of landholders. It is only due to the support or our families, friends and fellow community peers that we can look to the future with hope and ensure that common sense and the road to right will bring about a sensible and workable outcome to the EIS process.	Noted
54-3		The MLA covers some of the best brigalow country in the district. It has been generally accepted for 4 decades that cattle from Wandoan weigh heavier (i.e. superior meat yield percentages) than cattle from other areas due to the nature of the soils and the climate experienced here. Winter supplementation is rarely required for cattle in the district and the district is well known for the rapid response of pastures following rain compared to other districts. In the past the district has been a major wheat growing area and the EIS is sadly lacking, in assessing quantifiably, the long term negative effect on food production that the project will cause, as outlined in another submission that I am a co-signatory. In a demand driven global context where world wheat stocks are less than 30 days consumption, any destruction of food producing land is a major concern and should be dealt with comprehensively in the EIS. The boundaries of the MLA area are unclear and from declarations at public meetings by nominees of the proponent are not going to be as described in the draft EIS.	Response: Refer to Supplementary EIS Volume 1, sections 22.5.6 and 22.7.
54-4		The proponent and its nominees have shown little consideration for landholder rights in its exploration program. Intrusion into sensitive area with vehicles and drilling equipment with incomplete or non-existent wash down certificates and log-books, little or no compensation for damage to pasture and crops and general disrespect for our position as custodians of the land are some of landholder grievances which have not been dealt with adequately. Yesterday we found and photographed a Parthenium plant on Tamarra beside a track used by the proponent though its nominees, and a neighbour has found a number of Parthenium plants on his properly. all land that has been free of this intrusive weed in the past. Exploration holes have been drilled on land without a Notice of Entry (EPC).	Response: Refer to Supplementary EIS Volume 1, sections 6.3.5 and 17A.5.2.
54-5		1. I submit that because of the under-handed way that a foreign national company has tried to acquire freehold land supposedly for coal-mining, and the changing public opinion against large mining ventures destroying good food producing land, the Coordinator General should declare all compensation and land purchases for the project be determined by negotiated settlement with the affected landholders without recourse to the Land Court for determination.	Noted
54-6		2. I submit that because of major deficiencies and inconsistencies in the draft EIS as outlined in this and other submissions of which I am a signatory and co-signatory, the Coordinator General release the supplementary EIS for public scrutiny and allow 20 working days after the release of the supplementary EIS for public comment before granting approval of the EIS.	Noted

Submission Number	Submitter	Submission	Response
55-1	Juandah Water Board	Background The Board is constituted under the Water Act 2000 to administer and maintain works which supply water to the seven properties of the Board's Ratepayers within the gazetted Juandah Water Board Area. The Ratepayer's and contracted users' properties, shown as the hatched areas on Attachment A& hereto, are described as; Lot 34 on FT490 Lot 36 on FT493 Lot 45 on FT491 Lot 36 on FT575 Lot 31 on FT515 Lot 35 on FT987 Lot 38 on CP899702 Lot 46 on FT497, Lot 43 on FT495 and Lot 21 on FT493 are the properties supplied under contract with the Board. Two of the seven Ratepayers' properties are either wholly or predominantly outside the southern boundary of MLA 50229 as depicted in the Draft EIS — Lot 45 on FT497 is wholly out and Lot 38 on CP899702 is partly out. Lot 46 on FT497 which is supplied under contract is not affected by an MLA- please see Figure 10-6-V1.3 which is Attachment "B" hereto.	Noted
55-1	Juandah Water Board	Those three properties will continue to dpend on the Bore for their water if the Project goes ahead. The Bore itself, authorized under Water Licence no. 58133N, is inside but right on the southern boundary of the MLA 50229 as it is depicted in the Draft EIS - The Draft EIS fails to show the location of the Board's water reticulation pipelines within the proposed MLA 50229 (please see Attachment "B" on which we have sketched in the pipelines). The Bore site, Lot 56 on Plan FT987, is gazetted under the Land Act 1962 as a reserve for water supply purposes of which the Board is Trustee. The location of the bore is shown on Figure 10-6-V1-3 of the Draft EIS. The location of the proposed mine works relative to the Bore is shown in the Draft EIS at Figure 10-6-Sv1.3 (Attachment "B") and Figure 6-30-V1.3 (Attachment "C") on which we have marked the approximate bore location.	Noted
55-2	Juandah Water Board	1. It cannot be assumed that the boundary of MLA 50229 will remain as depicted in the Draft EIS, as the Proponent has stated that a number of properties located within it have been excluded, however the amended boundary as it currently stands has not been made public. Also, a substantial area of land including the Bore site and between the Bore and the proposed Mud Creek Pit, being not required for any mining purpose, cannot lawfully be included in a mining lease.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
55-3	Juandah Water Board	2. It cannot be taken for granted that all of the 5 Ratepayer properties wholly inside MLA 50229 (as depicted in the Draft EIS) will be acquired by the Proponent. Those Ratepayers or some of them may continue to own their land or part of it and therefore require continuing supply from the Board. The other two Ratepayers will require continuing supply from the Board.	Response: Refer to Supplementary EIS Volume 1, sections 1.2.1, 10.3.3, 10.6.2, and 10.8.
55-4	Juandah Water Board	3. Under the Mineral Resources Act 1989 ("the MR Act") the Bore site and the water reticulation pipelines (which as mentioned above the Draft EIS fails to show) are Restricted Land which, pursuant to Section 238 of the Act cannot be included in a mining lease unless their "owner" (the Minister for Natural Resources and Water) consents and that consent is lodged before the close of objections to the lease application.	Noted
55-5	Juandah Water Board	4. The Bore and associated equipment constitute a Commercial Site for purposes of the proposed environmental authority.	Noted
55-6	Juandah Water Board	5. Notwithstanding that the Bore constitutes Restricted Land, the Coordinator General should ensure the Bore site is excluded from MLA 50229 because — a. At least three of the current users will continue to depend on the Bore if the mine goes ahead. b. The Bore is located just inside the southern boundary (as depicted in the Draft EIS). c. The nearest proposed mine works (southern edge of Mud Creek Pit) would be approximately 1 ,700 metres away from the Bore, with no works or facilities in between. d. The Proponent has not demonstrated that the land at or near the site is required for the specified purposes for which, under the MR Act a mining lease may lawfully be granted. e. Continuation of the Bore and its water supply to district properties is a sustainable and vital community service which should in any event take precedence over short-term mining considerations.	Response: Refer to Supplementary EIS Volume 1, section 1.2.1.
55-7	Juandah Water Board	6. The Juandah Water Board asks that if the Coordinator General approves the EIS it be on condition that the Proponent must enter into an approved "make-good" agreement with the Board covering the necessary monitoring of bore capacity, measures to establish the cause of any damage to the water supply or quality (at the Proponent's cost) and measures to ensure in the event of mine-related damage that the Proponent makes good the supply if possible or compensates the Rate payers.	Response: Refer to Supplementary EIS Volume 1, sections 10.6.2, and 10.8.
56-1	[redacted]	I am a geologist who has worked on climate change and desert geology in South Australia for most of my professional life. This project will only increase the C02 content of the atmosphere. It is absolutely imperative that we cease using coal or exporting it. We are already seeing large changes in world climate which are affecting the weather conditions across Australia. There is evidence that the Greenland Icecap is unstable now: its demise would have the effect of plunging Europe into a mini-ice age before the earth continues to heat up.	Noted
56-1	[redacted]	All fossil fuel use throughout the world needs to cease as soon as possible. Personnel need to be retrained in renewable energy industries so that they will not be out of work. Initiatives to develop 'clean coal' technology are of no use in this time scale (though may be helpful in the future) - they will take some years to produce results, if any: we need to act now. Ignoring the huge consensus of scientific data is stupid beyond measure - I among others have been arguing this for thirty years now - we only have a short window in which to act, otherwise your entire industry will collapse in the next 50 years from the forcing factor of climate change and accompanying sea level rise and their social end environmental consequences.	Response: Refer Supplmentary EIS Volume 1, section 2.17.7.
57-1	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	Vol 1 10.22 Cumulative Impacts Due to the current economic downturn and associated job losses in the Queensland mining sector, the EIS would benefit from inclusion of a reference/s to a demonstrated effort to maximise employment opportunities for those workers recently displaced.	Response: Refer to Supplementary EIS Volume 1, Chapter 21 Social section 21.6.
57-2	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	Vol 1 12 Transportation The EIS would benefit from highlighting that this operation will use rail as the method to transport coal to market. Therefore there shouldn't be a significant adverse effect on the road network, other than those of the operational workforce who choose to commute to the operation worksite. This could be presented as a positive outcome.	Response: Refer to Supplementary EIS Volume 1, sections 6.5.2 and 12.4.2.
57-3	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	Vol 1 22 Economics 22.6.5 Implications for Business and Industries The Queensland Government has established six regions as Centres of Enterprise in key areas of industry strength. Under this initiative, the area where the proposed Wandoan Coal Project will be located is part of the Darling Downs and South West Centres of Enterprise region.	Noted
57-4	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	The region is focusing on opportunities from the Surat Energy Resources Province as one of the initial areas of focus under the Centres of Enterprise initiative. Energy developments in the region — coal and coal seam gas — are expanding rapidly, creating enormous potential for business development across the region. The Centres of Enterprise initiative aims to capture benefit for local businesses and communities from these significant energy and resource developments. An Action Plan has been developed in conjunction with regional stakeholders and provides a course of action for capitalising on the opportunities from the Surat energy resources. Over the coming months, actions will focus on developing local supply chains, addressing industrial land issues and business attraction.	Noted
57-5	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	A key element of the Action Plan is preparing local businesses to link in with significant projects, such as the proposed Wandoan Coal Project. Under Section 22.6.5 of the Environmental Impact Statement, the proponent commits to implement a tendering process for project construction and operation supplies and services to encourage participation by local business. The Department of Tourism, Regional Development and Industry is supportive of such a measure and where appropriate, may be available to provide advice or assistance in preparing and linking local businesses to these opportunities. This should also be a commitment required by the Project's contractors.	Response: Refer Supplementary EIS, Volume 1, sections 4.6.2 and 22.6.5.
57-6	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	Vol 1 26 Cumulative Impacts Demand for Housing The EIS would benefit from more detail on expected impacts on Chinchilla, Miles, and Dalby for those workforces choosing to live in these townships and commute to work in Wandoan. The EIS would benefit from further detail on the impact on increased rental prices. Consideration should be given as to whether this project will be the catalyst to drive rent up and force local people out of the community.	Response: Refer EIS Volume 1, Chapter 21 Social Technical Report TR 21-1-V1.5, section 5.17, and Supplementary EIS Volume 1, sections 6.6.1 and 21.6.

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57-7	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	Vol 1 28 Summary of Commitments and Mitigation Measures Social and Economic Social and Economic The following should also be considered as commitments by the proponent: • Provide accurate and timely predictive data on workforce numbers, location, and housing data. The proponent should also commit their contractors to supplying local and state governments this information. • It is noted that WJV will develop behaviour protocols etc for their staff. This should also be a commitment by their contractors on their staff.	Response: Refer to Supplementary EIS, Volume 1, Chapter 21 Social, section 21.8.
57-8	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	• The proponent should also require that their contractors procure/tender processes reflect the proponents commitment to procure/tender for Project construction and operation supplies and services to encourage participation by local businesses. • The proponent to commit to work with local and other community groups to address local cumulative impacts.	Response: Refer to Supplementary EIS Volume 1, sections 4.2, 4.6 and 21.8.
57-9	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	• The proponent to commit to showing leadership involvement in the community by addressing the local leadership groups identified under Sustainable Resource Communities Policy.	Response: Refer to Supplementary EIS, Volume 1, Chapter 21 Social, section 21.8.
57-10	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	• The proponent to support local government with timely and accurate information about impact of the operation on local roads. • The proponent to commit to work with local government as to location and management of work camps.	Response: Refer to EIS Volume 1, section 6.6.1, and Supplementary EIS Volume 1, sections 6.6.2, 12.7.1 and 21.8.
57-11	Department of Tourism, Regional Development & Industry (now Department of Employment, Economic Development and Innovation, Regional Development)	• The proponent to commit to work closely with surrounding local townships to monitor the impact of their workforces (and their contractors) aim to resolve issues of people relocating and then choosing to commute to the worksite. The proponent should support council to resolve road safety and service delivery issues.	Response: Refer to Supplementary EIS, Volume 1, sections 12.7.1 and 21.8.
58-1	Fitzroy Basin Association	Thank you for the opportunity to comment on the EIS for the Wandoan Coal Project. The Fitzroy Basin Association (FBA) is the leading community based organisation for sustainable natural resource management in Central Queensland. FBA is committed to long term sustainable use of our natural resources, and values healthy ecosystems, a strong regional economy and prosperous communities. Membership of FBA comprises a broad cross section of the community including representatives from sectors of mining, Landcare, conservation, education, research, and agriculture as well as representatives from Indigenous groups and local and Queensland Government agencies.	Noted
58-2	Fitzroy Basin Association	The Central Queensland Strategy for Sustainability — 2004 and Beyond (CQSS2), developed collaboratively by FBA with regional stakeholders, has provided the basis for a plan for management of our natural resources and environment, driven by community issues. The CQSS2 is endorsed by the community and accredited by both Australian and Queensland Governments. A copy of the CQSS2 is enclosed and this document can also be downloaded from our website, www.fba.org.au.	Noted
58-3	Fitzroy Basin Association	It is our belief that the abovementioned project will affect several targets set within the CQSS2. For this reason, FBA asks that impact on targets of the CQSS2 be addressed as part of the final Environmental Impact Statement. In addressing targets within the CQSS2, we ask that the proponent address at the very least, the specific targets mentioned overleaf.	Response: Refer to Supplementary EIS Volume 1, sections 11.6.1 and 11.6.2.
58-4	Fitzroy Basin Association	We trust our submission will be considered and that the EIS will be improved as a result.	Noted
58-5	Fitzroy Basin Association	Mining Target: R6 Reduce off-site and on-site impacts of mining operations within 10 years Comment: The proponent should provide information relating to how impacts of their on-site and off-site mining operations will improve upon current practice to aid in delivery of target R6.	Response: Refer to Supplementary EIS Volume 1, sections 3.3.5, 11.6.1 and 11.6.2.
58-6	Fitzroy Basin Association	Target: R7 No net decrease in water quality as a result of mining activity ongoing Comment: The EIS should provide information relating to how their mining activities will maintain current quality of surface waters within the region's creeks, rivers, Fitzroy River estuary, Keppel Bay and the Great Barrier Reef Inner Lagoon. If it is likely that water quality will decrease, the proponent should consider how off-site offsets can be arranged to negate this effect. This target is related to FBA's commitment to the Reef Water Quality Protection Plan, a joint initiative of the Australian and Queensland Governments, to meet its ten year goal of halting and reversing the decline in quality of water entering the Great Barrier Reef.	Response: Refer to Supplementary EIS Volume 1, sections 3.3.5, 11.6.1 and 11.6.2.
58-7	Fitzroy Basin Association	Targets M14 and A165: Full implementation of EMOS conditions for whole of mine life (ongoing) including cultural heritage management, biodiversity, landform stability and cover retention now and ongoing. Comment: The EIS should provide details on how the mine and associated activities will affect these matters and what offsets or other measures will be taken to minimise impacts and assist delivery of these targets.	Response: Refer to Supplementary EIS Volume 1, section 25.4
	Fitzroy Basin Association	Land Target: Aspirational target: Reduce unsustainable land management practices impacting on the region's water quality, biodiversity, soil and enterprise viability within 15 years. Comment: The EIS should include information relating to how the proponent will offset unsustainable land managment practices affecting hte project area's water quality, biodiversity and soils, and how the project area will be rehabilitated to ensure long term effects on water quality, biodiversity and soils are minimised.	Response: Refer to Supplementary EIS Volume 1, sections 9.6.5 and 25.7.
	Fitzroy Basin Association	Target: R1 Retain a minimum of 30% cover on 95% of all land in the region within 15 years (minimum 30% cover on 50% of all land within 5 years, 75% of all land within 10 years, and 95% of all land wihtin 15 years). Comment: The proponent should provide information relation to how mining activities will offset low groundcover within the project area while mining activities are underway and following rehabilitation	Response: Refer to Supplementary EIS Volume 1, sections 9.6.5 and 25.7.
58-8	Fitzroy Basin Association	Water Quality Target RA11: Cumulatively reduce sediment delivered to in-stream aquatic habitats by 4,100,000 tonnes over 10 years: Comment: The proponent should provide information relating to how mining activities will impact on the current sediment budget being delivered to waterways due to proposed mining activities. If sediment budgets increase, mine could consider offsets to counter impact on target.	Response: Refer to Supplementary EIS Volume 1, sections 11.6.1, 11.6.2 and 17B.6.
58-9	Fitzroy Basin Association	Climate Change Target M9: Practices and technology developed and implemented to minimise net greenhouse gas emissions within 10 years. Comment: The proponent should explain what practices and technology will be used to minimise greenhouse gas emissions and assist with delivery of this target.	Response: Refer to Supplementary EIS Volume 1, section 14.9.6.
58-10	Fitzroy Basin Association	Economy Target A261: All industries in the region to have a clear natural resource management policy incorporating commitment to continuous improvement and/or best management practices for local conditions within 5 years.	Response: Refer to Supplementary EIS Volume 1, section 6.9.
59-0	Queensland Police Service	Thank you for the opportunity to provide comment on the Wandoan Coal Project Environmental Impact Statement (EIS).	Noted
59-1	Queensland Police Service	This document has been reviewed by the Queensland Police Service, and in particular, by personnel from the Southern Police Region. The EIS has confirmed that Xstrata intend to initiate appropriate policies and initiatives to provide for the social wellbeing of Wandoan during the development of this project. The Service has no further comments at this time.	Noted
60-0	Environmental Protection Agency (now Department of Enviroment and Resource Management)	I refer to the request for submissions on the Enviornmental Impact Statement (EIS) for the proposed Wandoan Coal Projet. The EPA has reviewed the EIS documents and overall found the documents of a good standard. However, the EPA has identified areas where clarification of the project and its impacts are required and also for some matters where additional informaiton is needed to fully assess the project. Detailed comments are provided in the attachment.	Noted
60-0	Environmental Protection Agency (now Department of Enviroment and Resource Management)	The following comments are relevant to all four components of the project EIS - the mine, southern and western coal seam methane water supply pipelines and the Glebe weir.	Noted
60-1	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Environmentally relevant activities Issue: With regard to environmentally relevant activities (ERAs), the EIS does not address the regulatory requirements including the need for development approval for ERA activities off the mining tenement. Also, the proposed environmental performance of these ERA activities is not stated. Recommendation: The EIS must identify which ERAs are likely to require development approval (i.e. off the mining lease or transport easements), and provide details of the activities and the commitments made to achieve an acceptable level of environmental performance.	Response: Refer to Supplementary EIS Volume 1, Section 3.3.6

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60-2	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Rehabilitation and regeneration Issue: Details are required on reference sites for monitoring the success or otherwise of rehabilitation and revegetation of disturbed areas. The proponent should establish reference sites to provide benchmarks against which to measure the success and progress of rehabilitation activities. Recommendation: At least two reference sites for each ecosystem type being disturbed should be identified and described. Attributes of the reference sites relevant to determining progress with rehabilitation and revegetation should be documented prior to any works at the mine site.	Response: Refer to Supplementary EIS Volume 1, Section 19.6.3
60-3	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Aquatic Ecology Issue: The collection and interpretation of water quality data presented in both the Aquatic Ecology Impact Assessment reports and Environmental Impact Study volumes associated with the Mine Lease Area (MLA) and the Southern and Western Coal Seam Methane Water (CSM) supply options are not consistent with the Queensland Water Quality Guidelines (2006). The water quality parameters measured for the MLA and the CSM water supply options have been compared to Queensland Water Quality Guidelines (QWQG) values for upland streams in the central coast region. The methods used by the EIS for collecting and interpreting these data do not take account of notes attached to the QWQG values as follows: • Dissolved oxygen (DO) guidelines for freshwater should only be applied to flowing water, including those with significant subsurface flows. Stagnant pools in intermittent streams naturally experience values of DO below 50% saturation. • Flow conditions are a critical consideration in applying these guideline values and are highly relevant when considering any potential pulse inputs of pollutants. • The trigger and guideline values adopted for freshwaters in the QWQG are for the most part the default ANZECC 2000 guidelines. The QWQG acknowledge that where possible these values should be updated with local data. • Temperature varies daily and seasonally, it is depth dependent and is also highly site specific. It is not possible to provide simple generic water quality guidelines for this indicator. • Turbidity is likely to be influenced by proximity to obstructions including culverts and road crossings and hence some bias may have been introduced in sampling these locations	Response: Refer to Supplementary EIS Volume 1, Chapter 17B Aquatic Ecology, Sections 17B.2.3, 17B.6.3, and technical report STR17B-SV1.5 Sections 4.2.1.1, 4.2.1.2, 4.2.1.5, 4.2.2.1, 7.3, and 9.
60-3	Environmental Protection Agency (now Department of Enviroment and Resource Management)	A number of proposed mitigation measures and monitoring programs associated with the MLA and the two CSM water options have been developed on the basis of the interpretation of the water quality data and would also need to be reassessed (178.5.2, 17B.6.2). Recommendation: The existing water quality data collected and interpreted in both the Aquatic Ecology Impact Assessment reports and Environmental Impact Study volumes associated with the MLA and the two CSM water supply options need to be reinterpreted in a manner that is consistent with the Queensland Water Quality Guidelines (QWQG).	Response: Refer to Supplementary EIS Volume 1, Chapter 17B Aquatic Ecology, sections 17B.2.3, 17B.6.3, and technical report STR17B-SV1.5 Sections 4.2.1.1, 4.2.1.2, 4.2.1.5, 4.2.2.1, 7.3, and 9.
60-4	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The water quality objectives suggested in the EIS were not derived from reference data collected under normal baseflow regimes, as required by the QWQG. The QWQG states that for streams which experience extreme high or low-flow conditions, the monitoring techniques used need careful consideration if useful data is to be obtained. Recommendation: A water quality monitoring procedure should be developed that is based on appropriate water quality guidelines and uses reference/control sites. Monitoring of reference/control sites should commence as soon as practical and in advance of the construction phase of the project to enable a sufficient set of water quality values to be collected under different flow reference. Data derived from the procedure should be sufficiently robust to establish relevant objectives and trigger levels for management response.	Response: Refer to Supplementary EIS Volume 1, Section 11.6.1
60-5	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: Recommendations for mitigation measures associated with the construction of permanent creek crossings for pipeline constructions connected with the three water supply options are based on a Canadian code of practice (17B.6.3 & Appendix 17B-1- V2.4). No reference is made to how these measures comply with either AS2885 or the Australian Pipeline Industry Association Code of Environmental Practice. Recommendation: Mitigation measures for permanent creek crossing and other aspects of pipeline construction should be made consistent with A52885 and the Australian Pipeline Industry Association Code of Environmental Practice, which document the approach that should be taken when determining the optimal route selection as well as engineering standards that must be applied to the construction.	Response: Refer to Supplementary EIS Volume 1, Section 17B.6.7, and technical report STR17B-SV1.5 Section 7.7; and Supplementary EIS Volume 2, Section 17B.6.3, and technical report STR17B-SV2.5 section 7.3.
60-6	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Non indigenous cultural heritage impacts. Issue: Notwithstanding assessment in the EIS that there are no places entered on the Queensland Heritage Register or with potential to be entered, the proposal may have an indirect impact on two places identified as having potential State level cultural heritage significance: Juandah Homestead complex and the Wandoan railway complex. The impact on the later is expected to be minimal to nil but the impact on Juandah Homestead by the relocation of the Booral homestead and its meat house has not been adequately considered. The impact of this proposal has not been fully explored, and is not consistent with current best 'practice heritage conservation (see Article 9 and 9.3 of The Illustrated Burra Charter 2004:40) of retaining buildings in their original location with removal a last resort.	Response: Refer to Supplementary EIS Volume 1, Sections 20B.5.2 and 20B.6.
60-6	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Specifically the Bonhomme Craib & Associates (BCA) report does not provide sufficient detail on the thresholds of cultural heritage significance assessment applied to the Booral homestead and associated buildings to determine if it is of Local or State significance. Recommendation: The cultural heritage significance of the Booral Homestead and associated buildings should be established. A recommendation should be made as to which of the three options is preferred, the options outlined in the EIS being: (1) no action should be taken; (2) restore the Homestead in situ and use it; or (3) relocate the Booral Homestead to the Juandah homestead complex.	Response: Refer to Supplementary EIS Volume 1, Sections 20B.5.2 and 20B.6.
60-7	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Volume 1: Mining Areas and Surrounds Section 6 Project Operations Issue: Disposal sites for tailings and coarse rejects in the Austinvale Pit North and Austinvale Pit will be licensed by the EPA as regulated dams, just as if they were above ground tailings dams. Sufficient information on their design is required for the EPA to do this. Recommendation: Detailed information is required on the design and management, particularly of drainage water, of the disposal of the tailings and coarse rejects. How the proposed 'leaky dam' across the Austinvale Pit will be managed to prevent failure and contain tailings and decant water should be fully described.	Response: Refer to Supplementary EIS Volume 1, Section 6.4.4.
60-8	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: In addition to those identified in the EIS, it is stated that there are 15 threatened species of fauna considered likely to occur in the study area and surrounds based on the presence of suitable habitat. However, those 15 threatened species were not identified. Recommendation: The 15 threatened species referred to in the EIS should be identified and measures should be described that would ensure the animals are not present before habitat is disturbed.	Response: Refer to EIS Volume 1, Section 17A.3.6, 17A.5.2
60-9	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The EIS states that proposed mining operations at Frank Creek may not meet environmental legislative criteria for vibration, dust and noise. For operations at Frank Creek to be approved, the proponent will need to show that the mining operations can be managed to achieve industry best practice standards as well as the requirements of the Environmental Protection Act 1994. Proposals in the EIS that would allow damage from vibration to occur and then make good are not appropriate. Recommendation: The proponent should provide operating and other mitigating measures that would ensure operations at the Frank Creek deposit can meet statutory and current best practice standards for air, noise and vibration at nearby sensitive receptors.	Response: Refer to Supplementary EIS Volume 1, Section 6.3.2.
60-10	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The proposed Wandoan STP upgrade would increase the treatment capacity to 454kl/day, which equates to about 1800 equivalent persons. Under the Environmental Protection Regulation 2008 this would trigger the requirement for an approval as ERA63. Inadequate information is provided in the EIS regarding sewage treatment and disposal to assess and provide environmental conditions that would apply to this proposal. Recommendation: The EIS needs to provide sufficient information on the sewage treatment facility to ensure that air, water, land and odour issues associated with the facility can be managed. This would include a description of the waste streams from the facility and their management.	Response: Refer to Supplementary EIS Volume 1, section 11.4.2, and Chapter 27C.
60-11	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Section 11 Water supply and management Issue: For the proposed water course diversions, the EIS commits to establishing project-specific design criteria based on local geomorphic processes. Due to the number and extent of diversions proposed, draft design criteria should be provided now as part of the EIS to allow for the assessment of the proposed diversions. Recommendation: Project specific design criteria should be provided now for all major proposed water course diversions associated with the project.	Response: Refer to Supplementary EIS Volume 1, sections 11.2.3 and 11.6.3.
60-12	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Section 17B Aquatic Ecology Issue: The EIS identifies a potential minor risk that watercourse diversions and associated levee structures within the Mine Lease Area may increase upstream and downstream flood levels. There may also be impacts on the sustainability of the local drainage system through increased flow velocities. There is however no discussion regarding potential impacts of alterations to these flow regimes on the aquatic ecology of these water courses or those receiving the diverted waters. Water quality is discussed but no consideration or discussion is given to changes in the size and frequency of flow events and their potential to impact on aquatic habitats and associated biodiversity. Recommendation: The potential impacts of proposed watercourse diversions on aquatic ecology need to be identified and mitigation measures recommended.	Response: Refer to Supplementary EIS Volume 1, sections 11.6.6 and 17B.6.6.

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60-13	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Section 19.6 Visual Amenity — Mitigation Measures Issue: Regarding the plant species used for screening and landscaping, more details are needed on what species will be used for revegetation, screening and amenity plantings (especially if enough plants are not recovered from the clearing process). Use of exotic species should be avoided and where possible locally provenance native species should be used. Recommendation: Provide details as to what species will be used for revegetation and particularly amenity plantings, and where these may be obtained, giving preference to the use of native species.	Response: Refer to Supplementary EIS Volume 1, Section 19.6.3
60-14	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Environmental Management Plan (EM plan) General comments regarding the EM plan: Issue: A number of commitments to environmental performance made in the EM plan are not clear and do not include monitoring and control strategies that would ensure specific objectives are achieved. Also, details provided on a number of commitments are inadequate to assess the commitment as presentation of the details has been deferred to the future Plan of Operations. Recommendation: As the EM plan is a prerequisite to obtaining an environmental authority, a revised EM plan must be submitted that addresses the matters raised in these comments and also meets the requirements of s203 of the Environmental Protection Act 1994.	Response: Refer to Chapter 27A EM Plan of Supplementary EIS
60-15	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: There are inconsistencies between the description in the EIS and the EM Plan of the management of several issues, including the management of coarse rejects and tailings. In order for the EPA to assess the project and determine appropriate conditions that should be applied to the mining operation through the environmental authority, the EIS and EM plan should be consistent. Also, it is not useful or appropriate to defer environmental commitments and the details of management of tailings and other matters to the Plan of Operations as this information is needed in the EM plan. Recommendation: The EM plan should include correct details, appropriate environmental commitments and propose specific measurable and auditable commitments for managing a number of issues including coarse rejects and tailings and groundwater.	Response: Refer to Supplementary EIS, Volume 1, section 27A.2.3 and 27A.2.6.
60-16	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Groundwater Issue: Details are required of a monitoring program for quantity and quality of groundwater that could be affected by the tailings starter dam. The program should focus on the Austinvale North Pit and Austinvale Pits where tailings and coarse rejects are to be deposited. Recommendation: Details of the environmental values of groundwater and proposed management and monitoring activities should be described in the EM plan.	Response: Refer to Supplementary EIS Volume 1, sections 10.5.1 and 27A.2.3.
60-17	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: For the proposed operational raw water supply options the EM plan does not adequately address the generation of wastes, storage and other potential regulatory requirements for each source of water. Recommendation: The EM plan should detail water treatment requirements and identify the management of any wastes involved, propose environmental commitments and where possible, propose conditions to meet regulatory requirements.	Response: Refer to Supplementary EIS Volume 1, sections 11.2.3, 27A.2.3 and 27A.2.7.
60-18	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: For the proposed power supply option of using a standalone on-site power generation, the EIS has not adequately provided details of waste streams associated with the power generation proposal, nor have any environmental commitments been made. Recommendation: The EM plans needs to provide details of all waste streams specific to the power generation option (should it be the preferred source of power on site) and provide environmental commitments regarding its performance.	Response: Refer to EIS Volume 1, sections 13.5.3, 18.7.1 and 27A.2.2.
60-19	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The EIS reports that overburden samples tested were found to have low sulfur content with minor or no acid rock drainage potential. However, as all overburden and interburden has not been tested, there remains some possibility of mined material being potentially acid forming (PAF). Consequently, the EM plan, should include environmental commitments in relation to potential acid producing materials (e.g. see Chapter 28 page 28-6 regarding the identification and management of PAF material). Recommendation: The proponent should commit to the following management of overburden disposal: • all material must be progressively characterised during disposal for net acid producing potential (NAPP) and key contaminants; • characterisation must be undertaken at a minimum rate of 8 regularly spaced samples per 100,000 tonnes of tailings material; • records must be kept of the tailings disposal to indicate locations and characteristics of tailings stored within the tailings storage facility; • where the acid producing potential of tailings material indicates that the material is PAF, further kinetic testing should be conducted to establish oxidation rates potential reaction products and effectiveness of control strategies; and • maximum duration of surface exposure of potentially acid producing material to oxidising conditions is one (1) month.	Response: Refer to Supplementary EIS Volume 1, sections 9.6.2 and 27A.2.6.
60-20	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: Commitments are given for the preparation of the following environmental management plans: In mining areas: Weed and Feral Animal management Flora and Fauna management Biodiversity management Waste management Water management Air management and air quality Vibration management Dust management Noise management Erosion, salinity, compaction and topsoil use For the Southern CSM water pipeline Flora and fauna management Weed and feral management For the Western CSM water pipeline Weed and feral management For the Glebe Weir raising Sediment and Erosion Control Stormwater Management Waste Management Construction Management Weed Management Clearing Management Construction Habitat management Operational habitat management However, it is unclear when these plans would be produced, who will review them and how they will be implemented. An outline of the content of these plans should be prepared as part of the EIS and submitted for review by the relevant agencies.	Response: Refer to Supplementary EIS, Volume 1, Chapter 27A
60-20	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Recommendation: An outline of the content of these management plans, particularly any measurable and auditable commitments that can be made, should be provided as part of the EM plan.	Response: Refer to Supplementary EIS, Volume 1, Chapter 27A
60-21	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The EM plan lacks specific commitments and control strategies for progressive rehabilitation and proposed conditions in Schedule F. Current commitments are general and do not adequately describe the proposed progressive rehabilitation strategy for the life of the mine. Recommendation: Commitments for progressive rehabilitation should be detailed including specific times and areas. The proponent should consider the following aspects of rehabilitation in proposing their strategy: • Progressive rehabilitation must commence within two (2) years of when areas become available within the operational land. • Areas that are, or are becoming, available for rehabilitation must be identified in the Plan of Operations current at that time. • Complete an investigation into rehabilitation of areas to be disturbed and submit a report to the administering authority proposing acceptance criteria by <insert date>. The rehabilitation management plan must, at a minimum: a) map areas of disturbance and rehabilitation; b) develop rehabilitation objectives; c) develop design criteria for rehabilitation of disturbed areas; d) detail rehabilitation methods applied to areas; e) identify success factors for areas; f) detail future rehabilitation actions to be completed on areas; g) identify three (3) reference and three (3) rehabilitation sites to be used for developing appropriate rehabilitation criteria and for rehabilitation success monitoring; h) description of monitoring of reference sites and rehabilitated areas inclusive of statistical design; i) contain landform design criteria including end of mine design; j) detail how landform design will be consistent with the surrounding topography; k) provide schematic representation of final landform inclusive of: i. drainage design and features; ii. slope designs; iii. cover design; iv. erosion controls proposed on reformed land; l) specify future planned rehabilitation methods for disturbed areas;	Refer to Supplementary EIS Volume 1, sections 25.4.7 and 27A.2.7

Submission Number	Submitter	Submission	Response
60-21	Environmental Protection Agency (now Department of Enviroment and Resource Management)	m) explain planned native vegetation rehabilitation areas and corridors; n) describe rehabilitation monitoring and maintenance requirements to be applied to all areas of disturbance; o) itemise revegetation criteria; p) describe end of mine landform design plan and post mining land uses across the mine; q) specify spoil characteristics, soil analysis, soil separation for use on rehabilitation;	Refer to Supplementary EIS Volume 1, sections 25.4.7 and 27A.2.7
60-22	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The EIS reports that the findings of the land suitability assessment undertaken for this Project found that the distribution of Good Quality Agricultural Land (QGOAL) differs from that described in the relevant local government Planning Scheme. In the EIS, Class B agricultural land is considered to be a more appropriate classification for the lower slopes, and the floodplains and upper slopes being Class A, as shown by land suitability Class 4 and 3 respectively. Validation for these findings, as well as the implications for appropriate rehabilitation goals (as required in the environmental authority) should be provided. Recommendation: The EIS needs to provide validation of the GQAL reassessments and describe the implications for rehabilitation targets.	Refer to Supplementary EIS Volume 1, sections 9.3.7, 9.5.6, 9.5.7, 9.65, 9.6.8 and 27A.2.7.
60-23	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: According to the EIS (Vol 1 p.1 1-35) the operational raw water supply may contain up to 4,000mg/L TDS and that up to 400ML of this water could be stored on site in the raw water storage dam for use at the coal handing and preparation plant (CHPP). While the possibility of lining this dam is discussed in the EIS, the need for lining to prevent seepage has not been considered in the EM plan. Also, there is no assessment in the EM plan of whether the raw water storage dam may need to be regulated as a dam containing hazardous waste Recommendation: Details on the quantity and quality of raw water to be stored on the mine site should be provided. The proposed storage should be assessed for whether it should be regulated as a dam containing hazardous waste. In the EM plan, commitments should be made to construction and management measures appropriate to the quality and quantity of water to be stored.	Refer to Supplementary EIS Volume 1, sections 11.6.2 and 27A.2.3.
60-24	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The EIS concludes that for the mine operations, the assessment has determined that air quality exceedences may occur due to dust. A coupled weather forecasting and dust monitoring system is proposed that will initiate the application of management and mitigation strategies prior to the onset of an air quality exceedance. It is unclear what detection methods will be used to determine when trigger levels of air quality have been reached. Also, the effectiveness of proposed mitigation measures to ensure exceedences do not occur has not been assessed. Recommendation: The EM plan should provide measures to ensure the development and implementation of an air management and air quality monitoring plan that includes continuous real-time monitoring for suspended particulates. Trigger levels should be proposed. The effectiveness of management and mitigation measures to control emissions should be described.	Refer to Supplemementary EIS Volume 1, sections 13.6.2 and 27A.2.2.
60-25	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: While the EIS proposes noise limits that should be met by the project, it also states that these limits are likely to be exceeded. It is unacceptable that recommended performance levels for noise in the EM plan provide limits with which the project cannot comply. Recommendation: Having established the potential for non-compliance if the suggested noise limits in the EIS are adopted in the environmental authority, the EM plan needs to address the specific steps and measures that would be taken to prevent environmental harm, or in this instance, prevent non-compliance.	Response: Refer to Supplemementary EIS Volume 1, sections 15.6.2 and 27A.2.4.
60-26	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The EIS states that impacts from blasting are predicted to exceed the recommended EPA Guideline limits at a number of sensitive receptors. Proposed mitigation measures and the vibration management plan do not form part of the EM plan. Recommendation: The EM plan must contain the environmental performance commitments for blasting and vibration. Evidence should be provided to show that the proposed performance levels would not cause an environmental nuisance at a sensitive site. Proposed mitigation measures should be outlined in the EM plan.	Response: Refer to Supplemementary EIS Volume 1, sections 16.6.2 and 27A.2.4.
60-27	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: For the identified ERAs, the EM Plan does not specifically identify wastes associated with those ERAs, nor does it identify emission points or emission profiles. The ERAs identified in the EIS using the now defunct numbering system of the Environmental Protection Regulation 1998 are: ERA 7: Chemical storage ERA 11: Crude oil or petroleum product storing ERA 17: Fuel burning ERA 21 construction of a new transmission pipeline or a petroleum activity ERA 59Asphalt Batching ERA 62: Concrete batching ERA 72: Waste disposal ERA 15: Sewage Treatment ERA 21 construction of a new transmission pipeline or a petroleum activity ERA 62: Concrete batching ERA 16— Water treatment ERA 18— Power station (includes the burning of fuel) ERA 23 — Abrasive blasting ERA 24— Boiler making ERA 25 — Metal surface coating ERA 28— Motor vehicle workshop ERA 42— Mineral processing	Response: Refer to Supplementary EIS Volume 1, sections 3.3.6 and 27A.1.4.
60-27	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Recommendation: The EM plan must list ERAs using the new system in the Environmental Protection Regulation 2008. The EM plan must identify the measurable and auditable commitments associated with each ERA for the associated wastes including the identification of emission points (gaseous and liquid). For air and water emissions, the nomenclature and thresholds in the current Environmental Protection Policies should be used.	Response: Refer to Supplementary EIS Volume 1, sections 3.3.6 and 27A.1.4.
60-28	Environmental Protection Agency (now Department of Enviroment and Resource Management)	EM plan — recommended conditions The EPA will take the recommended conditions (as indicators of environmental performance and commitments) into account when (and if) an environmental authority is drafted. However, the EPA is not required to accept the recommended conditions provided in the draft EM plan. To assist in working toward an agreed suite of conditions the EPA offers the following comments on the recommended conditions in the draft EM plan. Absence of a comment on a draft condition should not be interpreted as an endorsement. Issue: Recommended conditions in the EM plan should not reiterate or paraphrase legislation. Recommendation: Delete the following conditions that reiterate or paraphrase legislation: (A-1), (A-2), (A-7) and (A-8).	Response: Refer to Supplementary EIS Volume 1, section 27A.2.1.
60-29	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The wording of Condition (A-6) would prevent the containment system from complying with necessary upgrades should AS1940 change. Recommendation: Change proposed condition A-6 to provide for potential changes in AS 1940.	Response: Refer to Supplementary EIS Volume 1, section 27A.2.1.
60-30	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: Conditions (B1-2) and (B1-3) make reference to Schedule B Table I; however, the content of the table does not identify contaminants, contaminant release parameters, stack height, efflux velocity and other design details. Recommendation: Schedule B Table 1 should be completed including the parameters listed above.	Response: Refer to Supplementary EIS Volume 1, section 27A.2.2.
60-31	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: Condition (B1-4) references Schedule B Table 2: Dust Monitoring and limits any dust issues to the currently identified nearest receptors, making no allowance for further development of receptors. Recommendation: Dust monitoring should not be limited to the receptors identified in Table 2.	Response: Refer to Supplementary EIS Volume 1, section 27A.2.2.
60-32	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The following conditions are unnecessary or not likely to be lawful: (B1-6), (B1-7), (B1-8) and (B1-9). Recommendation: Omit or revise the conditions.	Response: Refer to Supplementary EIS Volume 1, section 27A.2.2.
60-33	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: Conditions which are contingent on the Plan of Operations are not appropriate. Recommendation: The following conditions in Schedule C — Water should be amended or removed: (C1-I), (C1-2), (C1-3), (C1-5), (C1-6) and (C1-7).	Response: Refer to Supplementary EIS Volume 1, section 27A.2.3.
60-34	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: In Table 2742 and Schedule C. Table 6 suggests an EC trigger parameter of 996 uS/cm. It appears this figure was derived from data provided in the Water supply and water management technical report, Vol 1, Book 5B, Page 70 (point 3). However it is unclear if this was the case. Also in this data, the units for the EC values are not stated. Recommendation; Clarify the source of the trigger levels and goals for water quality indicators in Table 27A —2 particularly that for EC. Units for EC used in the Water supply and water management technical report should be stated.	Response: Refer to Supplementary EIS Volume 1, section 27A.2.3.
60-35	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: Condition (C1-5) indicates that there is a high likelihood that environmental and sedimentation dams on the project site will discharge. Recommendation: Water quality release limits should be proposed based on modelling that demonstrates that the proposed discharge is consistent with Queensland Water Quality Guidelines. Schedule C Table 3: Contaminant release requirements may need to be amended.	Response: Refer to Supplementary EIS Volume 1, sections 11.6.1, 11.6.2 and 27A.2.3.
60-36	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: A number of the proposed conditions concerning noise are not consistent with either conditions typically imposed prior to the revision of the EPP(Noise) or with the draft conditions developed for the new revision of the EPP(Noise) 2008. Recommendation: Recommended noise conditions in the current EM plan should be replaced with recommendations meeting current industry best practice and consistent with the EPA's noise conditions for mining and the requirements of the Environmental Protection Act 1994.	Response: Refer to Supplementary EIS Volume 1, section 27A.2.4.

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60-37	Environmental Protection Agency (now Department of Enviroment and Resource Management)	VOLUME 2: SOUTHERN CSM WATER SUPPLY PIPELINE Issue: While the commitment to revegetate exposed soils as soon as practical after works have been completed is supported, an indicative time period should be given. Due to deterioration of the seed bank and soil microbial activity in the time between stripping of the topsoil, replacement and revegetation, the length of this period may affect the practices needed to achieve effective stabilisation and cover. Recommendation: Provide a time period between works and revegetation. Implications for revegetation practices due to the time between stripping topsoil and revegetation should be discussed.	Response: Refer to Supplementary EIS Volume 2, Section 9.6.3
60-38	Environmental Protection Agency (now Department of Enviroment and Resource Management)	VOLUME 3: WESTERN CSM WATER SUPPLY PIPELINE Issue: Mention is made in s.17A3.4 on page 17A-7, that several exotic species are known to be in the region but were not encountered. These species should be identified in the text. Recommendation: Provide a list of the possible exotic species found in the region and procedures to be used should these species be encountered during pipeline works.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
60-39	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The EIS reports that three threatened species of plant listed under the Nature Conservation Act 1992 and four under the Environmental Protection and Biodiversity Conservation Act 1999 were identified from the desk-based assessment as potentially occurring within the study area or surrounds. These species should be listed in the text. Measures to manage these species, should they be encountered during construction and operation, should be described. Recommendation: The threatened species potentially occurring in the study area should be listed in the EIS report. Management of these species, should they be encountered, should be described.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
60-40	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The EIS acknowledges the need for detailed monitoring plans but does not provide them. Plans for monitoring biodiversity impacts should be described in detail in the EIS so they can be evaluated before project approval is given. Recommendation: Provide a detailed monitoring program in the EIS	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
60-41	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: Open trenches' In the construction section of the EM plan, no mention has been made of minimising the length of trench left open overnight to minimise the chances of fauna falling into the trench, possibly resulting in injury or stress. Also, any trench left open should have suitable exit ramps at each end for use by any fauna that falls into the trench. Depending on the number and species found in the open trench, suitable temporary habitat (hessian sacks, branches, etc) should be placed in the trench. This temporary habitat also assists in locating and retrieving any fauna caught in the trench. Recommendation: Amend the EM plan to include commitments to minimise the length of trench left open every night after the day's construction activities and to provide exit ramps and temporary habitat while the trench is open.	N/A. Relates to Volume 3 Western CSM Water Supply Pipeline, which no longer forms part of the Project.
60-42	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Volume 4 The Glebe Option Issue: The Terrestrial ecology impact assessment, including Attachment J — Matters of National Significance — Summary, does not include information on the significant boggomoss communities adjacent to the inundation area for the Glebe Weir Water option. While information on the distribution and significance of the boggomoss communities has been included in the EIS, there is no detailed technical evidence or reports detailing specific assessments/recommendations regarding the boggomoss communities. Additional information should be provided as these communities are part of the Commonwealth's Environmental Protection And Biodiversity Conservation Act 1999 listed Endangered "Community of Native Vegetation species dependent on natural discharge of groundwater from the Great Artesian Basin" and examples of the community are within and directly adjacent to the inundation area. Specific information should be provided on the distinctiveness, species composition, hydrology and patterns of persistence for these boggomoss communities in order to develop and evaluate measures to mitigate potential impacts.	Response: Refer to Supplementary EIS Volume 4, section 12.2.1
60-42	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Recommendation: Specific technical information should be provided in relation to local boggomoss communities including information on the distinctiveness, species composition, hydrology and patterns of persistence for the communities. This information should be used in the development of specific mitigation measures.	Response: Refer to Supplementary EIS Volume 4, section 12.2.1
60-43	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: Currently the construction of a levee bank on Boggomoss Creek is the only mitigation measure proposed to protect Boggomoss communities adjacent to the inundation zone for the Glebe Weir water option as indirect inundation is the only threat identified in the EIS. Changes to the local patterns of subsurface drainage, potential introduction of weeds associated with disturbance in constructing levees and potential competition from planted native vegetation buffer strips adjacent to the levee could all impact on the Boggomoss communities. More detailed technical information on the Boggomoss communities should be collated and presented as the basis for developing a broader range of appropriate mitigation measures. If satisfactory mitigation measures cannot be provided, consideration should be given to appropriate offsets in accordance with the Queensland Government's Environmental Offsets Policy. Recommendation: More detailed specific mitigation measures need to be provided in relation to other potential threats/impacts for the Boggomoss communities.	Response: Refer to Supplementary EIS Volume 4, section 12.2.1
60-44	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: Raising of the Glebe Weir will result in the inundation of 55.6 ha of endangered and of concern regional ecosystems. However, there is no assessment of whether this could be avoided or reduced. While justification for the weir per se has been covered in the EIS, details on measures that could be taken to reduce the area of clearing have not been provided. Recommendation: Opportunities to reduce the area of clearing (particularly in the vicinity of Cockatoo Creek) should be described. This would include a consideration of the frequency and period the raised weir is likely to be at FSL as well as the construction of more levees to reduce the area of inundation. Any proposed offsets will need to be in accordance with the Queensland Government's Environmental Offsets Policy.	Response: Refer to Supplementary EIS Volume 4, section 12.2.4
60-45	Environmental Protection Agency (now Department of Enviroment and Resource Management)	Issue: The EIS identifies a potential increased barrier to fish passage associated with the raising of the Glebe Weir as one impact of this water supply option. While the existing weir has for over 30 years been a barrier to the movement of fish and other aquatic animals (including turtles) no information is presented in either the EIS or the associated Aquatic Ecology Impact Assessment. Opportunities for enhancing fauna movement across the weir should be identified. Recommendation: Detail of the design and operation of an appropriate fish (and other fauna) transfer device should be provided as part of the mitigation measures for the Glebe Weir raising water supply option.	Response: Refer to Supplementary EIS Volume 4, section 13.2.3
61-1	Queensland Health	Thank you for the opportunity to review the Enviornmental Impact Statement (EIS) for the proposed Wandoan Coal Project. Queensland Health's assessment of the EIS has revealed the following potential public health impacts of the project (specific comments are provided in Attachement A):	Noted
61-1	Queensland Health	1. As acknowledged by the proponent, the Wandoan Coal project has the potential to have adverse environmental, social and economic impacts. Whilst the EIS has proposed strategies to mitigate the potential adverse health impacts, Queensland Health notes that not all of the potential adverse health impacts have been addressed. In particular, the EIS has not addressed measures to satisfactorily control dust, noise and vibration impacts. Further, the ability of the health service to cope with the increased demand has not been fully assessed.	Response: Refer to Supplementary EIS Volume 1, sections 13.6, 13.7, 15.6, 16.6 and 21.8.
61-2	Queensland Health	2. Wandoan and the other towns in the region are traditional rural communities. However, the proposed Wandoan Coal and Surat Basin Rail projects are substantial undertakings and will cause the towns to transition to more active mining communities. The cumulative impacts of the developments have the potential to permanently change the existing landscape as well as community lifestyle and values. If not managed correctly, the Wandoan Coal project could cause major environmental and public health impacts that will be difficult and costly to remedy.	Response: Refer to Supplementary EIS Volume 1, Section 21.8.
61-3	Queensland Health	3. The proponent has assessed the air quality and noise levels against the Environmental Protection (Air) Policy 1997 and the Environmental Protection (Noise) Policy 1997. Please note these policies have been superseded by the Environmental Protection (Air) Policy 2008 and the Environmental Protection (Noise) Policy 2008. The proponent needs to reassess air and noise emissions against the current objectives of EPP (Air) 2008 and EPP (Noise) 2008.	Response: Refer to Supplementary EIS, sections 13.2.1, 13.2.2, and 15.2.1
61-4	Queensland Health	It is recognised that there is a broad range of factors that have the potential to positively or negatively change the health status of workers, individuals and communities. These factors include demographic, social, economic, lifestyle and behaviours, access to services, and the natural and built environment. The consideration of these factors prior to the construction and operational phases of the project will minimise the impacts on any affected people and communities.	Noted
61-5	Queensland Health	Chapter 5 Project Construction Food Provision of food to the workforce must be in compliance with the Food Act 2006, administered by Local Government.	Response: Refer to Supplementary EIS Volume 1, Section 5.6.
61-6	Queensland Health	Chapter 2.1.2 Water Supply, Chapter 6 Project Operations (Section 6.9.1) and Chapter 11 Water Supply and Management Potable water and Recycled water It was noted that the 'construction management facilities" will include a temporary potable water supply and temporary wastewater treatment (until permanent connection to the Wandoan town facilities are completed). The proponent has also briefly identified the option to recycle water for dust suppression amongst other uses. The provision of drinking and recycled water by private providers is regulated by local government in terms of 'public health risk' and the Department of Employment and Industrial Relations - Workplace Health and Safety. In these instances, Queensland Health recommends that drinking water quality complies with the Australian Drinking Water Guidelines 2004, including recommendations to develop and implement a water quality management plan. Queensland Health also recommends that recycled water activities comply with the Australian Guidelines for Water Recycling - managing health and environmental risks (Phase 1) released by the National Environmental Protection Council, which provides guidance on water quality and management planning for recycled water. This document can be located at http://nepc.gov.au/ephc/water_recvcling.html.	Response: Refer to Supplementary EIS Volume 1, section 11.4.1.

Submission Number	Submitter	Submission	Response
61-7	Queensland Health	Chapter 13 Air Quality Airborne dust The predicted 24-hour dust level concentrations in Wandoan township exceed the PM10 air quality objective of 50 ug/m3 under all scenarios.	Response: Refer to Supplementary EIS Volume 1, Section 13.2.2.
61-8	Queensland Health	The proponent has assessed the air quality against the Environmental Protection (Air) Policy 1997. Please note this policy has been superseded by the Environmental Protection (Air) Policy 2008. Wandoan Coal project predicted air emissions must be reassessed against the updated air quality objectives in Schedule 1 of EPP Air (2008). The proponent must re-evaluate the proposed mitigation strategies to ensure the 24-hour PM10 air quality goal of 50 ug/m3 is achieved at all sensitive receptors, the accommodation facilities, and the Wandoan township.	Response: Refer to Supplementary EIS Volume 1, Sections 13.2.1, 13.2.2 and 13.5.3.
61-9	Queensland Health	The proponent states that there is an increased risk in the community of respiratory illnesses and symptoms (Section 13.5.3). Further details should be provided to quantify the risks and on the mitigation strategies to minimise these health risks to allow Queensland Health to assess the effectiveness of the strategies.	Response: Refer to Supplementary EIS Volume 1, Sections 13.2.2, 13.2.3, 13.3.2, 13.5.3, 13.6.2 and 13.7.
61-10	Queensland Health	An effective complaints management system is considered essential in managing dust issues.	Response: Refer to EIS Volume 1, section 13.6.2, and Supplementary EIS Volume 1, section 21.8.
61-11	Queensland Health	The permanent, fully serviced accommodation facilities, adjacent to the proposed Mining Lease Application (MLA) catering up to 1,425 beds is located approximately 500 m from the tailings Dam and about 1,000m from the Austinvale Pit. The very large accommodation facility has not been considered a sensitive receptor. The workforce living within the accommodation facility should be afforded an air quality that meets the EPP Air (2008) air quality objectives. Effective mitigation strategies must be described to ensure the air quality objectives are achieved at the accommodation facilities.	Response: Refer to Supplementary EIS Volume 1, Sections 13.5.3 and 15.6.2
61-12	Queensland Health	Chapter 15 Noise The proponent has assessed modelled noise levels against the Environmental Protection (Noise) Policy 1997. Please note this policy has been superseded by the Environmental Protection (Noise) Policy 2008. Wandoan Coal project predicted noise emissions must be reassessed against the updated acoustic quality objectives in Schedule I of EPP (Noise) 2008.	Response: Refer to Supplementary EIS Volume 1, Section 15.2.1.
61-13	Queensland Health	The proponent states in section 15.6.2 “Management actions will be triggered when a complaint is raised and the noise from the mining operations is above allowable noise criteria. Noise measurements will be carried out to identify the noise level emitted from the mine operation that is experienced by the sensitive receptor in question.” Queensland Health recommends that preventative management strategies are implemented prior to the criteria being exceeded, rather than waiting for the criteria to be exceeded; particularly as the proponent has highlighted that noise levels will exceed the criteria.	Response: Refer to Supplementary EIS Volume 1, Chapter 15 Noise, section 15.6.2.
61-14	Queensland Health	The proponent states also in section 15.6.2 “If the noise level emitted from the mine is identified to exceed the operational criteria by more than 5 dBA at a sensitive receptor, further measures (which may include offers of compensation) will be considered by the Proponent.” The proponent needs to outline the mitigation measures that will be implemented to reduce noise levels below the criteria. Noise attenuation at sensitive receptors (eg. noise attenuation at residences) has not been discussed as a mitigation measure.	Response: Refer to EIS Volume 1, section 15.2.1, and Supplementary EIS, Volume 1, sections 15.2.1 and 15.6.
61-15	Queensland Health	An effective complaints management system is considered essential in managing noise issues.	Response: Refer to the EIS Volume 1, Section 15.6.2, and Supplementary EIS Volume 1, section 21.8.
61-16	Queensland Health	The permanent, fully serviced accommodation facilities, adjacent to the proposed Mining Lease Application (MLA) catering up to 1,425 beds is located approximately 500 m from the tailings Dam and about 1 ,000m from the Austinvale Pit. The very large accommodation facility has not been considered a sensitive receptor. The workforce living within the accommodation facility should experience noise levels that meet the EPP (Noise) 2008 acoustic quality objectives. Effective mitigation strategies must be described to ensure the acoustic quality objectives are achieved at the accommodation facilities.	Response: Refer to the Supplementary EIS Volume 1, Section 15.3.2.
61-17	Queensland Health	Chapter 16 Vibration The proponent states that “adverse comments or complaints may be expected as the vibration levels approach the maximum guideline. Where activities are predicted that will generate values exceeding the maximum guideline, community consultation should be carried out” (Section 16.2.3 ‘Human exposure to vibration’). The proponent states “If blasting impacts at a sensitive receptor cannot be mitigated to comply with the Blasting Guideline, negotiation to purchase or relocation will be considered” (Section 16.6.2 ‘Mitigation measures — operations’) The proponent needs to provide more detail to allow Queensland Health to assess the potential impacts of ground vibration and airblast overpressure on sensitive receptors (eg. residences) during the day and night. The proponent also needs to provide more detail on mitigation measures proposed to ensure the criteria is achieved at sensitive receptors.	Response: Refer to EIS Volume 1, Section 16.6.2 and Supplementary EIS Volume 1, Sections 16.5.2 and 16.6.2
61-18	Queensland Health	Leichhardt Pit “Airblast levels” may be an issue in relation to the proposed Leichhardt Pit, to be situated 5 km to the north of Wandoan and to the south of the Wandoan Cemetery. While the EIS states conditions will be monitored in this pit, the proposed remedial actions have not been addressed to enable an assessment.	Response: Refer to Supplementary EIS Volume 1, Section 16.6.2
61-19	Queensland Health	Air Quality, Noise & Vibration from Frank Creek Pit operations Frank Creek Pit There are concerns in relation to the operation of the proposed Frank Creek Pit (coal mine area). This pit will be the closest to the town of Wandoan and, in parts, will be only 600 metres away from the Leichhardt Highway, which is immediately opposite Wandoan. The proponent states that “Under worst-case scenario atmospheric conditions, the dragline operations in Frank Creek Fit may not meet environmental legislative criteria for vibration, dust and noise”. The EIS indicates that monitoring of weather conditions, air quality and noise will be undertaken and if necessary, the operation of the drag line will be restricted and operations restricted to day time only. It will be essential for the proponent to undertake an effective consultation and complaints management strategy to ensure effective mitigation measures are implemented for sensitive receptors.	Response: Refer to Supplementary EIS Volume 1, Section 6.3.2, 13.4.6, 13.6.2, 15.4, 15.5.3, 15.6.2, 16.4, 16.5.2, 16.6.2, and 21.8.
61-20	Queensland Health	Chapter 21 Social Impacts Health services The proposed maximum workforce of 1,595 (1375 + 220 in Year 4) is about 2 to 3 times larger than the current local and nearby population. This is a substantial increase that will have significant impacts on services, in particular health services, and other social aspects of the town.	Response: Refer to EIS Volume 1, Section 23.8, and Supplementary EIS Volume 1, Sections 4.6.3 and 21.8.
61-21	Queensland Health	Xstrata have advised Queensland Health directly they have a Community Development Program partnering with community organisations. In this project, Xstrata are partnering with the Queensland Government (Education and Queensland Health). Following community consultation, Xstrata have made the following commitments (not formalised yet): • Renovate/rebuild facilities at the outpatients clinic (more consulting rooms, private and public to encourage private allied health professionals and visiting General Practitioners) • New residence for staff. It is understood that Xstrata will be formalising these commitments with the Minister for Health in February 2009 under a MOU, including Xstrata’s donation of $750,000 over 3 yrs for the outpatients’ clinic. Xstrata has indicated that these commitments will stand regardless of whether the Wandoan Coal Project proceeds. Xstrata’s commitments to improve the outpatients clinic and staff residence are acknowledged and welcomed. It is understood that further discussions will be held with the Toowoomba and Darling Downs Health Service District to implement these improvements.	Response: Refer to Supplementary EIS Volume 1, Sections 4.6.3 and 21.8.
61-22	Queensland Health	Mosquito Management There is no reference to the development of a “mosquito management plan” for the entire site and, in particular, for those areas where it is intended to pond significant volumes of water and if rainwater tanks are installed. A comprehensive plan to manage mosquitoes is essential given the close proximity to the town of Wandoan, the Leichhardt Highway and the number of itinerant workers/visitors who will be on site for varying periods of time. The Queensland Health document ‘Guidelines to minimise mosquito and biting midge problems in new development areas’ (http://www.health.qld.gov.au/phs/Documents/cdu/14804dmp.htm) may be of assistance. Periodic monitoring of ponded waters and rainwater tanks will determine if proposed control measures are effective in reducing mosquito-breeding numbers.	Response: Refer to Supplementary EIS Volume 1, Section 17B.6.8 and Supplementary EIS Volume 2, Section 17B.6.5.

Submission Number	Submitter	Submission	Response
62-1	Banana Shire Council	Council at its meeting held on 28 January 2009 considered a report provided on the Wandoan Coal Projects Environment impact Statement and resolved to provide the following comments. Most of the proposed Wandoan Coal Project (the Project) development would occur within the Dalby Regional Council area. That area abuts the southern boundary of the Banana Shire. Some important elements of the Project would either be located within Banana Shire or may impact on the Shire and its infrastructure. Those impacts, together with potential cumulative implications from nearby proposals, are important to Council. Accordingly Council now submits this response and would be pleased to discuss or expand on any matter raised. At the outset Council states that it does not oppose the proposed coal project, rather Council recognises that the project is a key piece of the wider regional development picture leading to overall benefits to Central Queensland, the State and the nation. This submission identifies matters which, in Council's view, require: clarification; correction; or ongoing study, applications and communication with this Council. The subject document is the Wandoan Coal Project Environmental Impact Statement Integrated EIS Summary December 2008 Volumes 1 to 4 (the EIS). This Council's interests relate to the first and last volumes. For the convenience of reviewers, Council's comments sequentially reference the relevant volumes and pages therein.	Noted
62-2	Banana Shire Council	Volume 1, Section 5, pages 7 to 11 - Under the legal framework, it should be noted that applications may need to be submitted to Banana Shire Council pursuant to the Integrated Planning Act 1997 (IPA), Building Act 1975 (OLD) and Council's Local Laws. Developments that may not be exempt under IPA and which fall within the Banana Shire Council area include: development associated with raising of the Glebe Weir (referenced throughout the documents. in particular Volume 4); accommodation, such as a workers' village or rental units in Taroom (Volume 1, Section 10.17 and 10.18 pages 36 to 39); expansion of the Taroom Airfield (Volume 1, Section 6, paged 12 and sub-section 8.23, page 17). Accordingly changes should be made to Figure 8: 'Outline of Federal and State Regulator Approvals Process for the Project' and Table 1: 'Summary of Legal Framework and Decision Making Authorities'.	Response: Refer to Supplementary EIS Volume 1, Section 1.5.1.
62-3	Banana Shire Council	Under Paragraph 5 of Section 5, page 8 - it is suggested that the relief from the referral and notification stages as may be recommended by the Co-ordinator General, should be clarified so as to avoid confusion, This could be by way of examples.	Response: Refer to EIS Volume 1, Appendix 3-1-SV1.4. Table item 33a.
62-4	Banana Shire Council	Volume 1, Section 6, page 12 — The EIS explains that the Wandoan Joint Venture (WJV) would assist Dalby Regional Council with certain infrastructure improvements, including the Taroom aerodrome. That facility is within the Banana Shire Council area, not the Dalby Regional Council area Banana Shire Council would welcome the upgrade initiative.	Response: Refer to Supplementary EIS Volume 1, Section 6.6.4
62-5	Banana Shire Council	Volume 1, Section 8, page 14 The EIS states (subsection 8.1.3) that if the 'Glebe Option is advanced then the construction workforce would be accommodated in Taroom. It then explains that the vacancy rate in Taroom is 27% . This might be misleading. The rental housing stock is very small and the claimed 27% vacant stock could quickly be fully taken up. Also there is no analysis of the appropriateness of the available accommodation for the workers. It is strongly recommended that the section on the housing capacity of Taroom for the potential workforce is reviewed.	Response: Refer to Supplementary EIS Volume 4, section 5.2.2
62-6	Banana Shire Council	Sub-section 8.1.4 - It is explained that the WJV would consult with the Department of Mains Roads and Dalby Regional Council regarding construction, traffic and road impact& Whilst those agencies would clearly have the major responsibility, Banana Shire Council seeks the WJV and Co-ordinator General's recognition of the potential impacts onto the Banana Shire road network especially if the Glebe Option is advanced. This point also relates to proposed safety and traffic management measures discussed under Sub-section 10.6 Transportation.	Response: Refer to Supplementary EIS Volume 4, section 9.1
62-7	Banana Shire Council	Volume 1, sub-section 10.3.3 - Comments are made about the soil classification of the land affected by the Glebe Option. The land is within the Rural Zone of the Taroom Planning Scheme and that part of the Taroom Shire Planning Scheme now under the jurisdiction of the Banana Shire Council. The soil classification of the 920 hectare area potentially inundated is both Class A and C (Volume 4, Section 2.2.1) and is ordinarily regarded as Good Quality Agricultural Land (GQAL).	Noted
62-8	Banana Shire Council	State Planning Policy 1/92, GQAL may be alienated from ongoing agricultural use if there is an overriding need. Whilst the EIS does not present an overriding need' case in detail, it is considered acceptable in this instance to cite the critical role the water storage would play in the delivery of major mining and related development.	Noted
62-9	Banana Shire Council	Various parts of Volume 1 and all of Volume 4 the option of the Glebe Weir Raising and related works/impacts are mentioned throughout the EIS. In point form Council's understanding, interests and concerns are: -It is recognised that significant site analysis and design is required before this option is advanced. This includes investigations into the matters raised by Minister Garrett under the Environmental Protection arid Biodiversity Conservation Act 1999. The imitative is best understood in the context of wider water supply planning, notably the Nathan Dam (currently subject to the preparation of an EIS). The Glebe Weir raising has been discussed for some time and Sunwater Limited has held info information/discussion sessions with landowners, the former Taroom Shire Council, and others.	Response: Refer to Supplementary EIS Volume 4, section 2.1
62-10	Banana Shire Council	- The development of the "Glebe Option" should incorporate on-going discussions with Banana Shire Council on its various consequences, including: - Road impacts, notably during the constrution period of both the dam raising and pipeline work. - Interim and long-term measures to protect and enhance the adjacent camping and recreation areas (controlled by Banana Shire Council). These measures, including a reinstated boat ramp, should not be at any cost to the Shire's ratepayers. - It is unclear where the contruction camp (Volume 4, Sub-Section 5.4.4, 1 & 2) would be located, and at what scale and time period. - It is unclear what the nature and scale of the "future fishway" would be (Volume 4, Sub-Section 1.3.2.1) - The implications for rural ratepayers, who may be directly and indirectly, impacted by the proposal. It is appreciated that Sunwater has conducted consultation sessions with landowners and a program has been proposed (Volume 4, Sub-Sections 1.5, 4.3 and other sub-subsections). - Environmental and waste management including potential use of Council landfill areas and other facilities.	Response: Refer to Supplementary EIS Volume 4, sections 5.3 and 15.1
62-10	Banana Shire Council	Council requests that a copy of the "Supplementary EIS" (Volume 1, Figure 8) is provided to Council when it is completed. Should you require further assistance in relation to this matter, please do not hesitate to contact myself on (07) 4992 9500.	Noted
62-11	Banana Shire Council	Council requests that a copy of the "Supplementary EIS" (Volume 1, Figure 8) is provided to Council when it is completed.	Noted