

21 June 2013

Department of Environment and Heritage Protection
Level 8, 400 George Street
BRISBANE QLD 4000

Attention: Mr Philip Rowland

Dear Philip

RE: Springsure Creek Coal Mine Project – Final Environmental Impact Statement

In response to your letter dated 10 April 2013 which provided the 49 submissions made on the draft Environmental Impact Statement (EIS), Springsure Creek Coal Pty Ltd (SCC) is pleased to provide the following:

- Final EIS document inclusive of amendments made because of the submissions, together with a section 66 EIS Amendment Notice; and
- Consultation Report including a written summary of the submissions and a statement of our response to the submissions. The Report also details the stakeholder engagement activities undertaken by SCC with each affected and interested person during the EIS process, in particular during the public consultation and response periods.

As specifically requested by the Department of Environment and Heritage Protection (EHP) we enclose:

- Two hard copies of the Final EIS
- USB card with:
 - PDF and Word versions of the Final EIS;
 - Word version of Final EIS showing tracked changes made to the draft EIS released for public consultation; and
 - PDF version of the Consultation Report.

For each remaining submitter besides EHP, SCC will provide a copy of our response to their submission and a link to the SCC Project website to download the final EIS document. All submitters are being notified today.

We trust this satisfies the information required under section 56 of the Environmental Protection Act (1994). We look forward to hearing from you regarding the next stage of the EIS process.

Yours Sincerely

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Michael Gray
Managing Director

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Springsure Creek Coal Mine Project

Response to Submission to EIS



Department of Environment and Heritage Protection

Submission number	Topic	Comment	Recommendation / Suggestion	Response
0.1	Chapter 1 - Introduction	<p>Note: Referring to EM Plan</p> <p>P.1-31, Section 1.5.1.2 Queensland Legislation – Environmental Protection Act 1994, wording of fourth paragraph</p> <p>The wording ‘draft’ EM Plan in this paragraph (and throughout the EIS) is incorrect. Please note there is no ‘draft’ or ‘final’ EM Plan as per the EP Act. The Act refers to either a submitted EM Plan or amendments made to an EM Plan.</p>	<p>P.1-31, Section 1.5.1.2 Queensland Legislation – Environmental Protection Act 1994, wording of fourth paragraph – delete where struck-through:</p> <p>“According to the Act, the Project is a non-code compliant Level 1 mining activity. A site-specific draft EM Plan is therefore required under section 201 of the EP Act and this forms the basis of the draft EA conditions.”</p> <p>Amend references to ‘draft EM Plan’ throughout the EIS</p>	EIS has been amended as advised. ‘Draft’ removed from reference to EM Plan.
0.2	Chapter 18 - EM Plan	<p>Issue: Conditions under the NC Act Section 18.5.9 - Ecology</p> <p>The EM Plan does not state conditions relating impacts on native flora and fauna protected under the Nature Conservation Act 1992 (refer to comment made earlier on).</p>	<p>Include a new heading of the EM Plan with the following conditions:</p> <p>“Conditions: Impacts on Native Flora and Fauna</p> <p>The proponent must comply with the provisions of the Nature Conservation Act 1992 particularly in regard to the following:</p> <ol style="list-style-type: none"> Where there is a requirement for clearing of plants protected under the Nature Conservation Act 1992: <ol style="list-style-type: none"> Clearing of protected plants must only occur in accordance with a clearing permit or an exemption under the Nature Conservation Act 1992. Offsets must be provided for the permanent loss (take) of near threatened, vulnerable and endangered plants to achieve an equivalent or better overall outcome at a regional scale in accordance with the Queensland Biodiversity Offset Policy 2011. Where the activities of the proponent may cause disturbance (i.e. tamper – damage, destroy, mark, move or dig up) to animal breeding places the prior approval of EHP must be obtained. It is unlawful to tamper with the breeding place of a protected animal without authorisation. Section 332(4) of the Nature Conservation (Wildlife Management) Regulation 2006 identifies that the removal of a breeding place may occur under an approved species management program (SMP) or a damage mitigation permit (DMP). The definition of breeding place is ‘a bower, burrow, cave, hollow, nest or other thing that is commonly used by the animal to incubate or rear the animal’s offspring’. Where there is a need to take fauna, the prior approval of EHP must be obtained. In relation to an animal – ‘take’ includes to hunt, shoot, wound, kill, skin, poison, net, snare, spear, trap, catch, dredge for, bring ashore or – aboard a boat – pursue, lure, injure or harm the animal; or attempt to do any of these acts. The proponent should act in accordance with the management principles outlined in Section 73 Nature Conservation Act 1992, especially s73(a)(i) which states: “...protected wildlife is to be managed to conserve the wildlife and its values and, in particular to ensure the survival and natural development of the wildlife in the wild.” 	The EM Plan (Section 18.5.9 - Ecology) has been updated to include this statement as requested

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0.3	Chapter 10 - Air Quality	<p>Issue: Air emissions inventory for offsite activities</p> <p>Chapter 10 Air Quality and Appendix A4-8 Air Quality Report</p> <p>The terms of reference (TOR) requirement (page 30) - air emissions inventory for offsite activities: section 4.6.2 of the project TOR requires that the proponent "Provides a separate air emissions inventory of any offsite activities directly associated with the project, including fugitive emissions such as from rail or road transport of product or waste." Such an inventory does not appear in Chapter 10 Air Quality, or in the supporting Air Quality Report at Appendix A4-8.</p>	A separate air emissions inventory of any offsite activities directly associated with the project, including fugitive emissions such as from rail or road transport of product or waste, should be provided.	The Air Quality technical report (Appendix A4-8) has been updated to include an off-site emissions inventory. It should be noted however that EIS is for the mine only. Impacts associated with the transport corridor will be addressed in a separate approvals process.
0.4	Chapter 10 - Air Quality Appendix A4-8 Air Quality Report	<p>Issue: PM10 monitoring for compliance reporting</p> <p>P.10-34 Section 10.2.8.3 Monitoring and Complaint Register</p> <p>Air quality monitoring is to "... be undertaken using a real-time dust monitor such as the Protinus 1000. "so that "Real-time monitoring will allow air quality criteria to be immediately correlated with on-site activities..." The use of the Protinus 1000 (or the EVM-3 used to measure background PM10 concentrations) is not covered by an Australian Standard. As such, the monitor(s) could not be used for PM10 compliance reporting purposes.</p>	That where PM10 monitoring is to be undertaken for compliance reporting purposes, a monitor that is approved for the purpose be nominated and used.	SCC will undertake air quality compliance monitoring. This will be a combination of real time and dust deposition monitoring using monitors that provide for the best environmental outcome, as agreed through consultation with EHP.
0.5	Chapter 11 - Noise	<p>Issue: Rating background noise levels</p> <p>Section 11.3.3, Table 11-2 Rating background noise levels</p> <p>In Table 11-2 of Section 11.3.3, the rating background noise levels are derived from the measurement made and shown in Appendix A4-10 for the period 1st to 8th December 2011. This data contains insect noise which has not been filtered.</p> <p>It is specified in the TOR that seasonal variation should be taken into account. No noise measurements were taken in the winter period. No mention was made of seasonal variation nor discussion of the expected variation in level for the Rating background noise.</p>	Provide comments on the anticipated variation in level of the rating background noise levels and amend Table 11-2 accordingly.	Noise monitoring has been carried out as part of the supplementary EIS during May 2013 to capture winter noise levels. Both Chapter 11 - Noise and Appendix A4-10 have been updated to show these results.



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0.6	Chapter 12 - Ecology	<p>Issue: NC Act requirements Section 12.2 Relevant Legislation and Policies and subsequent sections The EIS, in section 12.9.1, states: "It is not anticipated that permits will be required under the NC Act as the project will not directly impact on native vegetation or fauna species." This is incorrect as a permit under the NC would be required for any works that includes clearing of plants protected under the NC Act, and/or activities that may cause disturbance to animal breeding places, and/or and the taking of fauna under the Nature Conservation Act 1992 (NC Act) and section 332 of the Nature Conservation (Wildlife Management) Regulation 2006. For example, an authority under the NC Act is required for clearing of vegetation (e.g. for remedial works on subsidence cracks; as outlined in the EIS) or any other works that would potentially impact on vegetation which provides potential habitat for fauna, as it tampers with the breeding place of an animal.</p> <p>The proponent can apply to be registered for the generic least concern species management program through EHP Wildlife Management. For other EVNT, special least concern and colonial breeding species, a species management program would be required to be submitted to EHP Wildlife Management for consideration in relation to impacts to these species and appropriate mitigation measures where impacts can't be avoided and mitigated.</p>	<p>In Section 12.2 include a statement that outlines the requirements of the proponent to comply with the provisions of the Nature Conservation Act 1992 particularly in regard to:</p> <ul style="list-style-type: none"> • the clearing of plants protected under the NC Act • a clearing permit or an exemption under the NC Act • activities that may cause disturbance (i.e. tamper – damage, destroy, mark, move or dig up) to animal breeding places • the taking of fauna. <p>Refer to the NC Act and section 332 of the Nature Conservation (Wildlife Management) Regulation 2006 for further details and definitions.</p> <p>These NC Act requirements would need to be also addressed in the EM Plan.</p>	<p>The statement has been inserted as requested into Chapter 12 - Ecology (Section 12.2) and Section 12.9.1 has been reworded to more closely align with the provisions of the NC Act.</p>
0.7	Chapter 12 - Ecology	<p>Issue: Lack of field surveys Section 12.5.2 —Field Surveys It is noted that many of the field surveys were not carried within the project, but outside of the MLA. This issue is important as the mapping of regional ecosystems (REs) can not be made reliably from outside the MLA (i.e. the surrounding road networks) and potentially occurring listed threatened species could not be targeted (flora and fauna). These are requirements of the TOR.</p>	<p>Additional RE assessment, as well as flora and fauna surveying will need to be carried out throughout the project area and especially along the riparian woodlands. These should be carried out in accordance with the requirements of the TOR, including ground-truthing REs, targeted listed species surveys, summer and winter surveys and a trapping program.</p>	<p>Additional ecological baseline surveys have been carried out as part of the supplementary EIS process during June 2013. All properties within MLA 70486 have now been accessed at least once for the purposes of baseline studies. The findings of the additional 2013 ecology surveys are reported in an amended Chapter 12 - Ecology and Technical Appendices A4-10 and A4-11.</p>



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		<p>It is further noted, that the terrestrial fauna assessment (15.5.2.2) included three periods of surveying. An initial reconnaissance was primarily a planning exercise, but that which included bird surveying. Following was a 10 day survey 6-15 Dec 2011 hampered by inclement weather, and a 6 day survey 18-23 June 2012 which did not include Elliott trapping.</p> <p>It can be argued that the combination of inclement weather in the summer survey, the lack of trapping effort in the winter survey and the lack of fauna surveys across the project area limited the surveying success and subsequently the impact assessment as part of the EIS.</p>		
0.8	Chapter 12 - Ecology	<p>Issue: Hydrological flow P.12-22, Section 12.6 Existing Environmental Values</p> <p>The EIS states “The closest wetland protection area is located 2 km downstream from the project area along Springsure Creek” but no information on any changes that may occur to hydrological flows due to subsidence has been provided that demonstrates that the wetland of high ecological significance can maintain ecological functions before, during and after mine operation.</p>	<p>Recommendation: The project design and any changes to hydrological flows should be designed and managed to ensure that the wetland of high ecological significance can maintain ecological functions before, during and after mine operation. An impact assessment would need to be carried out which would state how potential impacts would be avoided, mitigated or offset.</p>	<p>Offsets for potential impacts on downstream vegetation communities are now included within the Biodiversity Offsets Strategy in set out in Chapter 12 - Ecology (section 12.9)</p>
0.09	Chapter 12 - Ecology	<p>Issue: Potential impacts and mitigation of subsided areas Page 12-92, Section 12.8.10 - Subsidence Management</p> <p>This section of the EIS (and EM Plan) does not address the possible physical impacts of subsidence on the land which may impact indirectly or directly on ecological values (aquatic and terrestrial flora and fauna). Issues not discussed, include:</p> <ul style="list-style-type: none"> • Lowering of bed and banks • Creation of in-stream waterholes • Changes to local drainage patterns • Incision processes • Stream widening • Erosion • Tension cracking through both shallow and deeper underlying strata, (including aquifers if 	<p>Include in the EIS and EM Plan sufficient information on the likely impacts of subsidence including changes on watercourses/drainage lines which may have direct or indirect impacts on aquatic and terrestrial flora and fauna.</p> <p>As a minimum, the EIS should assess the potential site specific impacts of:</p> <ul style="list-style-type: none"> • Lowering of bed and banks • Creation of in-stream waterholes • Changes to local drainage patterns • Incision processes • Stream widening • Erosion • Tension cracking through both shallow and deeper underlying strata, (including aquifers if applicable, if not applicable state so) • Root shear and loss of riparian vegetation in areas of deep subsidence • Impacts to vegetation due to prolonged inundation • Changes to water quality (surface water and groundwater) 	<p>Within Chapter 12 - Ecology, Section 12-7 (NB Table 12-19 Potential impacts to ecological values) and Section 12-8 have been updated to address ecological impacts as a result of watercourse subsidence. This is based on the physical impacts discussed in Chapter 8 Surface Water. These physical impacts will be managed according to DNRM’s Central Queensland Mining Industry Guideline for watercourse subsidence.</p>



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		<p>applicable, if not applicable state so)</p> <ul style="list-style-type: none"> • Root shear and loss of riparian vegetation in areas of deep subsidence • Impacts to vegetation due to prolonged inundation • Changes to water quality (surface water and groundwater). 	Describe site specific impacts of potential inundation on threatened REs, such as Brigalow. Include figures which show the areas of prolonged inundation superimposed over existing REs.	
0.10	Chapter 12 - Ecology	<p>Issue: Offset strategy not provided Section 12.9 Offsets</p> <p>Residual long-term impacts on state significant biodiversity values (SSBV) resulting from direct subsidence impacts and managing subsidence (e.g. remedial works; as outlined in section 12.8.10) within remnant REs and remnant riparian areas of Springsure Creek and other tributaries are not adequately addressed. For example, the EIS outlined that the current longwall orientation would result in longitudinal subsidence of 1.2 to 2.3 m of Springsure Creek and tributaries. The EIS acknowledges the presence of SSBVs within the project area (section 12.9.1.1), and according to the Queensland biodiversity offsets policy (BOP) the potential for residual impacts to those values would need to be assessed, avoided, mitigated or offset.</p>	Residual long-term impacts on state significant biodiversity values (SSBV) resulting from direct subsidence impacts and managing subsidence would need to be fully assessed (see comment made above). If mitigation of impacts would not be possible, an offsets strategy should be prepared, consistent with the BOP.	Chapter 12 Section 12.9 Offsets has been expanded to set out the process of developing, approving and implementing an offsets strategy, should such measures be found to be required.
0.11	Chapter 13 - Cultural Heritage	<p>Issue: Reference to Queensland Heritage Act 1992 missing P.13-4, Section 13.4 Non-Indigenous Historical Cultural Heritage</p> <p>Page 13-4 states “non-Indigenous cultural heritage sites and any development impacting these sites are subject to provisions of the Sustainable Planning Act 2009.” However, development can also be assessed under the Queensland Heritage Act 1992 as an Exemption Certificate Approval.</p>	The Queensland Heritage Act 1992 as well as the Sustainable Planning Act 2009 must be acknowledged as potentially having a regulatory control of development on QHR sites.	Sentence amended to: "Indigenous and non-Indigenous cultural heritage sites and any development impacting these sites is subject to provisions of the Sustainable Planning Act 2009 (Qld) (SP Act), as well as the QH Act where the development is assessed as an exemption certificate approval."
0.12	Chapter 18 - EM Plan	<p>Issue: Potential expansion of coal processing plant P.18-20, Section 18.2.8.6 Product Processing</p> <p>The EM Plan states that “if the coal requires beneficiation [...] then a coal processing plant will be required to remove the coarser fraction</p>	<p>If the project would not require a coal processing plant, delete all references made in the EIS and in the EM Plan.</p> <p>If the proposed project would need to include a coal processing plant, environmental assessment provided in the EIS and EM Plan would need to be updated to include potential impacts on air, noise, dust, water,</p>	<p>SCC does not seek approval for a Coal Processing Plant (CPP). All references to CPP have been removed. The EIS has been amended throughout to state the scope of the project as follows:</p> <p>"All run of mine coal would be transported off site without the</p>



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		<p>of any dilution.”</p> <p>If the proposed project would require a coal processing plant, it must be reflected in the EIS and EM Plan. A full assessment of any potential impacts would be required. Little information has been provided in the EIS regarding a potential coal processing plant and no environmental assessments have been carried out.</p>	<p>ecology and other relevant environmental values due to the construction and operation of a coal processing plant.</p> <p>Also, the EM Plan should clearly outline that the project has the potential to expand to include a coal processing plant. The EIS and the EM Plan must clearly state if the current application be seeking approval for a coal processing plant. This ensures the EM Plan has scope to include this activity and that conditions can be provided as part of the environmental authority (EA).</p>	<p>need for benefaction. It is anticipated that benefaction would not be required. In the event that a Coal Processing Plant was required then approval for this component would be sought through an appropriate approval process.”</p>
0.13	Chapter 18 - EM Plan	<p>Issue: Information on proposed pipeline P.18-22, Section 18.3.3.4 Offsite Supply – Water Trading</p> <p>Last sentence in paragraph states provision of a pump station connecting pipeline to the project will be required. Insufficient information was provided in the EIS.</p>	<p>EIS should identify if the proposed pipeline is part of the Springsure Coal Mine Project. If a pipeline is required as part of the project, environmental assessment provided in the EIS and EM Plan would need to be updated to include possible impacts on air, noise, dust, water, ecology and other relevant environmental values. The EIS and the EM Plan must clearly state if the current initial application be seeking approval for a pipeline. This ensures the EM Plan has scope to include this activity and that conditions can be provided as part of the environmental authority (EA).</p>	<p>Approval for the water pipeline and auxiliary infrastructure is not sought through the EIS. Its approval will be sought via the Sustainable Planning Act and a separate approval process to the mine. Impacts of this are thus not presented in the EIS.</p>
0.14	Chapter 18 - EM Plan	<p>Issue: Rehabilitation schedule and criteria P.18-30, Section 18.3.13 Rehabilitation and Decommissioning</p> <p>The submitted EM Plan identifies progressive rehabilitation will be undertaken and identifies rehabilitation objectives and options. However, no specific rehabilitation criteria were provided.</p>	<p>The EM Plan must identify the rehabilitation schedule for the initial period of progressive rehabilitation, as well as specific rehabilitation criteria to meet the objectives already identified in the EIS and EM Plan.</p>	<p>The rehabilitation schedule will be as per the mine plan. Rehabilitation will be immediate and progressive following each longwall that is extracted and included as part of decommissioning works.</p>
0.15	Chapter 18 - EM Plan	<p>Issue: Commitments to manage potential residual long-term impacts from subsidence Section 18.5.7 – Subsidence, but also Section 12.8.10 – Subsidence Management</p> <p>The current orientation of the longwalls in the project description will result in longitudinal subsidence of Springsure Creek and tributaries, modelled to range from 1.2-2.3 m over the whole project area (appendix A4-2).</p> <p>As noted in the EIS, the project area is largely comprised of land whose natural values are compromised by clearing and land-use practices including irrigated and dry cropping and grazing. The mapped remnant riparian vegetation within the project area therefore provides habitat values (albeit degraded) which are limited within the project area and surrounding subregions.</p>	<p>Include in the SMF commitments to managing potential residual long-term impacts from subsidence on biodiversity.</p> <p>Any remedial works (as outlined in Section 12.8.10, Ecology report) or SMF commitments made in the EMP would need to ensure that impacts of subsidence on biodiversity values will not be worsened. For example, the SMPs could employ low impact rehabilitation or remedial methods (e.g. the use of smaller machinery).</p> <p>This would allow that impacts due to subsidence will not be aggravated. Where impacts on SSBV cannot be avoided, an offset strategy would need to be provided.</p>	<p>Subsidence Management Plans, Species Management Plans and Vegetation Management plans will be developed prior to construction and operations. These plans will be designed to maintain the ecological integrity of the individual areas which may be impacted. It should be noted that it is SCC's intent to improve vegetation communities where possible. This will be done in consultation with landowners, DNRM and EHP. Long-term management options and offsets will be detailed in the rehabilitation plan, periodically reviewed and revised over time as new information becomes available that alter the predicted impacts.</p>

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		The submitted EM Plan includes as control strategies (18.5.7.5) the development of subsidence management plans (SMP) as part of a subsidence management framework (SMF). However, no commitments to manage potential residual long-term impacts from subsidence are provided on SSBV or any biodiversity values.		
0.16	Chapter 18 - EM Plan	Issue: Missing ERAs P. 18-35, Section 18.3.15 Environmentally Relevant Activities (ERAs) This section identifies the potential ERAs that the project may trigger. The EM Plan may identify scope for potential ERAs for the project but should also confirm and be clear on which ERAs will be sought to be authorised.	ERAs to be included in the application for an EA should be identified clearly in the EM Plan including the proposed thresholds for each ERA.	SCC seeks approval for all ERAs listed in the EM Plan. Chapter 18 EM Plan Section 18.3.15 updated to state the project WILL require the listed ERAs rather than MAY.
0.17	Chapter 18 - EM Plan	Issue: PM10 instrumentation and monitoring P.18-44, Section 18.5.2 Air Quality – Existing air quality, 4th paragraph. It is considered by EHP that the recorded results from monitoring reported in the EIS are not representative of “baseline” conditions. The monitoring was undertaken using an EVM-3 monitor. The EVM-3 monitor is similar to a DustTrak monitor and does not have USEPA equivalency/certification for PM10 monitoring. As such there is some question over the reliability of the PM10 results. In addition, some 56mm of rainfall was recorded during the monitoring period. As such, background PM10 concentrations - particularly during dry conditions, or peak agricultural activities times may be somewhat different to those presented in the submitted EM Plan.	P.18-44 Section 18.5.2 Air Quality – Existing air quality, 4th paragraph. Monitoring instrumentation should have USEPA equivalency/certification for PM10 monitoring. Monitoring to establish background levels should be undertaken during representative conditions at the site.	Baseline conditions have been established through a combination of desk top reviews of existing information and 2 rounds of field surveys. The data are considered valid and representative of the Project area. The rainfall recorded during site sampling has been taken into account by the air quality study and the derivation of Project-specific baseline criteria. Given rainfall will have suppressed ambient dust concentrations, the use of samples collected during rainfall provide a conservative level of dust relative to a higher concentration that would have been recorded during drier weather.
0.18	Chapter 18 - EM Plan	Issue: Update reference P.18-56, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air – Table 18-14 Update reference to Australian standard AS2923:1987 for meteorological data with AS3580.14-2011 "Methods for sampling and analysis of ambient air.	Replace AS2923:1987 with AS3580.14-2011 "Methods for sampling and analysis of ambient air. Part 14: Meteorological monitoring for ambient air quality monitoring applications."	The EM plan has been updated to reference AS3580.14-2011 Methods for sampling and analysis of ambient air.

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0.19	Chapter 8 - Surface Water	Issue: Reference unclear P.8-43, Section 8.5.5.2 Erosion and Sedimentation Potential Reference to an EHP guideline values in last sentence of paragraph is unclear as to what guideline values these are and what reference these are taken from.	For clarification, a specific reference should be provided as to the EHP guideline values referred to.	Chapter 8 - Surface Water Section 8.5.5.2 has been updated to include reference to EHP guideline Watercourse Diversions-Central Queensland Mining Industry, Version 5. Text amended as follows: "...these values are provided in the EHP guideline Watercourse Diversions-Central Queensland Mining Industry, Version 5 and are summarised in Table -10".
0.20	Chapter 18 - EM Plan	Issue: Air sampler and method P.18-54, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B4) Proposed condition (B4) includes reference to Australian Standard AS3580.9.6. This standard relates to the use of a PM10 high volume sampler method. High volume samplers require that a filter be changed after each 24-hour sampling period. The sampler (and method) do not allow for real-time monitoring/reporting.	For compliance-approved, real-time monitoring, AS3580.9.8-2008 "Methods for sampling and analysis of ambient air -method 9.8: Determination of suspended particulate matter-PM10 continuous direct mass measurement using a tapered element oscillating microbalance analyser" should be referenced.	SCC will undertake air quality compliance monitoring. Will be a combination of real time and dust deposition monitoring using approved monitors.
0.21	Chapter 18 - EM Plan	Issue: Air quality management plan P.18-54, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B6) Proposed condition (B6) - Air quality management plan - no timeframe for development and implementation is proposed	The Air quality management plan should be developed and approved before the project commences.	SCC will develop an Air Quality Management Plan (AQMP) prior to construction that will detail air quality objectives, potential impact management measures and reporting / adaptive response procedures.
0.22	Chapter 18 - EM Plan	Issue: Inconsistencies between B3 and B8 P.18-55, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B8) Proposed condition (B8) - the condition nominates PM10 only. This is not consistent with condition (B3).	Review inconsistency between condition B8 and B3.	There is no inconsistency: B3 relates to total particulates; B8 relates to PM10 only.
0.23	Chapter 18 - EM Plan	Issue: Location of air quality monitoring sites P.18-55, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Table 18-13 It would be useful to include a monitoring site which is upwind of the site in the direction of prevailing winds. Such a location could provide information about the particulate matter loads on winds approaching the mine. Those loads	Consideration should be given to the location of monitoring sites upwind of the prevailing winds.	The EM plan has been revised to include an upwind air quality monitoring station.

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		could then be subtracted from downwind locations to show the contribution from mining activities. This would also strengthen condition (B8) dot point 3.		
0.24	Chapter 3 - Description of the Project	Note: Incorrect reference Section 3.6.2 Building damage EHP has no jurisdiction on building damage.	Section 3.6.2 Building damage Delete reference to EHP in relation to jurisdiction on building damage.	Deleted.
0.25	Chapter 7 - Waste Management	Note: Script error P.7-23, Section 7.6.3.4 Off-site waste disposal, error in first paragraph, 5th line. Error script in reference to be corrected.	P.7-23 Section 7.6.3.4 Off-site waste disposal, error in first paragraph, 5th line "Their locations relative to the Project are represented in Table 7-5 and shown on Error! Reference source not found replace with relevant reference..."	This is a template error and has been amended in the document with the correct reference re-inserted and hyperlinked.
0.26	Appendix A4-10 Noise and Vibration Report	Appendix A4 – 10 Figure 2-2 Sensitive receptors Figure 2.2 does not have a scale.	Please insert a scale to Figure 2.2 and correct Figure Caption.	Scale and correct caption provided now on Figure 2-2 of Appendix A4-10

DRAFT FOR REVIEW

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0.02	Chapter 8 - Surface Water	Issue: Reference unclear P.8-43, Section 8.5.5.2 Erosion and Sedimentation Potential Reference to an EHP guideline values in last sentence of paragraph is unclear as to what guideline values these are and what reference these are taken from.	For clarification, a specific reference should be provided as to the EHP guideline values referred to.	Chapter 8 - Surface Water Section 8.5.5.2 has been updated to include reference to EHP guideline Watercourse Diversions-Central Queensland Mining Industry, Version 5. Text amended as follows: "...these values are provided in the EHP guideline Watercourse Diversions-Central Queensland Mining Industry, Version 5 and are summarised in Table -10".
0.03	Chapter 10 - Air Quality	Issue: Air emissions inventory for offsite activities Chapter 10 Air Quality and Appendix A4-8 Air Quality Report The terms of reference (TOR) requirement (page 30) - air emissions inventory for off site activities: section 4.6.2 of the project TOR requires that the proponent "Provides a separate air emissions inventory of any offsite activities directly associated with the project, including fugitive emissions such as from rail or road transport of product or waste." Such an inventory does not appear in Chapter 10 Air Quality, or in the supporting Air Quality Report at Appendix A4-8.	A separate air emissions inventory of any offsite activities directly associated with the project, including fugitive emissions such as from rail or road transport of product or waste, should be provided.	The Air Quality technical report (Appendix A4-8) has been updated to include an off-site emissions inventory. It should be noted however that EIS is for the mine only. Impacts associated with the transport corridor will be addressed in a separate approvals process.
0.04	Chapter 10 - Air Quality Appendix A4-8 Air Quality Report	Issue: PM10 monitoring for compliance reporting P.10-34 Section 10.2.8.3 Monitoring and Complaint Register Air quality monitoring is to "... be undertaken using a real-time dust monitor such as the Protinus 1000. "so that "Real-time monitoring will allow air quality criteria to be immediately correlated with on-site activities..." The use of the Protinus 1000 (or the EVM-3 used to measure background PM10 concentrations) is not covered by an Australian Standard. As such, the monitor(s) could not be used for PM10 compliance reporting purposes.	That where PM10 monitoring is to be undertaken for compliance reporting purposes, a monitor that is approved for the purpose be nominated and used.	SCC will undertake air quality compliance monitoring. This will be a combination of real time and dust deposition monitoring using monitors that provide for the best environmental outcome, as agreed through consultation with EHP.

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0.05	Chapter 11 - Noise	<p>Issue: Rating background noise levels Section 11.3.3, Table 11-2 Rating background noise levels</p> <p>In Table 11-2 of Section 11.3.3, the rating background noise levels are derived from the measurement made and shown in Appendix A4-10 for the period 1st to 8th December 2011. This data contains insect noise which has not been filtered.</p> <p>It is specified in the TOR that seasonal variation should be taken into account. No noise measurements were taken in the winter period. No mention was made of seasonal variation nor discussion of the expected variation in level for the Rating background noise.</p>	Provide comments on the anticipated variation in level of the rating background noise levels and amend Table 11-2 accordingly.	Noise monitoring has been carried out as part of the supplementary EIS during May 2013 to capture winter noise levels. Both Chapter 11 - Noise and Appendix A4-10 have been updated to show these results.
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Springsure Creek Coal Mine Project

Response to Submission to EIS



0.06 Chapter 12 - Ecology	<p>Issue: NC Act requirements</p> <p>Section 12.2 Relevant Legislation and Policies and subsequent sections</p> <p>The EIS, in section 12.9.1, states: "It is not anticipated that permits will be required under the NC Act as the project will not directly impact on native vegetation or fauna species." This is incorrect as a permit under the NC would be required for any works that includes clearing of plants protected under the NC Act, and/or activities that may cause disturbance to animal breeding places, and/or and the taking of fauna under the Nature Conservation Act 1992 (NC Act) and section 332 of the Nature Conservation (Wildlife Management) Regulation 2006. For example, an authority under the NC Act is required for clearing of vegetation (e.g. for remedial works on subsidence cracks; as outlined in the EIS) or any other works that would potentially impact on vegetation which provides potential habitat for fauna, as it tampers with the breeding place of an animal.</p> <p>The proponent can apply to be registered for the generic least concern species management program through EHP Wildlife Management. For other EVNT, special least concern and colonial breeding species, a species management program would be required to be submitted to EHP Wildlife Management for consideration in relation to impacts to these species and appropriate mitigation measures where impacts can't be avoided and mitigated.</p>	<p>In Section 12.2 include a statement that outlines the requirements of the proponent to comply with the provisions of the Nature Conservation Act 1992 particularly in regard to:</p> <ul style="list-style-type: none">• the clearing of plants protected under the NC Act• a clearing permit or an exemption under the NC Act• activities that may cause disturbance (i.e. tamper – damage, destroy, mark, move or dig up) to animal breeding places• the taking of fauna. <p>Refer to the NC Act and section 332 of the Nature Conservation (Wildlife Management) Regulation 2006 for further details and definitions.</p> <p>These NC Act requirements would need to be also addressed in the EM Plan.</p>	<p>The statement has been inserted as requested into Chapter 12 - Ecology (Section 12.2) and Section 12.9.1. has been reworded to more closely align with the provisions of the NC Act.</p>
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Springsure Creek Coal Mine Project

Response to Submission to EIS



0.07 Chapter 12 - Ecology	<p>Issue: Lack of field surveys Section 12.5.2 —Field Surveys It is noted that many of the field surveys were not carried within the project, but outside of the MLA. This issue is important as the mapping of regional ecosystems (REs) can not be made reliably from outside the MLA (i.e. the surrounding road networks) and potentially occurring listed threatened species could not be targeted (flora and fauna). These are requirements of the TOR.</p> <p>It is further noted, that the terrestrial fauna assessment (15.5.2.2) included three periods of surveying. An initial reconnaissance was primarily a planning exercise, but that which included bird surveying. Following was a 10 day survey 6-15 Dec 2011 hampered by inclement weather, and a 6 day survey 18-23 June 2012 which did not include Elliott trapping. It can be argued that the combination of inclement weather in the summer survey, the lack of trapping effort in the winter survey and the lack of fauna surveys across the project area limited the surveying success and subsequently the impact assessment as part of the EIS.</p>	<p>Additional RE assessment, as well as flora and fauna surveying will need to be carried out throughout the project area and especially along the riparian woodlands. These should be carried out in accordance with the requirements of the TOR, including ground-truthing REs, targeted listed species surveys, summer and winter surveys and a trapping program.</p>	<p>Additional ecological baseline surveys have been carried out as part of the supplementary EIS process during June 2013. All properties within MLA 70486 have now been accessed at least once for the purposes of baseline studies. The findings of the additional 2013 ecology surveys are reported in an amended Chapter 12 - Ecology and Technical Appendices A4-10 and A4-11.</p>
0.08 Chapter 12 - Ecology	<p>Issue: Hydrological flow P.12-22, Section 12.6 Existing Environmental Values The EIS states “The closest wetland protection area is located 2 km downstream from the project area along Springsure Creek” but no information on any changes that may occur to hydrological flows due to subsidence has been provided that demonstrates that the wetland of high ecological significance can maintain ecological functions before, during and after mine operation.</p>	<p>Recommendation: The project design and any changes to hydrological flows should be designed and managed to ensure that the wetland of high ecological significance can maintain ecological functions before, during and after mine operation. An impact assessment would need to be carried out which would state how potential impacts would be avoided, mitigated or offset.</p>	<p>Offsets for potential impacts on downstream vegetation communities are now included within the Biodiversity Offsets Strategy in set out in Chapter 12 - Ecology (section 12.9)</p>

Springsure Creek Coal Mine Project

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0.09 Chapter 12 - Ecology	<p>Issue: Potential impacts and mitigation of subsided areas Page 12-92, Section 12.8.10 - Subsidence Management</p> <p>This section of the EIS (and EM Plan) does not address the possible physical impacts of subsidence on the land which may impact indirectly or directly on ecological values (aquatic and terrestrial flora and fauna). Issues not discussed, include:</p> <ul style="list-style-type: none">• Lowering of bed and banks• Creation of in-stream waterholes• Changes to local drainage patterns• Incision processes• Stream widening• Erosion• Tension cracking through both shallow and deeper underlying strata, (including aquifers if applicable, if not applicable state so)• Root shear and loss of riparian vegetation in areas of deep subsidence• Impacts to vegetation due to prolonged inundation• Changes to water quality (surface water and groundwater).	<p>Include in the EIS and EM Plan sufficient information on the likely impacts of subsidence including changes on watercourses/drainage lines which may have direct or indirect impacts on aquatic and terrestrial flora and fauna.</p> <p>As a minimum, the EIS should assess the potential site specific impacts of:</p> <ul style="list-style-type: none">• Lowering of bed and banks• Creation of in-stream waterholes• Changes to local drainage patterns• Incision processes• Stream widening• Erosion• Tension cracking through both shallow and deeper underlying strata, (including aquifers if applicable, if not applicable state so)• Root shear and loss of riparian vegetation in areas of deep subsidence• Impacts to vegetation due to prolonged inundation• Changes to water quality (surface water and groundwater) <p>Describe site specific impacts of potential inundation on threatened REs, such as Brigalow. Include figures which show the areas of prolonged inundation superimposed over existing REs.</p>	<p>Within Chapter 12 - Ecology, Section 12-7 (NB Table 12-19 Potential impacts to ecological values) and Section 12-8 have been updated to address ecological impacts as a result of watercourse subsidence. This is based on the physical impacts discussed in Chapter 8 Surface Water. These physical impacts will be managed according to DNRM's Central Queensland Mining Industry Guideline for watercourse subsidence.</p>
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Springsure Creek Coal Mine Project

Response to Submission to EIS



0.10 Chapter 12 - Ecology	<p>Issue: Offset strategy not provided Section 12.9 Offsets</p> <p>Residual long-term impacts on state significant biodiversity values (SSBV) resulting from direct subsidence impacts and managing subsidence (e.g. remedial works; as outlined in section 12.8.10) within remnant REs and remnant riparian areas of Springsure Creek and other tributaries are not adequately addressed. For example, the EIS outlined that the current longwall orientation would result in longitudinal subsidence of 1.2 to 2.3 m of Springsure Creek and tributaries. The EIS acknowledges the presence of SSBVs within the project area (section 12.9.1.1), and according to the Queensland biodiversity offsets policy (BOP) the potential for residual impacts to those values would need to be assessed, avoided, mitigated or offset.</p>	<p>Residual long-term impacts on state significant biodiversity values (SSBV) resulting from direct subsidence impacts and managing subsidence would need to be fully assessed (see comment made above). If mitigation of impacts would not be possible, an offsets strategy should be prepared, consistent with the BOP.</p>	<p>Chapter 12 Section 12.9 Offsets has been expanded to set out the process of developing, approving and implementing an offsets strategy, should such measures be found to be required.</p>
0.11 Chapter 13 - Cultural Heritage	<p>Issue: Reference to Queensland Heritage Act 1992 missing P.13-4, Section 13.4 Non-Indigenous Historical Cultural Heritage</p> <p>Page 13-4 states “non-Indigenous cultural heritage sites and any development impacting these sites are subject to provisions of the Sustainable Planning Act 2009.” However, development can also be assessed under the Queensland Heritage Act 1992 as an Exemption Certificate Approval.</p>	<p>The Queensland Heritage Act 1992 as well as the Sustainable Planning Act 2009 must be acknowledged as potentially having a regulatory control of development on QHR sites.</p>	<p>Sentence amended to: "Indigenous and non-Indigenous cultural heritage sites and any development impacting these sites is subject to provisions of the Sustainable Planning Act 2009 (Qld) (SP Act), as well as the QH Act where the development is assessed as an exemption certificate approval."</p>

Springsure Creek Coal Mine Project

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<p>0.12 Chapter 18 - EM Plan</p>	<p>Issue: Potential expansion of coal processing plant P.18-20, Section 18.2.8.6 Product Processing The EM Plan states that “if the coal requires beneficiation [...] then a coal processing plant will be required to remove the coarser fraction of any dilution.”</p> <p>If the proposed project would require a coal processing plant, it must be reflected in the EIS and EM Plan. A full assessment of any potential impacts would be required. Little information has been provided in the EIS regarding a potential coal processing plant and no environmental assessments have been carried out.</p>	<p>If the project would not require a coal processing plant, delete all references made in the EIS and in the EM Plan.</p> <p>If the proposed project would need to include a coal processing plant, environmental assessment provided in the EIS and EM Plan would need to be updated to include potential impacts on air, noise, dust, water, ecology and other relevant environmental values due to the construction and operation of a coal processing plant.</p> <p>Also, the EM Plan should clearly outline that the project has the potential to expand to include a coal processing plant. The EIS and the EM Plan must clearly state if the current application be seeking approval for a coal processing plant. This ensures the EM Plan has scope to include this activity and that conditions can be provided as part of the environmental authority (EA).</p>	<p>SCC does not seek approval for a Coal Processing Plant (CPP). All references to CPP have been removed. The EIS has been amended throughout to state the scope of the project as follows:</p> <p>"All run of mine coal would be transported off site without the need for beneficiation. It is anticipated that beneficiation would not be required. In the event that a Coal Processing Plant was required then approval for this component would be sought through an appropriate approval process."</p>
<p>0.13 Chapter 18 - EM Plan</p>	<p>Issue: Information on proposed pipeline P.18-22, Section 18.3.3.4 Offsite Supply – Water Trading Last sentence in paragraph states provision of a pump station connecting pipeline to the project will be required. Insufficient information was provided in the EIS.</p>	<p>EIS should identify if the proposed pipeline is part of the Springsure Coal Mine Project. If a pipeline is required as part of the project, environmental assessment provided in the EIS and EM Plan would need to be updated to include possible impacts on air, noise, dust, water, ecology and other relevant environmental values. The EIS and the EM Plan must clearly state if the current initial application be seeking approval for a pipeline. This ensures the EM Plan has scope to include this activity and that conditions can be provided as part of the environmental authority (EA).</p>	<p>Approval for the water pipeline and auxiliary infrastructure is not sought through the EIS. Its approval will be sought via the Sustainable Planning Act and a separate approval process to the mine. Impacts of this are thus not presented in the EIS.</p>
<p>0.14 Chapter 18 - EM Plan</p>	<p>Issue: Rehabilitation schedule and criteria P.18-30, Section 18.3.13 Rehabilitation and Decommissioning The submitted EM Plan identifies progressive rehabilitation will be undertaken and identifies rehabilitation objectives and options. However, no specific rehabilitation criteria were provided.</p>	<p>The EM Plan must identify the rehabilitation schedule for the initial period of progressive rehabilitation, as well as specific rehabilitation criteria to meet the objectives already identified in the EIS and EM Plan.</p>	<p>The rehabilitation schedule will be as per the mine plan. Rehabilitation will be immediate and progressive following each longwall that is extracted and included as part of decommissioning works.</p>

Springsure Creek Coal Mine Project

Response to Submission to EIS



0.15 Chapter 18 - EM Plan	<p>Issue: Commitments to manage potential residual long-term impacts from subsidence Section 18.5.7 – Subsidence, but also Section 12.8.10 – Subsidence Management</p> <p>The current orientation of the longwalls in the project description will result in longitudinal subsidence of Springsure Creek and tributaries, modelled to range from 1.2-2.3 m over the whole project area (appendix A4-2). As noted in the EIS, the project area is largely comprised of land whose natural values are compromised by clearing and land-use practices including irrigated and dry cropping and grazing. The mapped remnant riparian vegetation within the project area therefore provides habitat values (albeit degraded) which are limited within the project area and surrounding subregions. The submitted EM Plan includes as control strategies (18.5.7.5) the development of subsidence management plans (SMP) as part of a subsidence management framework (SMF). However, no commitments to manage potential residual long-term impacts from subsidence are provided on SSBV or any biodiversity values.</p>	<p>Include in the SMF commitments to managing potential residual long-term impacts from subsidence on biodiversity. Any remedial works (as outlined in Section 12.8.10, Ecology report) or SMF commitments made in the EMP would need to ensure that impacts of subsidence on biodiversity values will not be worsened. For example, the SMPs could employ low impact rehabilitation or remedial methods (e.g. the use of smaller machinery). This would allow that impacts due to subsidence will not be aggravated. Where impacts on SSBV can not be avoided, an offset strategy would need to be provided.</p>	<p>Subsidence Management Plans, Species Management Plans and Vegetation Management plans will be developed prior to construction and operations. These plans will be designed to maintain the ecological integrity of the individual areas which may be impacted. It should be noted that it is SCC's intent to improve vegetation communities where possible. This will be done in consultation with landowners, DNRM and EHP. Long-term management options and offsets will be detailed in the rehabilitation plan, periodically reviewed and revised over time as new information becomes available that alter the predicted impacts.</p>
0.16 Chapter 18 - EM Plan	<p>Issue: Missing ERAs</p> <p>P. 18-35, Section 18.3.15 Environmentally Relevant Activities (ERAs)</p> <p>This section identifies the potential ERAs that the project may trigger. The EM Plan may identify scope for potential ERAs for the project but should also confirm and be clear on which ERAs will be sought to be authorised.</p>	<p>ERAs to be included in the application for an EA should be identified clearly in the EM Plan including the proposed thresholds for each ERA.</p>	<p>SCC seeks approval for all ERAs listed in the EM Plan.</p> <p>Chapter 18 EM Plan Section 18.3.15 updated to state the project WILL require the listed ERAs rather than MAY.</p>



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0.17 Chapter 18 - EM Plan	<p>Issue: PM10 instrumentation and monitoring P.18-44, Section 18.5.2 Air Quality – Existing air quality, 4th paragraph.</p> <p>It is considered by EHP that the recorded results from monitoring reported in the EIS are not representative of “baseline” conditions. The monitoring was undertaken using an EVM-3 monitor. The EVM-3 monitor is similar to a DustTrak monitor and does not have USEPA equivalency/certification for PM10 monitoring. As such there is some question over the reliability of the PM10 results.</p> <p>In addition, some 56mm of rainfall was recorded during the monitoring period. As such, background PM10 concentrations - particularly during dry conditions, or peak agricultural activities times may be somewhat different to those presented in the submitted EM Plan.</p>	<p>P.18-44 Section 18.5.2 Air Quality – Existing air quality, 4th paragraph. Monitoring instrumentation should have USEPA equivalency/certification for PM10 monitoring. Monitoring to establish background levels should be undertaken during representative conditions at the site.</p>	<p>Baseline conditions have been established through a combination of desk top reviews of existing information and 2 rounds of field surveys. The data are considered valid and representative of the Project area. The rainfall recorded during site sampling has been taken into account by the air quality study and the derivation of Project-specific baseline criteria. Given rainfall will have suppressed ambient dust concentrations, the use of samples collected during rainfall provide a conservative level of dust relative to a higher concentration that would have been recorded during drier weather.</p>
0.18 Chapter 18 - EM Plan	<p>Issue: Update reference P.18-56, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air – Table 18-14</p> <p>Update reference to Australian standard AS2923:1987 for meteorological data with AS3580.14-2011 "Methods for sampling and analysis of ambient air.</p>	<p>Replace AS2923:1987 with AS3580.14-2011 "Methods for sampling and analysis of ambient air. Part 14: Meteorological monitoring for ambient air quality monitoring applications."</p>	<p>The EM plan has been updated to reference AS3580.14-2011 Methods for sampling and analysis of ambient air.</p>



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0.19 Chapter 18 - EM Plan	<p>Issue: Conditions under the NC Act Section 18.5.9 - Ecology</p> <p>The EM Plan does not state conditions relating impacts on native flora and fauna protected under the Nature Conservation Act 1992 (refer to comment made earlier on).</p>	<p>Include a new heading of the EM Plan with the following conditions:</p> <p>“Conditions: Impacts on Native Flora and Fauna</p> <p>The proponent must comply with the provisions of the Nature Conservation Act 1992 particularly in regard to the following:</p> <ol style="list-style-type: none"> 1. Where there is a requirement for clearing of plants protected under the Nature Conservation Act 1992: <ol style="list-style-type: none"> a. Clearing of protected plants must only occur in accordance with a clearing permit or an exemption under the Nature Conservation Act 1992. b. Offsets must be provided for the permanent loss (take) of near threatened, vulnerable and endangered plants to achieve an equivalent or better overall outcome at a regional scale in accordance with the Queensland Biodiversity Offset Policy 2011. 2. Where the activities of the proponent may cause disturbance (i.e. tamper – damage, destroy, mark, move or dig up) to animal breeding places the prior approval of EHP must be obtained. It is unlawful to tamper with the breeding place of a protected animal without authorisation. Section 332(4) of the Nature Conservation (Wildlife Management) Regulation 2006 identifies that the removal of a breeding place may occur under an approved species management program (SMP) or a damage mitigation permit (DMP). The definition of breeding place is ‘a bower, burrow, cave, hollow, nest or other thing that is commonly used by the animal to incubate or rear the animal’s offspring’. 3. Where there is a need to take fauna, the prior approval of EHP must be obtained. In relation to an animal – ‘take’ includes to hunt, shoot, wound, kill, skin, poison, net, snare, spear, trap, catch, dredge for, bring ashore or – aboard a boat – pursue, lure, injure or harm the animal; or attempt to do any of these acts. 4. The proponent should act in accordance with the management principles outlined in Section 73 Nature Conservation Act 1992, especially s73(a)(i) which states: “...protected wildlife is to be managed to conserve the wildlife and its values and, in particular to ensure the survival and natural development of the wildlife in the wild.” 	<p>The EM Plan (Section 18.5.9 - Ecology) has been updated to include this statement as requested</p>
0.20 Chapter 18 - EM Plan	<p>Issue: Air sampler and method P.18-54, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air – Condition (B4)</p> <p>Proposed condition (B4) includes reference to Australian Standard AS3580.9.6. This standard relates to the use of a PM10 high volume sampler method. High volume samplers require that a filter be changed after each 24-hour sampling period. The sampler (and method) do not allow for real-time monitoring/reporting.</p>	<p>For compliance-approved, real-time monitoring, AS3580.9.8-2008 "Methods for sampling and analysis of ambient air.-method 9.8: Determination of suspended particulate matter-PM10 continuous direct mass measurement using a tapered element oscillating microbalance analyser" should be referenced.</p>	<p>SCC will undertake air quality compliance monitoring. Will be a combination of real time and dust deposition monitoring using approved monitors.</p>



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0.21	Chapter 18 - EM Plan	Issue: Air quality management plan P.18-54, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B6) Proposed condition (B6) - Air quality management plan - no timeframe for development and implementation is proposed	The Air quality management plan should be developed and approved before the project commences.	SCC will develop an Air Quality Management Plan (AQMP) prior to construction that will detail air quality objectives, potential impact management measures and reporting / adaptive response procedures.
0.22	Chapter 18 - EM Plan	Issue: Inconsistencies between B3 and B8 P.18-55, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B8) Proposed condition (B8) - the condition nominates PM10 only. This is not consistent with condition (B3).	Review inconsistency between condition B8 and B3.	There is no inconsistency: B3 relates to total particulates; B8 relates to PM10 only.
0.23	Chapter 18 - EM Plan	Issue: Location of air quality monitoring sites P.18-55, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Table 18-13 It would be useful to include a monitoring site which is upwind of the site in the direction of prevailing winds. Such a location could provide information about the particulate matter loads on winds approaching the mine. Those loads could then be subtracted from downwind locations to show the contribution from mining activities. This would also strengthen condition (B8) dot point 3.	Consideration should be given to the location of monitoring sites upwind of the prevailing winds.	The EM plan has been revised to include an upwind air quality monitoring station.
0.24	Chapter 3 - Description of the Project	Note: Incorrect reference Section 3.6.2 Building damage EHP has no jurisdiction on building damage.	Section 3.6.2 Building damage Delete reference to EHP in relation to jurisdiction on building damage.	Deleted.
0.25	Chapter 7 - Waste Management	Note: Script error P.7-23, Section 7.6.3.4 Off-site waste disposal, error in first paragraph, 5th line. Error script in reference to be corrected.	P.7-23 Section 7.6.3.4 Off-site waste disposal, error in first paragraph, 5th line "Their locations relative to the Project are represented in Table 7-5 and shown on Error! Reference source not found replace with relevant reference..."	This is a template error and has been amended in the document with the correct reference re-inserted and hyperlinked.

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0.26	Appendix A4-10 Noise and Vibration Report	Appendix A4 – 10 Figure 2-2 Sensitive receptors Figure 2.2 does not have a scale.	Please insert a scale to Figure 2.2 and correct Figure Caption.	Scale and correct caption provided now on Figure 2-2 of Appendix A4-10
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Department of Tourism, Major Events, Small Business and the Commonwealth Games

Submission number	Topic	Comment	Recommendation / Suggestion	Response
1.1	General	No comment	Nil	No Action Required

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Department of Local Government, Community Recovery and Resilience

Submission number	Topic	Comment	Recommendation / Suggestion	Response
2.1	General	no comment	nil	No Action Required

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Department of National Parks, Recreation, Sport and Racing

Submission number	Topic	Comment	Recommendation / Suggestion	Response
3.1	General	no comment	nil	No Action Required

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Ergon

Submission number	Topic	Comment	Recommendation / Suggestion	Response
4.1	Chapter 3 - Project Description	Electricity Requirements It is understood that the preferred power supply option is for a 132kV single circuit overhead line to connect from the existing Blackwater - Rolleston 132kV line to the proposed mine, and approval for this connection is being sought through a separate process and is not part of the scope of the present EIS.	At present the responsibility of developing the line (easement acquisition, approvals and construction) rests with Bandanna Energy. Discussions are continuing between Ergon Energy and Bandanna Energy regarding the connection of their proposed line to our network via a switching station.	Noted.
4.2	Chapter 18 - EM Plan	Electricity Requirements It is understood that the preferred power supply option is for a 132kV single circuit overhead line to connect from the existing Blackwater - Rolleston 132kV line to the proposed mine, and approval for this connection is being sought through a separate process and is not part of the scope of the present EIS.	At present the responsibility of developing the line (easement acquisition, approvals and construction) rests with Bandanna Energy. Discussions are continuing between Ergon Energy (primary contact Chris Quinn) and Bandanna Energy regarding the connection of their proposed line to our network via a switching station.	Noted.
4.3	Chapter 3 - Project Description	Encroachments and/or points of intersection The proponent will be required to identify where (is anywhere) the relocation, replacement or removal of existing electricity infrastructure is required as part of the mine and associated corridor.	Should this exercise identify that changes to Ergon Energy infrastructure are required as part of the development, those changes are made with Ergon Energy's consent and at the proponents expense (unless otherwise agreed with Ergon Energy). Any redesign of Ergon Energy infrastructure required as a result of the proposal must take into consideration servicing and maintenance access requirements for Ergon Energy personnel and equipment. Where fencing prohibits access to and along infrastructure, gates must be supplied and installed at the proponents expense.	Noted.
4.4	Chapter 18 - EM Plan	Encroachments and/or points of intersection The proponent will be required to identify where (is anywhere) the relocation, replacement or removal of existing electricity infrastructure is required as part of the mine and associated corridor.	Should this exercise identify that changes to Ergon Energy infrastructure are required as part of the development, those changes are made with Ergon Energy's consent and at the proponents expense (unless otherwise agreed with Ergon Energy). Any redesign of Ergon Energy infrastructure required as a result of the proposal must take into consideration servicing and maintenance access requirements for Ergon Energy personnel and equipment. Where fencing prohibits access to and along infrastructure, gates must be supplied and installed at the proponents expense.	Noted.
4.5	Chapter 3 - Project Description	Safety during construction Ergon Energy must be contacted for safety advice prior to work commencing within close proximity of Ergon Energy infrastructure. The following legislation and code should be consulted for working in the vicinity of electrical infrastructure: Electrical Safety Act 2002 Electrical Safety Regulation 2002 Code of Practice - Working near Exposed Live Parts		Noted.
4.6	Chapter 18 - EM Plan	Safety during construction Ergon Energy must be contacted for safety advice prior to work commencing within close proximity of Ergon Energy infrastructure. The following legislation and code should be consulted for working in the vicinity of electrical infrastructure: Electrical Safety Act 2002 Electrical Safety Regulation 2002 Code of Practice - Working near Exposed Live Parts		Noted.



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s.73 irrelevant info

Submission number	Topic	Comment	Recommendation / Suggestion	Response
5.1	Chapter 5 - Land	Just because the proponent (S.C.C.) owns the property under which the mining proposes to take place, it does not give S.C.C. the right to eventually destroy this prime cropping land through subsidence; and this will happen. Even subsidence of a minor nature will render this land useless for cropping. Every land owner in this area has every right to be concerned in relation to this project (mine) through subsidence & threatening underground water issues. Once this land is destroyed it is destroyed for ever, the same applies to any interference with the underground water source.	No mining should be allowed to take place in any shape or form on any or under land that has prime agricultural & environmental significance.	SCC is committed to ensuring agriculture and mining can co-exist and agricultural productivity of land impacted by underground mining is maintained or improved. Cropping and underground mining have been shown to co-exist in a number of areas, with agricultural yields from affected properties maintained. Through investment in research through the Agricultural Co-existence Research Committee, SCC is demonstrating its committed to develop methods that not only maintain agricultural production but also lead to increased yields.
5.2	Chapter 5 - Land	While it is acknowledged the project (mine) will bring much needed export income & employment, this has to be weighed up against short term income & employment (the life of the project mine) & permanent destruction of the land & environment.	Weigh up economic benefits with destruction of the land	The EIS includes mapping of current land use suitability's for the Mining Lease Application (MLA) area. The project will be developed to ensure that land use across the MLA is maintained and production can continue well into the future. One of our objectives is to maintain or improve agricultural yields for areas directly impacted by the project. Research and strategies to achieve this objective will be directed by the independent Agricultural Co-existence Research Committee.
5.3	Chapter 5 - Land	If this project (mine) was to proceed on and under this prime cropping and agricultural land, substantial increase in royalties needs to apply. This should apply to any mining in any area where cropping and grazing land is involved.	If proponents (mining companies) want the resources from these prime areas, they have to be prepared to pay substantial compensation for the destruction caused.	Neither Bandanna Energy nor Springsure Creek Coal (SCC) are in a position to guide government policy with regards royalties and taxes.



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Department of Energy and Water Supply

Submission number	Topic	Comment	Recommendation / Suggestion	Response
6.1	Chapter 9 - Groundwater	<p>9.3.10 Groundwater Flow Regime</p> <p>In the 4th paragraph it is stated: "Recharge to the water table is interpreted to occur along the existing drainage lines, corresponding to the distribution of the Quaternary Alluvium." However, no modelled quantitative data is provided with respect to the residual pending that remains in the area of subsidence immediately following major stream flows if the area beneath Springsure Creek is mined. Nor is there mention of the increased amount of infiltration made to underlying strata, although reference is made in the last paragraph of the Executive Summary of this chapter to a cone of depression developing in the Alluvium as a result of the underground long-wall mining.</p>	Determine and describe the implications resulting from any subsidence and cone of depression along Springsure Creek from the perspective of water supply availability and reliability for existing downstream surface water users, as surface water will be lost through pending and increased infiltration if the area beneath Springsure Creek be mined.	The surface fracture zone has not been simulated. Surface fracturing may enhance recharge but is very difficult to quantify. Increased recharge is a mechanism that would enhance the recovery of water levels. Hence its neglect from the modelling of groundwater impacts is a conservative assumption. However, the submitter is referred to Chapter 9 - Surface Water for assessment of subsidence on surface flows, namely sections 8.5, 8.6 and 8.7 which set out that downstream flows are highly unlikely to be significantly impacted assuming mitigation measures are implemented.
6.1	Chapter 3 - Project Description	<p>3.6.3.1 Water Supply</p> <p>Reference is made to a raw water demand of 838 ML/a. This is in conflict with the figure of 1,247 ML/a that is referred to in Section 2.2.4.1 Water Grid Supply</p>	Determine the actual raw water requirement for the proposed mine	<p>As per 2.2.4.1 and table 3-8, the water demand for dual longwall operation is 1247 ML. 838 ML is the water demand during single longwall operations.</p> <p>The reference to 838 ML in Section 3.6.3.1 was a typo and has been corrected.</p>
6.11	Chapter 9 - Groundwater	<p>9.5 Potential Impacts on Environmental Values</p> <p>In the first row line item in Table 9-17 reference is made to "Aquifer cross contamination" during the construction phase however no reference is made within this table to post operation contamination occurring upwards into the basalt formation from across the worked underground mine area, as is indicated is possible into the Upper Fractured Zone as shown in Figs 3.4 and 3.5 in Appendix A4 -7a.</p>	Include another row in Table 9-17 to describe the "post operations" risk associated with the upward movement of saline water once the old coal seam area re-fills, which would impact the quality of bores in the basalt and other formations, and potentially with surface waters once connection is made with any ponded water.	As mining will cause depressurisation at depth, flow will be downward. No rebound of saline water is expected within accessible aquifers used by the community. The effect is that groundwater at depth may become locally desalinated as a result of leakage and mixing of less saline water from shallower depths. Please refer to Section 9.5.7.2.
6.12	Chapter 2 - Project Needs and Alternatives	<p>2.2.4.6 Energy Aspects</p> <p>DEWS has no concerns in regard to the energy requirements for the project as outlined in Section 2.2.4.6 (summarised as follows):</p> <ul style="list-style-type: none"> • Approval for the power supply to the project is being sought through a separate EIS and is not part of the scope of the present EIS. • The preferred option is for a 132 kilovolt (kV) single circuit overhead line to connect from the existing (Ergon Energy network) Blackwater - Rolleston 132 kV line to the Project. • The 132kV overhead line will be located within the proposed transportation corridor (considered as part of the EIS submission for the transportation corridor). • The key interface will be the connection to the onsite power network by Ergon Energy (assessed under a separate referral). • If operation of the Mine Site is required prior to grid-connected power, diesel generators will be connected to the site power network to operate the longwall, coal handling facilities and the Mine Infrastructure 	<p>While DEWS recognises the proposed power supply is subject to a separate EIS, the proponent will, when undertaking the separate EIS, need to ensure all relevant legislative requirements under the Electricity Act 1994 are satisfied. This includes a special approval under the Electricity Act to operate the 132kV line, where it is located on property not owned by the operator or part of the mining lease.</p> <p>Note: Section 189 (5) (b) states the regulator must consider the likely environmental effects of building and operating the transmission grid.</p>	This component of the Project would be subject to all relevant statutory approvals, as appropriate.

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		<p>Area (MIA) prior to grid connect ion becoming available.</p> <ul style="list-style-type: none"> The maximum expected energy demand for the Project during operations will be in the order of 30 megawatts (MW) at 11 Mtpa of coal production. 		
6.2	Chapter 3 - Project Description	<p>3.6.3.1 Water Supply No reference is made to the average and maximum rates of supply from each source for the mining phase</p>	Determine the average and maximum rates of supply from each source for each mining phase	The EIS states the water demand for the Project and considers variation in water availability on site - See Chapter 8 Surface Water. Depending on water availability on site, water required from offsite sources would vary from year to year.
6.3	Chapter 3 - Project Description	<p>3.6.3.2 On-site flood Harvesting Dam Supply No mention is made of the yield and reliability level of water from the two farm dam storages</p>	Determine the yield and reliability of the two storages associated with water harvesting operations	SCC does not proposed to interfere or take water from existing farm dams. A water allocation has been purchased from the Nogoa-McKenzie River system for the Project. On site harvesting has not been investigated to determine the yield or reliability and is not required.
6.4	Chapter 3 - Project Description	<p>3.6.3.4 Off-site Supply Water Trading No indication of the amount of available allocation is made.</p>	Provide an indication of the amount of available allocation	The allocation is sufficient to meet the Project site water demand needs within the available allocations within the Nogoa-McKenzie River System.
6.5	Chapter 3 - Project Description	<p>3.9 ToR Cross Reference Under Section 3.1.2 of this table reference is made to water supply lines being shown in Figs 3.4 or 3.5, where such are not shown.</p>	Include water supply lines in Figs 3.4 and 3.5	Approval for the water supply lines is sought through a separate approval process to the mine and is not presented in the EIS.
6.6	Chapter 8 - Surface Water	<p>8.3.2.1 Springsure Creek The starting elevation of 258m appears to be incorrect. This would have a bearing on stream slope and potential ponding.</p>	Topography mapping suggests a starting elevation of around 415m.	<p>Mapping of Springsure Creek will be reviewed and the elevation updated as necessary to inform environmental monitoring.</p> <p>The most upstream catchment elevation of Springsure Creek is approx RL 410m AHD. These levels have been used for all hydrology calculations.</p> <p>The reference to RL 258m AHD is made specific to the base of Red Hill where the Springsure Creek channel formalises.</p>
6.7	Chapter 8 - Surface Water	<p>8.3.2.2 Station Creek The starting and lower elevations of 347m and 315m appear to be incorrect. This would have a bearing on stream slope and potential ponding.</p>	Topography mapping suggests the starting and lower elevations should be around 240m and 170m.	Refer to response 6.6
6.8	Chapter 8 - Surface Water	<p>8.3.5 Existing Water Users The last sentence in the 2na paragraph outlines: "These properties may potentially be impacted by changes in stream flows and volumes due to subsidence", but does not describe the extent of the potential impact.</p>	Describe the extent of the impact in terms of potential reduced water availability and reliability	Impacts to stream flows are evident both within and downstream of the subsidence area. Impacts are quantified within Chapter 8 - Surface Water (section 8.6) of the EIS and mitigation measures set out in 8.7 with which no significant residual impacts are expected.

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6.9	Chapter 9 - Groundwater	9.3.8 Existing Groundwater Users The 2nd sentence states; "The total amount of water used in the area is uncertain."	Determine the water use in the area so as a baseline of water use may be established.	An additional groundwater census was undertaken in May 2013 involving a search of DNRM Water Management System database, consultation with landholders and inspection of existing bores. Please refer to Chapter 9, Section 9.3.8 of the revised Groundwater Chapter for details. In summary, maximum licensed extraction volume in the Project area is 500 ML/yr. Additional groundwater extraction and use data will be collected as part of the on-going monitoring and future monitoring proposed in Section 9.6.

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Skills Queensland

Submission number	Topic	Comment	Recommendation / Suggestion	Response
7.1	Chapter 19 - SIMP	<p>19.6.2 Workforce Management Action Plan</p> <p>The objectives and actions of the Workforce Management Action Plan in general meet the requirements of Skills Queensland and interested agencies. These actions include:</p> <ul style="list-style-type: none"> • developing an indigenous participation plan • liaising with FIFO coordinators • inclusive recruitment policies • developing an education and training plan for the local community • identifying existing programs and working with relevant stakeholders • exploring opportunities to provide VET to students in the local community working with QRC and QMEA. • exploring partnership between Springsure Creek Coal and the Agricultural College in Emerald and schools in Springsure and Emerald about an agricultural plan and agricultural scholarships. 		Noted.
7.2	Chapter 3 - Description of the Project	<p>3.4.6.1 Workforce Demand & 3.4.8 Workforce Management</p> <p>Indicative workforce numbers are provided and estimated workforce composition of local, DIDO and FIFO numbers. A breakdown of numbers is provided but not to an occupational level. The main occupations are identified for the construction and operational stages but not the numbers required or whether supply will be an issue. There is a reference to supply issues identified in previous industry surveys. Strategies to assist recruitment and retention of staff include improving working conditions, providing training and sourcing from interstate and overseas. However the slowdown in the resource sector and more availability of skilled workers is acknowledged.</p>	<p>As the proponent states that they will continue to develop plans and strategies and the composition of the workforce and the source of workers will not be known until recruitment commences it is recommended that:</p> <ul style="list-style-type: none"> • the proponents meet with Skills Queensland at Financial Investment Decision or awarding of contracts to provide an updated workforce profile and identify skills issues and strategies to address the project's needs. 	Action is agreed. Further discussions regarding workforce will be held once a financial investment decision is made.

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Department of Aboriginal and Torres Strait Islander and Multicultural Affairs

Submission number	Topic	Comment	Recommendation / Suggestion	Response
8.1	Chapter 18 - SIMP	To maximise employment opportunities for Indigenous people within the Springsure Creek Coal Mine project, the department requests that Aboriginal people and Torres Strait Islander people are considered for employment at all stages of the project (construction, operations and decommission) and that Indigenous employment targets are set for these stages.	Encourage Springsure Creek Coal Pty Ltd to condition contractors responsible for the construction stage to have an Aboriginal and Torres Strait Islander cultural capability training and an Aboriginal and Torres Strait Islander employment program as part of strategies to recruit and retain Aboriginal and Torres Strait Islander employees.	Noted. Contractors will be required to have recruitment and training programs in place, along with a local employment policy which they will be required to report on. Aboriginal and Torres Strait Islander recruitment and training will be considered within these programs and policies.

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s.73 irrelevant information

Submission number	Topic	Comment	Recommendation / Suggestion	Response
9.01	Chapter 9 - Groundwater	<ul style="list-style-type: none"> • A lack of detail in bore monitoring e.g. 'Wallalee' registered bores are not shown within the EIS. • A lack of detail and understanding of underground aquifers and what will happen to them after subsidence within the local and surrounding areas in the immediate and long term future. • There is no contingency plan in place in case of loss of water supplies which needs to be rectified before there is any problem in relation to quality or quantity. Damage to quality of water supply may go unnoticed until too late with a chance of stock perishing due to contaminated water. 		<p>Since preparation of the EIS, where we have been able to gain the consent of landholders, additional hydro census, groundwater level, aquifer properties and water quality data has been collected from properties and groundwater infrastructure maps updated. Additional data has been gathered from further drilling operations. Using the additional data collected, both the hydrogeological conceptual model and the numerical model have been updated. A revised groundwater report has been prepared along with a mitigation and monitoring strategy. Please refer to the revised Chapter 9 and Appendices 4-7a and 4-7b which are included on the enclosed USB.</p> <p>Based upon the assessments undertaken, it is unlikely there will be any impact on the quantity or quality of groundwater from existing bores.</p> <p>SCC will implement a groundwater monitoring program to monitor the impacts of mining activity on groundwater and proactively address any potential impacts. In addition, we are seeking to enter into discussions with landholders to enter into compensation agreements regarding impacts as a result of mining, including impacts on groundwater infrastructure.</p>
9.02	Chapter 3 - Description of the Project	3.6.3.2 ON SITE FLOOD HARVESTING DAM SUPPLY Statement: "The two main existing farm dams on Den-Lo Park harvest flood water from Springsure Creek and a drainage line to the west of the project area"	Problem: Dams are used for irrigation – going to mine underneath, potential in-rush could occur in underground mine.	All surface infrastructure, including existing dams which could be affected by subsidence will be managed through the Subsidence Management Framework (SMF) and through individual Subsidence Management Plans. Specifically in relation to the existing water supply dams on Den-Lo Park, the impacts of mining will be managed to ensure the supply of water to the property is maintained.
9.03	Chapter 4 - Climate	4.3.3 FLOODS Statement: "The potential for flooding within the project area is considered relatively low"!!!	Problem: Floods across the Comet Flood plain will affect the proposed haul road majorly and in turn the haul road will have a major impact on the flood plain.	It is acknowledged that the Comet River Floodplain frequently floods. However, the infrastructure corridor which includes the proposed haul road is outside of the project area. The project area relates to the proposed mine only. Potential flooding and the Comet River floodplain will be considered during the assessment of the infrastructure corridor.
9.04	Chapter 8 - Surface Water	Potential contamination of stream flows due to discharge from the mine which could cause stock, pasture and /or crop losses.		<p>The storage of any chemicals which could potentially cause contamination of water ways will be according to the relevant Australian Standard. The main chemicals on site will be hydrocarbons which will be stored according to AS1940.</p> <p>The mine site water management strategy identified a water deficit, or shortage of water, for proposed operations. As a result, the philosophy used for the study has been to optimise on-site water capture and reuse.</p> <p>A total of 86 years of historical rainfall was used in a water balance model to assess and size required dam capacities to collect water from the site. All dams have been sized to have no discharge during the 86 years of historical rainfall records to maximise reuse potential and reduce the need for any potential uncontrolled discharges from the site. There are no proposed piped releases from dams to the receiving environment.</p> <p>In undertaking the assessment, we used the "Manual for Assessing Hazard Categories and Hydraulic Performance of Dams" published by DERM in 2012, as the basis for the assessment and</p>



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				<p>design of storage capacities.</p> <p>All mine water infrastructure will comply with release limits and conditions contained in any Environmental Authority issued by DEHP.</p>
9.05	Chapter 5 - Land	<p>Figure 5-16 PREDICATED SUBSIDENCE ACROSS SECTION B – B IN DETAIL.</p> <p>Statement: Refer to Figure 5-16</p> <p>Problem: Shows exact problem with subsidence between pillars. It would be like farming across corrugated iron – not possible - huge drainage issues in this climate.</p>		<p>Whereas corrugated iron is a series of evenly spaced undulations, subsidence for this project will be visible as a series of gentle uneven undulations of varying depths across the site. The length of subsided areas will depend upon the length of each longwall, however the width of the subsided areas will be approximately 300m with distances of between 40m - 65m between each subsided longwall.</p> <p>The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided land.</p> <p>SCC is committed to maintaining or improving agricultural productivity on subsided land and has demonstrated this commitment by investment in the independent Agricultural Co-existence Research Committee which has been established to guide co-existence research aimed at:</p> <ul style="list-style-type: none"> • Maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas; and • Understanding community expectations and identifying strategies to minimise adverse impacts and maximise the social and economic benefits of the mining investment.
9.06	Chapter 6 - Traffic and Transportation	<p>Figure 6-3 LOCAL BUS STOPS AND FLOOD WAYS</p> <p>Statement: Refer to Figure 6-3</p> <p>Problem: Local bus stops are incorrect</p>		<p>Information showing school bus stops has been sourced from the Central Highlands Regional Council and the Department of Transport and Main Roads.</p> <p>SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
9.07	Chapter 6 - Traffic and Transportation	<ul style="list-style-type: none"> • A lack of detail concerning the issues of the school bus traffic and disruptions. • There is no mention anywhere in the EIS regarding the impacts upon agricultural machinery movements. There will be greater impacts on the movement of agricultural machinery during busy time of planting and harvesting. • The local rural road systems cannot handle the excessive mine traffic. 		<p>As noted previously, it is acknowledged that the proposed mine access from, the Gregory Highway is also a school bus route. As part of developing a Road Use Management Plan, further discussions will be held with a number of stakeholders including the Central Highlands Regional Council and the school bus committee.</p> <p>Discussions at the Gindie Public Information Session on 25 February 2013 highlighted the issue of moving agricultural equipment between properties, especially during times of harvesting and planting. At that meeting opportunities such as construction of pull-off areas at regular intervals along the road were raised. This option, along with others will be considered during the detailed design of local road upgrades.</p> <p>Ongoing consultation and road user management policies to be developed will ensure mine related traffic is aware of the likely presence of agricultural equipment and other road users, and will be required to comply with specified road user management practices.</p>



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9.08	Chapter 8 - Surface Water	8.5.5.1 PEAK FLOOD FLOWS Statement: "Modelling indicates that unmitigated subsidence will generally reduce peak flows at the downstream boundary...."	Problem: This will mean less water for downstream uses.	This statement related to unmitigated subsidence. It should be noted that flow rates at Springsure Creek remained relatively unchanged irrespective of flood event size. With mitigation of subsidence the impacts on downstream flows will be substantially reduced.
9.09	Chapter 3 - Description of the Project	3.3.3.1 GENERAL CONSTRUCTION METHODS "The Initial construction force will be housed in Emerald or Springsure" This will place more pressure on already stretched accommodation supplies		<p>There is currently no evidence to suggest there is pressure on accommodation in the Emerald or Springsure areas.</p> <p>Subsequent to the baseline data regarding housing being presented in the Social Impact Assessment (Appendix A4-15 and Chapter 14 of the EIS), the housing market in the Central Highlands has experienced significant change corresponding to a decline in activity in the resources sector. In May 2012 there were approximately 200 properties for sale in Emerald and since mid-June 2012 this figure has gradually increased to remain steady at around 500 since December 2012. Over the same period, the number of people looking at each property (on average) has declined from over 10 per property to between 2 and 3 since October 2012. Property prices have however tended to remain fairly constant.</p> <p>Our strategy to continue to monitor the housing market and work with stakeholders to identify the most appropriate action at such time that the project is anticipated to have an impact is considered the most appropriate action at this stage.</p>
9.10	Chapter 9 - Groundwater	Figure 9-4 LOCATIONS OF SAMPLES GROUND WATER BORES Statement: Refer to Figure 9-4 Problem: Location of Bore 89359 is not correct. Problem: Registered bores on property 'Wallalee' are not marked on Figure 9-4 map and have not been sampled.		<p>Additional groundwater quality and level data have been collected in May 2013. The groundwater sampling program which has taken place to date has targeted a number of bores in the area associated with the Project. These bores and sampling locations have been selected to provide a representation of the area for groundwater assessment and modelling. Additional groundwater quality data are presented in Section 9.3.7 of the revised report. Additional water quality data will be collected as part of on-going assessment.</p> <p>Bore 89359 location is as per DNRMs data base coordinates and is displayed simply to identify what registered bores are present within the area surrounding the Project. This bore has yet to be sampled as it was not part of the Hydro-census or Pump tests undertaken for the Project groundwater assessment. In the event that this bore is used for ongoing monitoring purposes, it will be ground-truthed and its exact location determined.</p>
9.11	Chapter 3 - Description of the Project	3.4.1 TENEMENTS AND TENURES Refer to Figure 3.9 Gas pipeline starts at wells north of proposed mine site and runs through proposed mine head.		Noted. No change to map required.
9.12	Chapter 9 - Groundwater	9.6.5 LANDHOLDER BORES Statement: Refer to this paragraph Problem: This whole paragraph is admitting that there will be major damage caused to landholders' water supplies. We cannot wait until there is a problem – these issues need to be addressed before the mine commencement.		<p>Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low.</p> <p>Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p>

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				Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.
9.13	Chapter 3 - Description of the Project	3.4.6.1 WORKFORCE DEMAND "Workers accommodation village located 35km northwest of mine site" The distance would be closer to 50km.		The workers accommodation village is located approximately 35km in a direct line from the proposed mine site, this being approximately 50km by road.
9.14	Chapter 12 - Ecology	Figure 12-4 WETLANDS AND RIVER SYSTEMS WITHIN THE PROJECT AREA Statement: Refer to Figure 12-4 Problem: Drummonds gully (unnamed creek 2) does not stop inside project area but continues across Kilmore Rd and into "Kolane"		This information presented in the figure was sourced from the Bureau of Meteorology. It is acknowledged that the water course is known locally as "Drummonds Gully" and runs across Kilmore Road, into "Kolane" and through to Turkey Creek.
9.15	Chapter 3 - Description of the Project	3.4.7 WORKFORCE ACCOMMODATION "Construction workforce sourced locally so don't need accommodation" With unemployment so low in mining and regional areas this statement would be incorrect and more detail is needed.		The local labour market has experienced significant change in the last 6 months with an almost doubling of unemployment rates in the Mackay-Fitzroy-Central West region (which includes Emerald) between September 2012 and March 2013. This reflects the considerable slow-down in the minerals sector in the Bowen Basin. Based upon enquiries received between February and June 2013, there are considerable skills available in the local area and a number of temporary accommodation providers with capacity. This increases the likelihood of having a higher proportion of the workforce residing locally.
9.16	Chapter 14 - Social Impacts	14.6.4 AGRICULTURAL PRODUCTION Statement: ".....increasing the area of irrigated farmland....." Problem: There has been no mention of where they will get the extra water to achieve this.		SCC will not be seeking to utilise any existing agricultural water supplies. Subsequent to the EIS being prepared, an allocation of 1,000 mega litres of water per year from Sunwater's Nogoao-McKenzie Water Supply Scheme has been secured to supply water to the mine site. SCC will not be seeking to utilise any existing agricultural water supplies and will be looking to improve the efficiency of water use on Den-Lo Park. The current main dam is very inefficient, being shallow with a large surface area. It will be redesigned and modified when mining activity occurs underneath the dam to reduce the evaporation losses. More efficient irrigation systems will also be investigated.
9.17	Chapter 3 - Description of the Project	3.6.1.1 ON-SITE ROAD INFRASTRUCTURE "Possibility of sourcing basalt for roads within the project area" More SCL (Strategic Cropping Land) affected		Foundation materials to construct on-site infrastructure including roads will be sourced from the cut and cover and drift excavations. In the event that materials excavated are not sufficient to construct all onsite infrastructure SCC will investigate the possibility to source basalt from within the Project area which may require blasting. All extracted materials to be used for construction will be used within the proposed Project area. This would be the only above ground footprint of the Project. Excavated material would not be used outside the Project area. All works within the project area will be assessed under the SCL Act following the EIS process. SCC will be required to minimise and rehabilitate all impacts on SCL.

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9.18	Chapter 3 - Description of the Project	3.6.3.3 OFFSITE SUPPLY – SUNWATER Statement: “Discussions with SunWater have taken place to investigate options for a commercial agreement for supply from SunWater’s Fairbairn Dam” Problem: No water allocation from Fairbairn Dam		As noted above an allocation from Sunwater's Nogoia-McKenzie water supply scheme has been secured to supply water to the mine site.
9.19	Chapter 3 - Description of the Project	3.6.4 PROJECT WATER DEMAND Refer to Table 3.8 Statement: “Single long wall 518 MI/year, Dual long wall 913 MI/year” Problem: This water is drawn from underground aquifers which cause more problems for local landholders and their individual water supplies		The figures quoted from Table 3-8 do not relate to water to be extracted from groundwater aquifers. The figures notes are the anticipated annual volume of water required for operation of the mine, mainly dust suppression on the longwall and conveyors. As noted above, the water supply to the mine site has been secured from Sunwater.
9.20	Chapter 3 - Description of the Project	3.6.4.2 CLEAN WATER RUNOFF MANAGEMENT Statement: “Runoff upstream of the MIA, CHIA, coal stock pile etc will be diverted around their footprint areas and discharged into unknown creek.” Problem: Diverting natural water flow which could cause problems downstream		The diversion of surface water around the MIA and other areas will be achieved by realigning existing contour drains to avoid any potential for contamination from mining activities. The volume of water into the watercourse will be reduced by the volume of rainfall generated runoff from the MIA area. Further information regarding the potential impacts of surface water diversions are included in Chapter 8 - Surface Water.
9.21	Chapter 3 - Description of the Project	3.8.5.2 CROPPING LAND Statement: “The agricultural co-existence research committee will inform the most appropriate mitigation and rehabilitation strategies”. Problem: Research committee has no members experienced in Central Queensland’s cropping regimes.		Members of the Agricultural Co-existence Research Committee have been selected based upon the broad range of skills and experience each member has. Several members of the Committee have a long association with Central Queensland. The Committee will also draw upon local expertise as required.
9.22	Chapter 3 - Description of the Project	3.8.5.2 CROPPING LAND Statement: “Depending on the level of subsidence, the irrigation method in some areas may need to be altered from flood to pivot irrigations”. Problem: Already talking of changing strategic cropping land because of mining when all their statements say how mining and agriculture can co-exist.		The co-existence of mining and agriculture means the two activities can continue to take place, it does not mean agricultural activities won't need to evolve. Mining activity will undoubtedly change the land form as a result of subsidence. This will mean that agricultural practices will need to evolve in order for farming activities to continue to produce the same or great yields. In some cases centre pivots, or other forms of irrigation, will need to be considered.
9.23	Chapter 3 - Description of the Project	3.8.5.3 MINE INFRASTRUCTURE AREAS Statement: “Topsoil will be added” Problem: Returning topsoil – where is it coming from? Finite resource. All through EIS they talk about repairing all damaged areas with topsoil!! Where is it coming from? If an underground mine doesn’t damage above the ground why there is a need for returning topsoil.		This reference refers to the re-distribution of topsoil which has been removed and stockpiled on site to enable construction activities to take place. These activities are generally confined to the construction of the drift entry and the Mine Infrastructure Area. No topsoil is proposed to be imported to the site. Section 3.8.5.7 provides further information regarding the removal and re-use of topsoil.

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9.24	Chapter 4 - Climate	<p>4.1.1.1 ADDITIONAL PROJECT COMPONENTS NOT INCLUDED WITHIN THIS EIS</p> <p>Statement: "This EIS does not include the transport and infrastructure corridor"</p> <p>Problem: Proposed haul road and/or conveyor belt as well as powerlines all cross and alienate more strategic cropping land</p>		The infrastructure corridor and train load-out area are not part of the current assessment and as such has not been addressed in the EIS. This EIS has been developed to consider impacts associated with the mine area encompassed in MLA 70486. These areas are to be considered as part of a separate assessment.
9.25	Chapter 4 - Climate	<p>TABLE 4.1 CLIMATE AND WEATHER MONITORING STATIONS USED FOR CLIMATE ASSESSMENTS</p> <p>Statement: Refer to Table 4.1</p> <p>Problem: Distances from project area are incorrect.</p>		The distances have been checked and identified errors have been rectified in the table.
9.26	Chapter 4 - Climate	<p>4.3.1 STORMS</p> <p>Statement: "The prevalence of severe thunderstorms within the project area is expected to be low because severe storms are generally confined to small localise areas along the coast"</p> <p>Problem: This statement is grossly inaccurate, misleading, naive and shows a complete lack of understanding of the local climate</p>		The risk assessment has been based on the frequency and consequence of particular events. While it is acknowledged that severe events occur in the region, their relative frequency is significantly lower than many other regions throughout Queensland. Further clarification has been made in the final EIS relating to the risk rating of severe events.
9.27	Chapter 11 - Noise and Vibration	<ul style="list-style-type: none"> • 1178 Kilmore Road house is not included in the EIS and it is approximately 5km away from mine head. 		Sensitive receptors have been updated and added to maps and the table updated. The table now includes reference to the Kilmore Road house.
9.28	Chapter 4 - Climate	<p>TABLE 4.5 IMPACTS AND MITIGATIONS MEASURES ASSOCIATED WITH CLIMATE</p> <p>Statement: "Excessive rainfall – flooding is not expected to restrict access to the project area as local access roads will be upgraded to a higher level of flood immunity than currently exist"</p> <p>Problem: This statement again shows a lack of understanding of local climate.</p>		Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.
9.29	Chapter 5 - Land	<p>5.2.4 STRATEGIC CROPPING LAND ACT 2011</p> <p>Statement: "The establishment of the Springsure Creek Agricultural Project Steering Committee"</p> <p>Problem: This committee has no local expertise.</p>		<p>As noted above, members of the Agricultural Co-existence Research Committee have been selected based upon the broad range of skills and experience each member has.</p> <p>Several members of the Committee have a long association with Central Queensland. The Committee will also draw upon local expertise as required.</p>
9.30	Chapter 5 - Land	<p>Statement: "Mining will occur beneath Den-Lo Park for six years before taking place beneath other properties thus allowing for subsidence management techniques to become well established".</p> <p>Problem: If the subsidence issues cannot be overcome more strategic cropping land is destroyed. Just because</p>		SCC is committed to the co-existence of mining and agriculture and maintaining or improving agricultural yields. The Agricultural Co-existence Research Committee has been established to guide co-existence research aimed at maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas (among other things). With longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), it will enable

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		Bandanna own Den-Lo Park should not give them the right to destroy prime farming land.		research to be applied and mining methods and agricultural practices to be refined to minimise impacts on agriculture and maximise agricultural yields. The benefits of this initial period of mining can then inform discussions with other landholders prior to mining activities taking place on other properties.
9.31	Chapter 5 - Land	5.3.3.3 DENSITY AND SCALE OF SOIL AND LANDSCAPE SURVEY Statement: "This equates to one sample per 500 hectares." Problem: A lot of cropping paddocks are 80 to 120 hectares.		Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been completed for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping has been carried out at a scale of 1:50,000 as recommended by DNRM to provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites. Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008. Results from this study will be used to determine the SCL suitability of the area and supplied to DNRM to inform the Project SCL Protection decision. On completion these results will be used to further develop management programs and plans for the Project. Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For lands which are deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.
9.32	Chapter 5 - Land	5.4.1 TOPOGRAPHY Statement: Refer to Plate 5.1 Problem: Not typical of project area. Table 5.7 shows approximately 70 percent is dry land or irrigated cropping. This photo (Plate 5.1) is mischievous and deceiving.		Plate 5.1 reads - "The Springsure Creek Project area (Bandanna site fly over survey 2011)". The description does not suggest that the image is typical of the area. This plate title does not need to be amended.
9.33	Chapter 5 - Land	Figure 5-9 MAPPED GQAL ACROSS THE SPRINGSURE CREEK PROJECT AREA Statement: Refer to Figure 5-9 "Region where mine head is mapped as Class C2 land" Problem: §.73 irrelevant information §.73 irrelevant information With this in mind I don't think it is mapped correctly. I believe the land is better quality than stated.		Data for this figure was sourced from DERM. As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been completed for the MLA. Results from this study will be used to determine the SCL suitability of the area and supplied to DNRM to inform the Project SCL Protection decision. On completion these results will be used to further develop management programs and plans for the Project. Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For lands which are deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.
9.34	Chapter 5 - Land	5.4.5.5 STRATEGIC CROPPING LAND Statement: "Figure 5-10 and Table 5-14 show areas of potential SCL and non SCL" Problem: §.73 irrelevant information §.73 irrelevant information Maps are		Data for this figure was sourced from DERM. As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been completed for the MLA. Results from this study will be used to determine the SCL suitability of the area and supplied to DNRM to inform the Project SCL Protection decision. On completion these results will be used to



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		incorrect.		further develop management programs and plans for the Project. Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For lands which are deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.
9.35	Chapter 5 - Land	<p>5.5.1.1 TIMING OF SUBSIDENCE</p> <p>Statement: "Residual subsidence occurring both concurrently with active subsidence and possibility continuing for up to two years. The magnitude of residual subsidence consists of approximately 5-10 %"</p> <p>Problem: 10 % is approximately 300 mm – too much for contours and broad acre farming – severe storm events destroy contour banks if fall is not correct causing problems and losses with broad acre farming</p>		The Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. Management plans to be developed with affected landholders on a longwall panel by longwall panel and paddock by paddock basis will include measures for managing residual subsidence to minimise the impacts on agricultural practices.
9.36	Chapter 5 - Land	<p>5.5.1.3 MODEL PREDICTIONS</p> <p>Statement: "Modelling predictions indicate the maximum subsidence over the project area will range from 1.2 metres to 2.3 metres".</p> <p>Problem: Predictions are just that. It would be impossible to flood irrigate with that amount of subsidence.</p>		<p>The subsidence modelling which has been undertaken to date represents a worst case scenario and as such provides the basis for determining impacts. SCC has committed to basing management on worst case predictions to ensure the best outcomes. As such, the actual level of subsidence may be less significant than modelled and result in less severe impacts. Nevertheless, the management approaches employed will be sufficient to mitigate these impacts and ensure agricultural coexistence.</p> <p>Management for subsidence could include a number of measures such as pre-emptive measures installed ahead of subsidence or rehabilitative measures installed post-mining which taken together, will avoid any long term significant impacts. Impacts associated with subsidence will be addressed with individual landholders on a property by property and longwall panel by longwall panel basis. Given the rate at which subsidence will occur SCC is confident subsidence can be appropriately managed.</p>
9.37	Chapter 5 - Land	<p>5.6 POTENTIAL IMPACTS</p> <p>Statement: Refer to Table 5-16 - Classes subsidence as a medium risk issue</p> <p>Problem: This should be a high risk because of the major problems it poses for farming i.e. major drainage issues, permanent opening of cracks, country not able to be classed as SCL after mining because of the change in slope, soil parameters etc.</p>		<p>The risk assessment has been undertaken in accordance with relevant standards as described in Chapter 17 - Hazard and Risk. Additional information about this assessment has been included in Chapter 5 - Land.</p> <p>In the case of subsidence, although the likelihood of subsidence is high, the overall consequence is lower as impacts are neither permanent nor debilitating to the area. Therefore the overall assessment of the risk is medium. Management measures will ensure that the land can continue to be utilised for agricultural purposes and subsidence does not adversely impact agricultural yields.</p>
9.38	Chapter 5 - Land	<p>5.6 POTENTIAL IMPACTS</p> <p>Statement: Refer to Table 5-16 - Land Degradation - Water Ponding - Classed as low risk</p> <p>Problem: Should be high risk – would cause major problems to farming i.e. water logging severely limits plant development, leaches nutrients out of root zones etc.</p>		<p>As noted above, the risk assessment has been undertaken in accordance with relevant standards as described in Chapter 17 - Hazard and Risk.</p> <p>In the case of land degradation, and water ponding in particular, Chapter 8 - Surface Water and Chapter 12 - Ecology demonstrate that ponding is not expected to increase significantly as a result of subsidence. With the implementation of mitigation measures the impact of ponding will be negligible.</p>

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9.39	Chapter 5 - Land	<p>5.7.6.1 TOPSOIL MANAGEMENT</p> <p>Statement: "Topsoil will not be stripped under wet conditions"</p> <p>Problem: Practicalities would suggest that this would not occur i.e. All projects have a timeline and if waiting for the topsoil to dry out for 6 months means the project is held up these rules will be broken.</p>		The Environmental Management Plan for the project will outline how and when specified activities, including topsoil stripping, can be undertaken. Requirements in this plan will be specified to ensure compliance with environmental approvals and will be adhered to at all times.
9.40	Chapter 6 - Traffic and Transport	<p>6.3.1.4 GLENORINA ROAD</p> <p>Statement: "Whilst the road is generally in good condition....."</p> <p>Problem: The road is in fair condition for a rural class road but it will not handle the increase from mine traffic.</p>		Parts of the Glenorina Road, Wyntoon Road and Kilmore Road required to access the mine site will be upgraded to cater for the expected increase in traffic. Stakeholders including the Central Highlands Regional Council, Department of Transport and Main Roads, and the local School Bus Committee will be consulted in the design of the upgrade.
9.41	Chapter 6 - Traffic and Transport	<p>6.3.1.5 MILROY DOWNS ROAD</p> <p>Statement: "The road is approximately 7.5 m wide and partly sealed.</p> <p>Problem: The road is not sealed</p>		The EIS has been amended to reflect the unsealed nature of Milroy Down Road.
9.42	Chapter 6 - Traffic and Transport	<p>6.3.1.6 WYNTOON ROAD</p> <p>Statement: "Sealed part of Wyntoon Road is generally in good repair."</p> <p>Problem: The road is in fair condition and will definitely not handle an increase in mine traffic as it cannot handle the agricultural traffic at present.</p>		<p>Wyntoon Road, when assessed during the preparation of the EIS was in good repair.</p> <p>Regardless of the current condition of any of the local roads to be used as access to the site, these are all to be upgraded to provide all weather access and to cater for the volume and pavement loading of mine related vehicles.</p>
9.43	Chapter 6 - Traffic and Transportation	<p>6.3.1.7 KILMORE ACCESS ROAD</p> <p>Statement: "Kilmore Access Road will be the entry and exit point to the project"</p> <p>Problem: Kilmore Access Road is only a second class rural access road and will not handle the increased traffic from the mine operations</p>		As noted above, local road, including the section of Kilmore Access Road to be used to access the site, will be upgraded to cater for the increase in traffic.
9.44	Chapter 6 - Traffic and Transportation	<p>6.3.5.1 SCHOOL BUS ROUTES</p> <p>Statement: "It is assumed that buses on this route collect students for Gindie State School"</p> <p>Problem: No research or communication with the bus company has been undertaken by Bandanna in regards to this.</p>		<p>Information showing school bus stops has been sourced from the Central Highlands Regional Council and the Department of Transport and Main Roads.</p> <p>As noted above, SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
9.45	Chapter 6 - Traffic and Transportation	<p>6.3.5.1 SCHOOL BUS ROUTES</p> <p>Statement: "School buses generally operate from 7.30am to 8.30am and 2.30pm to 3.30pm.</p> <p>Problem: These hours are incorrect and also time needs</p>		<p>School bus times are noted.</p> <p>As also noted above, SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for</p>

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		<p>to be added for car travel to meet the bus s.73 irrelevant information</p> <p>s.73 irrelevant information</p>		<p>all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
9.46	Chapter 6 - Traffic and Transportation	<p>6.3.7.1 TRANSPORT CORRIDOR</p> <p>Statement: "Coal is intended to be transported from the Project site to a new rail loop train load out facility via a transport corridor on private land."</p> <p>Problem: This corridor is running over more SCL and Bandanna still has no agreements in place with current landowners. Also this corridor has to cross the Comet River flood plain causing major environmental issues in the process due to flooding etc</p>		<p>Impacts and issues associated with the infrastructure corridor and train load-out facility will be addresses as part of a separate approvals process.</p>
9.47	Chapter 6 - Traffic and Transportation	<p>6.4.1.1 PREDICTED TRAFFIC GENERATION DURING CONSTRUCTION</p> <p>Statement: Refer to Table 6-6 Site traffic generation – construction phase</p> <p>Refer to Table 6-7 Anticipated construction transport inventory</p> <p>Problem: Roads cannot handle the traffic load now, will definitely not be able to handle this increase in traffic.</p>		<p>As noted above, local roads to be used as access the site will be upgraded to cater for the increase in traffic.</p>
9.48	Chapter 6 - Traffic and Transportation	<p>6.5.3.1 TRAFFIC GENERATION OF LOCAL ROADS DURING OPERATION</p> <p>Statement: ".....traffic volume and a >150% increase in traffic volume is expected on Glenorina Road"</p> <p>Problem: Current road system cannot handle this volume of traffic.</p>		<p>As noted above, local roads to be used as access the site will be upgraded to cater for the increase in traffic.</p>
9.49	Chapter 6 - Traffic and Transportation	<p>Table 6-11 AADT ASSESSMENT DURING OPERATION</p> <p>Statement: Refer to Table 6-11</p> <p>Problem: There is no mention of Wyntoon Road or Kilmore Access road in this table.</p>		<p>Table 6-11 has been updated and 'local site access roads' have been included in the table.</p>
9.50	Chapter 6 - Traffic and Transportation	<p>Table 6-14 POTENTIAL IMPACTS AND RISKS</p> <p>Statement: Refer to Table 6-14</p> <p>"Impact associated with increased traffic delays – Risk level LOW"</p> <p>Problem: How can >150% increase in traffic volume still be a low level risk?</p>		<p>While the percentage traffic increase along local roads is high, the absolute increase in vehicles per day (vpd) is relatively low at approximately 400 vpd. As such the assessment of impacts is considered appropriate.</p> <p>Further information about the risk assessment is included in Chapter 17 - Hazard and Risk.</p>



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9.51	Chapter 6 - Traffic and Transportation	<p>Table 6-14 POTENTIAL IMPACTS AND RISKS Statement: "Impacts associated with school bus activity – Risk level LOW. School start and end times do not correspond with the start and end of mine shifts and the volumes of goods deliveries is anticipated to be low and spread throughout the day." Problem: § 73 irrelevant information § 73 irrelevant information These times are very close to shift change. A volume of goods deliveries is anticipated to be low!!!! What a deceiving statement. They are building a mine from scratch everything has to be delivered in by road.</p>		A Road User Management Plan will outline how traffic will use the local roads, including the timing for deliveries, heavy vehicles, etc. Stakeholders including the local School Bus Committee will be consulted in the further development of this plan to best manage any potential conflicts between school buses and mine related traffic.
9.52	Chapter 6 - Traffic and Transportation	<p>6.7.1.5 SCHOOL BUSES Statement: "Heavy vehicle movements will not be scheduled during school bus pick up or drop off times" Problem: There has been no communication with school bus operator. Problem: Practicality suggests that they will not be able to delay heavy haulage between the hours of 7.00am to 9.00am and 2.30pm to 4.30pm.</p>		As noted above, a Road User Management Plan will outline how traffic will use the local roads, including the timing for deliveries, heavy vehicles, etc. Stakeholders including the local School Bus Committee will be consulted in the further development of this plan to best manage any potential conflicts between school buses and mine related traffic.
9.53	Chapter 6 - Traffic and Transportation	<p>6.7.1.5 SCHOOL BUSES Statement: "However should local road or highway traffic volumes increase significantly consideration may need to be given to providing more formalised bus facilities....." Problem: How can >150% increase in traffic not be classed as significant??????</p>		<p>As previously noted, while the percentage traffic increase along local roads is high, the absolute increase in vehicles per day (vpd) is relatively low at approximately 400 vpd. As such the assessment of impacts is considered appropriate.</p> <p>Further information about the risk assessment is included in Chapter 17 - Hazard and Risk.</p>
9.54	Chapter 8 - Surface Water	<p>8.5.4 PONDING Statement: "Post subsidence ponding will occur up to approximately one metre in depth...." Problem: How can subsidence of 1.2 metres to 2.3 metres only cause ponding of up to one metre?</p>		<p>The predictions of post-subsidence ponding take into account existing slope and predicted final contours after subsidence - with no mitigation. As the slope or gradient of the natural topography increases, the depth of ponding that will occur reduces. As such, because existing topography will influence the final depth of ponding there is no direct correlation to the depth of subsidence.</p> <p>Post subsidence ponding models presented in Chapter 8 - Surface Water illustrate that the extent of ponding post subsidence (with no mitigation) is not significantly greater than current ponding levels. It is anticipated that with mitigation ponding will not result in significant impacts.</p>
9.55	Chapter 8 - Surface Water	<p>8.5.6 STREAM FLOWS Statement: "The greatest change in stream flows will occur in the three relatively small waterways at the downstream boundary of the project area". Problem: They may think they are small but these flows can make huge differences in dry periods for downstream agricultural producers.</p>		<p>Noted. Smaller streams will experience the greatest impacts. This is not to suggest that these streams are small and or insignificant in relation to flow is simply means that they are smaller than the other streams in the system.</p> <p>All stream flow assessments were based on unmitigated scenarios assuming that all subsidence occurs instantaneously. It is anticipated that mitigation will reduce impacts to stream flow significantly.</p>

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9.56	Chapter 8 - Surface Water	<p>Table 8-13 POTENTIAL IMPACTS TO SURFACE WATER Statement: Refer to Table 8-13 Problem: All of these risks are classed as low to medium impacts which at worst reversible in less than one year according to their Table. Changing creek flows and overland flows has a huge impact on the environment which sometimes cannot be seen for many years. It is naive to say that these problems can be rectified in less than a year.</p>		<p>Noted and the judgement of risk level has been reviewed. A summary of the review is provided below:</p> <p>Changes in the quantity and characteristics of surface water and overland flows were modelled. The results of the modelling predicted that any changes in flows are relatively small at the scale of the Springsure Creek catchment. It is acknowledged that changes at smaller catchment scales, namely those comprising the tributaries within the Project area itself, would be relatively larger but confined in extent.</p> <p>Based on the magnitude and scale of potential changes to flow being low at the Springsure Creek catchment scale, the risk of unmitigated impacts is not judged to be high (as before). That is: major, long-term and widespread harm is not expected. Consequently, it is considered appropriate to judge changes to flows as being of a medium risk in that harm would be contained on site or at a minimum in other areas. The unmitigated risk level of changes to flow is therefore unchanged.</p> <p>Notwithstanding this, Management Plans will developed for the Project, including subsidence management plans (SMPs) that will account for changes to watercourses. SMPs will be produced on a paddock by paddock and longwall panel by longwall panel and account for all existing natural and man-made features within its operating area. Overland flow and stream flow will be monitored and managed as required as part of these SMPs. These SMPs will require government approval before subsidence can take place. With these measures no significant impacts are predicted to surface water or overland flows.</p>
9.57	Chapter 8 - Surface Water	<p>Statement: Refer to: Operation- Impacts to surface water flows Problem: These risks are classed as low – minor unplanned onsite harm that does not extend offsite. No non-compliances with the environmental authorities and /or other approval conditions. How can surface water running into cracks in creek beds not be classed as extreme risks, as it could cause changes to underground water tables.</p>		<p>The risk assessment has been based on both the likelihood and the consequence of a impact occurring. As such, although some impacts may be likely their consequence (based on criteria for the assessment) is relatively low resulting in a low risk rating.</p> <p>Subsidence Management Plans will consider surface cracking and mitigation measures developed to ensure water loss associated with surface cracking is minimised.</p>
9.58	Chapter 8 - Surface Water	<p>8.6.1 CUMULATIVE IMPACTS Statement: “.....there is no other mine operational or proposed within the Comet River sub catchment.” Problem: This statement is misleading as there are already resource companies owning agricultural land within the Comet River sub catchments with the intention to mine in the future.</p>		<p>Statement has been rectified to address the fact that exploration activities are being undertaken in the region.</p>
9.59	Chapter 8 - Surface Water	<p>8.6.1 CUMULATIVE IMPACTS Statement: “This project will not be undertaking control releases and may only discharge water during extreme high flow or dangerous events” Problem: That is what every other mine has said and look at what has happened in the last four years with</p>		<p>The mine site water management strategy identified a water deficit, or shortage of water, for proposed operations. Using 86 years of historical rainfall data in a water balance model, dams have been sized to have no discharge during the 86 years of historical rainfall records to reduce the need for any potential uncontrolled discharges from the site. There are no proposed piped (controlled) releases from dams to the receiving environment.</p>

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		discharging mine water into the river system and the environmental damaged caused e.g. Ensham Mine, Mt Morgan mine.		All mine water infrastructure will comply with release limits and conditions contained in any Environmental Authority issued by DEHP.
9.60	Chapter 8 - Surface Water	8.7.1 CONTROL OF EROSION AND SEDIMENT Statement: ".....not exposing soil or undertaking clearing or earthworks during rain fall events. In addition a minimum number of heavy equipment should be used...." Problem: Can they now control when rain falls!!!! Practicality suggests minimum number of heavy equipment will not be followed.		All practical measures will be taken to minimise the effects of erosion and sediment loss. These will be detailed in the Erosion and Sediment Control Plan. Requirements in this plan will be specified to ensure compliance with environmental approvals and will be adhered to at all times.
9.61	Chapter 8 - Surface Water	8.7.2 CONTROL OF POLLUTANTS AND CONTAMINANTS Statement: ".....as uncontrolled discharges will be a result of rare rain fall events they will be infrequent...." Problem: Why does this make it alright to put their waste into a healthy river system? Also in the last 3-4 wet years this would have become a high occurrence!!!		Based upon the modelling undertaken in the mine site water management strategy, it is not anticipated that there will be uncontrolled discharges from the site. A total of 86 years of historic rainfall data was used in the water management strategy. Notwithstanding this, there may be rare occurrences that have not been reflected in the 86 years of data used that might result in the need for an uncontrolled discharge.
9.62	Chapter 9 - Groundwater	9.3.1 ECOLOGICAL VALUES Statement: "The dependence of vegetation on ground water in these areas is considered to be minor...." Problems: Why do all the trees die in areas affected by subsidence around the underground mines north east of Emerald?		Further assessment on the impacts on groundwater and groundwater dependent eco-systems has been undertaken and is presented in Chapter 9 - Groundwater, specifically sections 9.3.6.4 and 9.4. The dependence of some of the deep rooted plants on groundwater is minor and is expected to be adversely affected. The groundwater assessment undertaken is specific to the geology of the project area. We cannot speculate on the causes of tree deaths in other areas.
9.63	Chapter 9 - Groundwater	9.3.6.2 SURFACE WATER Statement: "No direct works are proposed within any of these six waterways...." Problem: Major subsidence issues with overland flow running down cracks caused by subsidence would be classed as 'direct works'.		Direct works refers to construction or operation activities, not any consequential impacts as a result of these. It is correct to state that no direct works are proposed within any of the six waterways.
9.64	Chapter 9 - Groundwater	9.3.10 GROUNDWATER FLOW REGIME Statement: "The majority of these wells are screened in the tertiary basalt, which forms the main water table aquifer of the project area" Problem: Subsidence will fracture the tertiary basalt layer interrupting ground water flow for the whole region. As this is the major water supply for most agricultural endeavours, any interruptions to the water supply can have disaster consequences e.g. we have 250 head registered feedlot – if we run out of water for one day these cattle will perish.		Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low. Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity. Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.

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9.65	Chapter 9 - Groundwater	<p>9.3.10 GROUNDWATER FLOW REGIME</p> <p>Statement: "The contoured water table indicates ground water flow to the north east...."</p> <p>Problem: s.73 irrelevant information of the mine so any interference with the tertiary basalt layer will have major consequences to our water supply.</p>		Noted.
9.66	Chapter 9 - Groundwater	<p>9.3.13 SURFACE AND GROUNDWATER INTERACTION</p> <p>Statement: Refer to whole paragraph</p> <p>Problem: This whole paragraph basically says they do not understand 100% the interaction between these two. How can they reliably model these interactions if they do not understand them fully? Agricultural producers' livelihoods rely totally on this source of underground water.</p>		Chapter 9 - Groundwater has been updated to better outline the relationship between surface water and groundwater.
9.67	Chapter 9 - Groundwater	<p>9.4.2.5 PREDICTIVE SIMULATIONS</p> <p>Statement: "Fracturing of rock above the subsided mine panel will modify both horizontal and vertical conductivity of overlying strata...."</p> <p>Problem: They admit that this will fracture the water seam and there will dewatering of the aquifer.</p>		Chapter 9 - Groundwater has been updated, including the hydrogeological conceptual model and numerical model. The updated and more comprehensive modelling suggests that cracking and dewatering of the Basalt is unlikely due to the depth of the seam and geology in the project area. Please refer to Sections 9.3 and Section 9.6 in Chapter 9 for more information.
9.68	Chapter 9 - Groundwater	<p>9.4.3.1 IMPACT OF THE PROPOSED OPERATION ON GROUNDWATER</p> <p>Problem: Maximum drawdown of water – they are only models. Drawdown models used north of Emerald have already been proven incorrect. Drawdown rates have already exceeded in 18 months, what the proposed drawdown was to be over thirty years of mine life. Also Bandanna is saying the drawdown effect will last for at least 400 years. For a project with a 30 year life span to have consequences on water tables for 400 years this seems to be paramount to environmental vandalism.</p>		As noted above, Chapter 9 - Groundwater has been updated, including the hydrogeological conceptual model and numerical model. The updated and more comprehensive modelling suggests that cracking and dewatering of the Basalt is unlikely due to the depth of the seam and geology in the project area. The predicted drawdown impact on groundwater resources is considered low.
9.69	Chapter 9 - Groundwater	<p>Figure 9-10 MAXIMUM DRAWDOWNS IN THE BASALT AND THE TIME AT WHICH MAXIMUM DRAWDOWN OCCURS</p> <p>Statement: Refer to Figure 9-10</p> <p>Problem: Bandanna has not even monitored bores on s.73 irrelevant where maximum drawdown is said to occur.</p>		<p>Additional groundwater quality and level data have been collected in May 2013. The groundwater sampling program which has taken place to date has targeted a number of bores in the area associated with the Project. These bores and sampling location have been selected to provide a representation of the area for groundwater assessment and modelling.</p> <p>Additional groundwater data will be collected as part of an on-going assessment. Please refer to Section 9.6 of the revised report for further information regarding the proposed groundwater management framework.</p>
9.70	Chapter 9 - Groundwater	<p>Table 9-17 POTENTIAL IMPACTS</p> <p>Statement: Refer to Table 9-17</p> <p>Problem: How can all these risks be classified as medium risks that are reversible in less than 5 years. If water</p>		<p>The risk assessment has been undertaken in accordance with relevant standards as outlined in Chapter 9 - Groundwater and further described in Chapter 17 - Hazard and Risk.</p> <p>Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in</p>

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		quality is decreased or quantity is affected that should be classed as extreme risk. We as agricultural producers rely totally on this water source – if 300 head of cattle drink it and die as a result of the mine contaminating our water table or run out of water, we would class this as an extreme risk. The only way is eliminate this risk is to have an alternate water supply (not relying on local aquifers as no one understands the interaction between the aquifers) before the project is to proceed. The water supply for each individual property would have to be self-sustaining as each property is self-sufficient now. We cannot rely on a mining company to supply each property with water 100 years from now when its life expectancy is only 30 years.		terms of quality or quantity. Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.
9.71	Chapter 9 - Groundwater	9.6.2 CONTROL OF POLLUTANTS AND CONTAMINANTS Statement: “All uncontrolled discharges will be reported to the EHP according to legislative requirements under the EP act”. Problem: This is all controlled by their own people 300 metres underground – fair chance not all will be reported, if any.		SCC is committed to achieving the highest environmental standards and will be fully compliant with all legislative requirements, including conditions of approvals. Any uncontrolled discharges will be recorded and reported to the relevant agencies.
9.72	Chapter 9 - Groundwater	9.6.4 DRAWDOWN Statement: “The degree that mitigation against drawdown is required will be become clearer if impacts are observed at the water table during operation”. Problem: Waiting until drawdown had occurred is too late – 250 head of cattle in a feedlot need good quality water consistently every day.		Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity. Notwithstanding this, monitoring of depressurisation at multiple levels below the Basalt can be used to identify possible cracking of the goaf and need to modify the mine plan before the impacts occur at the water table . Please refer to Section 9.5 and Section 9.6 of the updated Chapter 9 - Groundwater.
9.73	Chapter 10 - Air Quality	Table 10-5 SENSITIVE RECEPTOR LOCATIONS WITHIN WIDER PROJECT AREA Statement: Refer to Table 10-5 s.73 irrelevant information		Relevant tables and figures showing sensitive receptors have been updated.
9.74	Chapter 10 - Air Quality	10.2.3.4 EXISTING AIR ENVIROMENT Statement: “Monitoring was conducted for PM10 for a period of 8 days” Problem: This is not long enough to get an accurate base line		Subsequent to the EIS, additional baseline monitoring has been undertaken. An updated assessment report is included in Appendix A4-8 Air Quality, and Chapter 10 has also been updated. The Air Quality Management Plan will identify the most appropriate sites for long term air quality measurements to be undertaken during construction and operation of the mine.



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9.75	Chapter 10 - Air Quality	<p>Figure 10-1 SENSITIVE RECEPTOR AND MONITORING LOCATIONS WITHIN THE PROJECT AREA AND SURROUNDING AREAS</p> <p>Statement: Refer to Figure 10-1</p> <p>s.73, irrelevant information</p>		Relevant tables and figures showing sensitive receptors have been updated.
9.76	Chapter 10 - Air Quality	<p>Table 10-11 CONSTRUCTION PHASE DUST RESULTS</p> <p>Statement: Refer to Table 10-11</p> <p>Problem: Not accounting for haul road – even though the proposed haul road is a separate EIS – there is still going to have to be a haul road and this will go through more SCL. Dust from this will damaged more crops.</p>		Noted. Issues such as air quality associated with the haul road will be addressed through a separate approvals process.
9.77	Chapter 10 - Air Quality	<p>10.3.5.2 CONSTRUCTION</p> <p>Statement: “A reduction in the quantity of fuel consumed may be achievable though optimisation of construction activities and logistics. Optimisation of these activities may reduce the number of vehicles and/or trips required, the distance travelled and truck speeds”</p> <p>Problem: Statements like these are blatant assumptions and are naive at best when seeing how a mine operates; most normal people know that this will never occur. When you see four or five vehicles with one or two persons travelling to the site every day in the preliminary stages now, it would be doubtful that this would improve when the workforce expands 100 fold.</p>		SCC believes this is achievable and will be seeking to optimize activities to reduce fuel costs.
9.78	Chapter 11 - Noise and Vibration	<p>Table 11-1 SENSITIVE RECEPTORS</p> <p>Statement: Refer to Table 11-1</p> <p>s.73, irrelevant information</p>		Relevant tables and figures showing sensitive receptors have been updated.
9.79	Chapter 11 - Noise and Vibration	<p>11.5.2.2 VIBRATION ASSESSMENT</p> <p>Statement: “This assessment indicates that a mass charge indicates of 800 kg would not exceed the most stringent 5mm/s ground vibration criterion.....”</p> <p>Problem: Blasting – We feel, hear, see mine blasts at Minerva mine 25 km away so how will we not be worse 3-4 km away.</p>		<p>The 800kg mass charge was determined by a set methodology within an Australian Standard as noted in Section 11.5.2.2. An 800kg mass charge is considered 'worst case' and extremely conservative for this site. Regardless of this, the vibration assessment undertaken indicates that a charge of this size would not exceed the most stringent ground vibration criteria at the closest sensitive receptor, the Springton Homestead.</p> <p>SCC cannot comment on blasting activities which occur at other mines.</p>



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9.80	Chapter 11 - Noise and Vibration	<p>11.7.2.1 TRANSPORTING COAL TO THE SURFACE, COAL HANDLING WITHIN THE MIA AND VENT FANS OF THE UNDERGROUND MINE.</p> <p>Statement: 1. "Unnecessary revving of engines will be avoided"</p> <p>2. "Reversing will be minimised"</p> <p>Problem: Statements like this are ridiculous and can never be fulfilled – When dealing with a heap of staff not everyone will follow the rules</p>		SCC is committed to developing and maintaining a strong workforce who adhere to all site policies and requirements. Requirements relating to the unnecessary revving of engines and reversing will be included in site managements plans.
9.81	Chapter 12 - Ecology	<p>Figure 12-1 FLORA SURVEY LOCATIONS</p> <p>Statement: Refer to Figure 12-1</p> <p>s.73 irrelevant information</p>		The locations of all dams/wetlands have been sourced from EHP mapping. The location of the dam on the map is not pertinent to the information being portrayed by the map. Therefore, to avoid any potential confusion, the dam on Kilmore has been removed from Figure 21-1. Figure 21-1 shows the location of Flora surveys, the closest one to Kilmore being on the Kilmore Access Road.
9.82	Chapter 14 - Social Impacts	<p>14.3.1.3 ECONOMIC ACTIVITY AND LAND USE</p> <p>Statement: ".....and 5% supported dry land or irrigated crops."</p> <p>Problem: With such a small area in the Central Highlands suitable for cropping why would we take the risk that the subsidence caused by underground mining may destroy SCL.</p>		SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove co-existence while maintaining or improving agricultural productivity.
9.83	Chapter 14 - Social Impacts	<p>Figure 14-6 NUMBER OF BUSINESSES, CENTRAL HIGHLANDS</p> <p>Statement: Refer to Figure 14-6</p> <p>Problem: This graph proves that all the arguments about how much this mine will do for the local community are false. Close to 1200 businesses are supported by the agricultural sector and less than 100 are supported by the mining industry.</p>		Comment noted.
9.84	Chapter 14 - Social Impacts	<p>14.3.11.2 PROPERTY OWNERS</p> <p>Statement: ".....mining may provide contracting or employment opportunities or other benefits which could enhance the viability of farming operations....."</p> <p>Problem: Property owners don't need or want contracting or employments with the mine. The farms around it are large and viable.</p>		Comment noted.
9.85	Chapter 14 - Social Impacts	<p>14.3.13 SPRINGSURE</p> <p>Statement: ".....mining has played an important role over the past decade....."</p> <p>Problem: Benefits of mining to the region are dubious</p>		SCC is actively working with some members of the local Springsure community to contribute towards the sustainable growth of Springsure.



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		e.g. Rolleston mine is bigger than the proposed mine and it really hasn't done for much for Springsure. There are no new businesses, except a couple of new motels that cater for contractors.		
9.86	Chapter 14 - Social Impacts	14.3.13 SPRINGSURE Statement: "Providing financial contributions to support local organisations and events" Problem: With FIFO/DIDO the amount of money taken out of the community is a lot more than what they boast about putting back in.		Comment noted. SCC is committed to making a positive contribution to the local community and has to date provided support to a number of events including the St Patricks Day Races, Springsure Show Day and the Anzac Day lunch. SCC will continue to engage with the local community and support events and initiatives as appropriate.
9.87	Chapter 14 - Social Impacts	14.4.1.1 AGRICULTURAL PRODUCTION Statement: "The project is not expected to cause a reduction in agricultural production....." Problem: This statement and this paragraph are written by someone with a limited knowledge of farming i.e. Subsidence will be finished in weeks – experiences north of Emerald say that this is incorrect and actually takes a lot longer. Claims about providing yield increases are easy to make but nothing has been said about the profitability of the damaged area.		<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity.</p> <p>With an Independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p> <p>SCC will be seeking to work with landholders on an individual basis to develop surface management plans for each paddock. These plans will outline what the impacts of mining will be and how they are to be managed, including any considerations in the lead up to mining taking place.</p> <p>Active subsidence occurs within a few days or weeks. Disruptions of "about 1 week" refer to the period of time that no agricultural activity is likely to be permitted on paddocks as the 'active' subsidence takes place. Once that initial subsidence has taken place, agricultural activity is likely to be able to recommence.</p>
9.88	Chapter 14 - Social Impacts	14.4.2 POPULATION AND DEMOGRAPHIC CHANGE Statement: ".....5% of locally based workers unemployed...." Problem: CHRC Region unemployment rate is not that high to begin with. The predictions about population growth and business growth are only predictions and the experiences from Rolleston mine would probably prove them incorrect.		Comment noted. Data regarding employment and population growth are from the Queensland Government Statistician and reflective of a moment in time. Subsequent to that data being sourced, employment rates in the region have changed significantly as a result of the slow-down in the mining industry. Unemployment rates in the Mackay-Fitzroy-Central West area (which includes Emerald and Springsure) have almost doubled in the past 6 months.
9.89	Chapter 14 - Social Impacts	14.4.5 IMPACT ON PROPERTY OWNERS Statement: ".....the mine is not expected to cause a reduction in agricultural production....." Problem: This has not been proven anywhere in this region		<p>SCC and Bandanna energy is committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove co-existence while maintaining or improving agricultural productivity.</p> <p>With an Independent Agricultural Co-existence Research Committee and with longwall mining</p>

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				being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.
9.90	Chapter 14 - Social Impacts	Statement: "Disruptions to Farm operations during subsidence (approximately one week)....." Problem: Takes up to 18 months to prepare country for a crop depending on a number of factors e.g. Rainfall, weeds, previous cropping history etc. So saying that they will only be affected for a week shows a lack of research of the problems that will be accounted.		SCC will be seeking to work with landholders on an individual basis to develop surface management plans for each paddock. These plans will outline what the impacts of mining will be and how they are to be managed, including any considerations in the lead up to mining taking place. Active subsidence occurs within a few days or weeks. Disruptions of "about 1 week" refer to the period of time that no agricultural activity is likely to be permitted on paddocks as the 'active' subsidence takes place. Once that initial subsidence has taken place, agricultural activity is likely to be able to recommence.
9.91	Chapter 14 - Social Impacts	14.7 CONCLUSIONS Statement: ".....aims to provide permanent yield increases across the properties directly impacted by mining operations....." Problem: This claim is still to be proven and it may not be possible.		As previously noted, SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove co-existence while maintaining or improving agricultural productivity. With an independent Agricultural Co-existence Research Committee and with mining planned to take place on Den-Lo Park for the first 5 years, we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.
9.92	Chapter 14 - Social Impacts	14.7 CONCLUSIONS Statement: "While outlined in the draft SIMP, these aim to: *minimise stress on property owners and demonstrate that agriculture and mining can successfully coexist; and....." Problem: Broad acre cropping and mining have not been proven to co-exist and there are more issues with broad acre cropping than with other agricultural sectors because of the complexity of profitable grain growing.		SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We have committed funding to support an independent Agricultural Co-existence Research Committee to undertake research into co-existence. Landholders are an integral part of this and are invited to engage with the Research Committee at any time.
9.93	Chapter 20 - Key Commitments	20.1 INTRODUCTION Statement: ".....has established an Agricultural Co-existence Research Committee made up of respected agricultural consultants, industry professionals and academics." Problem: There are no locally respected consultants or farmers on this committee so its knowledge of farming in this environment would be very limited and any		Members of the Agricultural Co-existence Research Committee have been selected based upon the broad range of skills and experience each member has. Several members of the Committee have a long association with Central Queensland. The Committee will also draw upon local expertise as required.

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		outcomes or findings it produces would be of limited value.		
9.94	Chapter 20 - Key Commitments	<p>20.5 TRAFFIC AND TRANSPORT Statement: Refer to Table 20-5 "Notification to be given to the bus operators indicating the construction programme activities and proposed transport routes".</p> <p>Problem: There has been no contact with the bus operators so how would Bandanna know of any issues the bus companies may have.</p>		As previously noted, the local School Bus Committee along with other stakeholders will be consulted regarding the design of local road upgrades and the development of the Road Use Management Plan.
9.95	Chapter 20 - Key Commitments	<p>20.8 GROUNDWATER Statement: Refer to Table 20-8 "In the event that groundwater bores of local residencies are impacted from dewatering activities, to the extent that bore is unusable, SCC commits to reinstalling new bores to service the property".</p> <p>Problem: *Installing new bores after the problem has occurred is too late, ** Maintaining the self sufficiency of each individual property is paramount as we are all self-sufficient before mine activity.</p>		<p>The groundwater assessment undertaken indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>
9.96	Chapter 20 - Key Commitments	<p>20.10 NOISE AND VIBRATION Statement: "Following a complaint SCC will determine if additional monitoring should be undertaken".</p> <p>Problem: Prior experience in these matters has shown once a mine is up and going noise and blasting complaints are not taken seriously.</p>		SCC is committed to compliance with the highest standards and being responsive to community concerns. We have implemented target response times for enquiries at present and generally meet those. We are seeking to proactively work with the community to ensure strong communication lines with the mine site and develop communication protocols that best suit the local community. We will be aiming to identifying potential issues before they arise enabling proactive management. Where unforeseen issues arise we will aim to respond to those without undue delay.



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s.73, irrelevant information

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10.1	Chapter 9 - Groundwater	9.3.9 Groundwater Monitoring 16 bores were identified but only 6 of the 16 were revisited in November 2012 for Data collection – This is not good enough conclusive data. A much wider and more vigorous survey of all bores within the local water aquifer must be extensively monitored.		Subsequent to the EIS groundwater monitoring in 2012, an additional 9 bores were inspected during a field visit in May 2013. Please refer to Chapter 9 - Groundwater and specifically Section 9.3.8, which provide further information regarding the groundwater census.
10.2	Chapter 9 - Groundwater	9.5.0 Potential Impacts on Environmental Values See table 9 -17. Potential impact aqua contamination. A risk level of medium is far too high a risk to landholders. It is not acceptable.		<p>The risk assessment has been undertaken in accordance with relevant standards as described in Chapter 17 - Hazard and Risk and Chapter 9 - Groundwater, specifically Section 9.5.8.</p> <p>In the case of aquifer cross-contamination, the unmitigated risk is stated as medium. However, with the implementation of mitigation and management strategies, the risk decreases. Section 9.6.1.1 outlines the measures that could be used to reduce the risk of aquifer cross-contamination.</p>
10.3	Chapter 9 - Groundwater	9.6.5 Landholder Bores This statement is absolutely NOT acceptable to landholders and would create significant problems.		<p>Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low.</p> <p>Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>
10.4	Chapter 14 - Social Impacts	14.7.0 Conclusions <i>“While outlined in the draft SIMP these aim to minimise stress on property owners and demonstrate that agriculture and mining can successfully co-exist and.....”</i> A very fine line and short time frame to read and thoroughly examine the E.I.S statement of approximately 2000 pages. This short time frame has actually put an enormous amount of stress on landholders valuable farm management time.		<p>The proposed Springsure Creek Coal Mine Project requires an environmental authority from the Department of Environment and Heritage Protection (EHP) along with tenure from the Department of Natural Resources and Mines (DNRM). An environmental assessment is required by the Environmental Protection Act 1994 for an Environmental Authority to be granted. This can be managed through either the submission of an Environmental Management Plan or an Environmental Impact Assessment. For projects managed through an EM Plan it is only once the plan has been submitted, assessed by EHP and a draft Environmental Authority has been prepared that the public is provided with the opportunity to comment on the project.</p> <p>For the Springsure Creek Coal Mine Project a voluntary EIS has been prepared which provides the public with an opportunity to comment on the project at the EIS assessment stage as well as the draft Environmental Authority stage. The timeframes for assessment of an EIS, including the time provided to the public to make comment, are outlined in the Environmental Protection Act 1994. It is the intention of Springsure Creek Coal to continue to engage with directly and potentially affected parties and other stakeholders as the project progresses.</p> <p>The approval process followed is intended to provide the greatest opportunity for the public, including landholders, to provide comment on the proposal and influence the assessment undertaken by State Government.</p> <p>Springsure Creek Coal is committed to continuing to work with directly affected and nearby landholders and other stakeholders as the project develops.</p>



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10.5	Chapter 20 - Key Commitments	<p>20.8 Ground Water</p> <p><i>"In the event that groundwater bores of local residencies are impacted from dewatering activities, to the extent that the bore is unusable, SCC commits to reinstalling new bores to service the property"</i></p> <p>If the impact from dewatering activities to existing bores is unsuitable, then the installing of new bores will also be unsuitable. It has been proven that in drought years the mineral content and hardness of underground water rises significantly.</p> <p>Our underground bore water is used extensively for herbicide and insecticide spraying within our agriculture programme. Interference with the lowering of the water table would have a significant and serious effect on our successful cropping yield outcomes.</p>		<p>As noted above, the groundwater assessment indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>

CONTINUED RELEASE

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Department of Education, Training and Employment

Submission number	Topic	Comment	Recommendation / Suggestion	Response
11.1	Chapter 19 - SIMP	<p>The construction workforce is likely to be mainly contractors and subcontractors appointed to undertake various components of the Project. As these contractors are not yet appointed, it is not possible to provide details on where the construction workforce may be sourced from. As most workers involved in the construction phase will be employed by contractors and subcontractors, the recruitment, training and education of these workers will be the responsibility of those employers.</p> <p>All contractors will have training programs in place to address workforce management and recruitment of required skill sets.</p>	<p>The total workforce for the construction and operation phases of the project has been reported, however a clear breakdown of the occupations and the number of personnel required for each stage has not been included. By listing the specific occupations required and the expected number of staff for each occupation (rather than only reporting general categories) the government has access to better information which will assist with forward planning for skills and training needs. This information may not be available prior to Financial Investment Decision (FID) stage.</p> <p>As the proponent states that they will continue to develop plans and strategies and the composition of the workforce and the source of workers will not be known until recruitment commences, it is recommended that proponents meet with Skills and Employment and Skills Queensland at FID to discuss:</p> <ul style="list-style-type: none"> • setting KPIs and targets for inclusive employment strategies and reporting against them; and • to identify in more detail the workforce profile of the project and skilling and employment needs/opportunities. 	<p>Skills and Employment and Skills Queensland will be consulted with as requested.</p>

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Queensland Police Service

Submission number	Topic	Comment	Recommendation / Suggestion	Response
12.1	Executive Summary	Commitment by the proponent to develop a Traffic Management Plan (TMP) and Road Use Management Plan (RUMP) in conjunction with local authorities and the Queensland Police Service (QPS)	<p>The Queensland Police Service (QPS) welcomes the proponent's identification of the QPS as a key stakeholder in the ongoing consultation process.</p> <p>The QPS is seeking to establish partnerships with the proponent to develop road safety strategies and an ongoing dialogue for the management of any policing issues identified as relating specifically to the Springsure Creek Coal Project and its workforce. QPS requests the proponent nominate a key point of contact for liaison with QPS regarding the Project in general.</p>	Consultation will continue with QPS regarding traffic management and road use.
12.2	Executive Summary	<p>The proponent undertakes to implement an effective Social Impact Management Plan and acknowledges potential negative impacts in the Emerald and Springsure areas including skilled and un-skilled labour shortages and increased costs of living.</p> <p>The proponent also acknowledges potential for growth in the region through increased employment and business opportunities both in the construction and operational phases of the project</p>	<p>The QPS welcomes the development of a Social Impact Management Plan and acknowledges the implications that population growth and economic stimulus, particularly in terms of disposable income, may have upon community activities and public safety.</p> <p>The QPS seeks ongoing dialogue with the proponent and input into the development of the Social Impact Management Plan in terms of identifying and developing mitigation strategies relevant to policing matters.</p>	As noted above, consultation will continue with QPS regarding the development of the SIMP
12.3	Chapter 6 - Traffic and Transportation	<p>The proponent indicates the total heavy vehicle requirements during the 24 month construction phase to be approximately 1,182 trucks or 1.6 heavy vehicles per day, 80% of which are expected to be within the local area. The delivery of equipment utilising Excess Dimensional (ED) loads appears to have been overlooked.</p> <p>ED vehicles do not appear to have been considered in Tables 6-6, 6-7, 6-8 or 6-9 relevant to the Construction and Operational phases of the mine respectively as all of the vehicle types described appear to be standard size.</p>	<p>The movement of ED vehicles is a significant traffic movement and safety issue, particularly on regional routes already experiencing a high proportion of ED and heavy vehicle traffic such as those surrounding the project site.</p> <p>QPS is final approval agency with ED loads requiring permit processing capabilities where the loads originate in Central Region. The requirement for police escorts will impact on QPS resources and planning in terms of both the availability of officers and the provision of escort vehicles.</p> <p>QPS requests the proponent develop a Transport schedule/plan and delivery timetable. Providing advanced notification is essential for QPS to plan and schedule movement of excess-dimensional vehicles. The QPS should be considered a key stakeholder in the development of Traffic Management Plans.</p> <p>QPS requests the proponent provide proposed ED movement schedule / plans three months prior to the schedule commencing.</p>	<p>Noted. QPS has been included as a key stakeholder in the development of the Road Use Management Plan (RUMP).</p> <p>As part of the construction and operation phases of the development it is necessary that some indivisible components will be delivered by over dimensional (OD) vehicles. Where OD access is required it is necessary to provide pilot vehicles and police escorts, dependant on the size of the vehicle.</p> <p>SCC will liaise with the Heavy Vehicle Road Operations Program Office (HVROPO) in Rockhampton regarding OD use as early as possible. It is noted that a 6 month lead time to organise permits and personnel is required by this office. The community will also be advised of any OD vehicle activity related to the construction and operation of the Project. Strategies for communication will be developed in consultation with the local community and be included in the community engagement plan.</p> <p>The requirement to provide 3-months notice of any Over Dimensional vehicle movements will be included in the RUMP.</p>



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Submission number	Topic	Comment	Recommendation / Suggestion	Response
12.4	Chapter 14 - Social Impacts	Engagement in Social Impact Assessment (SIA) process. The QPS was not specifically engaged during the SIA process. Community issues associated with crime and safety are directly relevant to the QPS	<p>QPS requests the proponent specifically include the QPS in any future consultation process relevant to the Social Impact Management Plan and its ongoing evolution.</p> <p>Areas of interest for the QPS include Workforce and Accommodation; Housing and Affordability; Law and Order; Social Infrastructure and other social impacts.</p>	Consultation will continue with QPS regarding the ongoing development of the Social Impact Management Plan.
12.5	Chapter 14 - Social Impacts	The proponent acknowledges a demographic impact upon the Central Highlands with costs of housing purchase and rental rising rapidly as a result of the mining boom. Rental properties data for the Central Highlands indicates that rent is more than 50% higher than the median rent for Queensland.	<p>The QPS will require increased housing stocks to address staff increases in Emerald and Springsure. Lack of housing infrastructure has a negative effect upon staff attraction and retention. Police and Emergency Service workers fall into the low-medium income purchaser's category and are more likely to be in housing stress than their counterparts in other Queensland centres.</p> <p>The QPS will be required to source additional Government funding to provide housing for possible upgrades to Emerald and Springsure Stations.</p> <p>The QPS requests that consideration be given to the provision of a joint emergency services precinct in any land, housing development or proposals put before the Central Highlands Regional Council by the proponent.</p>	SCC will continue to monitor the housing market and work with stakeholders to develop relevant strategies as and when required to respond to local housing demand as a result of increased workforce.
12.6	Chapter 14 - Social Impacts	<p>The proponent has referenced a profile produced by OESR for Emerald, Bauhinia and Peak Downs local government areas in 2002/3 as an indication of crime rates in the areas.</p> <p>The proponent has also referenced a 2007 study into domestic violence in the Bowen Basin and Mackay regions to argue that mining cultures have little or no demonstrable association with domestic abuse.</p>	<p>QPS disputes the proponent's assumptions and would assert that crime profiles produced in 2002/2003 lack currency and do not reflect contemporary crime trends. The QPS also disputes the proponent assertion that the rate of serious criminal offences is much lower in the Region than for Queensland. The Rockhampton Police District, which incorporates the Emerald and Bauhinia areas is significantly above the State reported rate for serious assaults (57.9%), drug offences (52.6%) and domestic violence offences (136%) Recent studies (2010) indicate FIFO non -resident workforces in isolated mining camps lead to increased crime rates, particularly in relation to personal/domestic violence and alcohol/substance abuse.</p> <p>QPS experience with similar proposals reinforces these findings. Proponent's activities will create a significant impost upon policing services in Emerald and Springsure Divisions alone, which will require an upgrade of staffing and hard resources to cope with these and future calls for service.</p> <p>QPS requests ongoing consultation with the proponent during the SIMP process and development of Behaviour Management Plans/Code of Conduct for the proposed work camp.</p>	<p>Consultation will continue with QPS regarding the ongoing development of the Social Impact Management Plan.</p> <p>Based on previous consultation with QPS, the design of the camp includes a small meeting room near the village reception which can be used by Police as a private room as required to engage with village residents. This room is located near the security office as well to provide an opportunity for the Police to develop a relationship with the security personnel. In addition, Police access to the mine site is being considered as part of mine planning, again as a result of previous consultation with QPS.</p>

Springsure Creek Coal Mine Project

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
12.7	Chapter 14 - Social Impacts	<p>The proponent indicates peak work force during construction phase will be 300 staff on-site. A percentage of the workforce will be FIFO or DIDO from regional centres (possibly Mackay, Rockhampton, Brisbane) Peak work force on site during operations will be 600, with similar residential arrangements as above.</p> <p>Workforce in all instances predominantly male 25-30 year age group who will be confined during shift cycles to the accommodation village. Recent studies of similar sites to that proposed by the proponent with a large non resident work force have reported crime rates 2.3 times the state average (Carrington, McIntosh & Scott, 2010)</p>	<p>Large work force of males in the 25-30 year age group with high disposable incomes, combined with long shift cycles and relative isolation, may lead to increased calls for service for QPS in relation to:</p> <ul style="list-style-type: none"> • Alcohol / Intoxicant related violence • Issues of disorder and personal/domestic violence • Persons of interest located within work force • Attraction of illicit drug industry and prostitution industry to mine camps of this nature well documented by police intelligence sources <p>The proponent's assumption that 'mining cultures had little or no demonstrable association with women's experience of most forms of abuse' (14.4.6.3 & Appendix A4-15) appears to be contradictory to the study referenced in 14.3.8 which 'found nearly a third of women had experienced some form of abuse from their intimate male partner'.</p> <p>QPS requests consultation during ongoing development of Behaviour Management Plans/Code of Conduct and the development of protocols to enhance liaison between QPS and SCC Project management. QPS will nominate a liaison officer to meet on a periodic basis with camp management to discuss any ongoing issues.</p>	<p>QPS will be invited to participate in the development of the workforce management plan, especially relating to the development for strategies to encourage positive workforce behaviour.</p>
12.8	Chapter 17 - Hazard and Risk	<p>Proponent notes access to all areas with high risk of a security breach or unauthorised public access will be monitored. Proponent also notes in Section 17.9 Preliminary Hazard Analysis Results that the risk assessment for a security breach as 'High' with the likelihood is being 'unlikely' and the consequence being 'major'.</p> <p>Assessment does not appear to have addressed issue of Interest Motivated Groups or disgruntled landowners breaching site.</p> <p>No reference to Security plans for camp sites or work corridors.</p>	<p>QPS suggests the development of Security Plan in relation to this project and is prepared to consult in relation to these issues.</p> <p>Rise in Issue Motivated Groups (IMG) in relation to Resource Industry projects is well documented and possible lower standard of security may make for an easy target for sabotage and protests aimed at attracting media attention.</p> <p>Proponent also needs to consider disgruntled landowners in same bracket as IMG. QPS Stock Squad officers report landowners with high levels of anxiety regarding LNG and mine workers moving through land holdings, upsetting stock, leaving gates open, potential theft and generally disturbing the 'status quo'.</p> <p>Theft of fuel and construction items from large work camps and sites is also a growing trend.</p> <p>Suggest Proponent include QPS as a key stakeholder in the preparation of security plans for the project with a view to providing assistance in terms of future proactive patrols and enforcement activities. Suggest the development of a network and protocols to share appropriate information in relation to potential security threats.</p>	<p>QPS will be consulted regarding the emergency and incident response planning in relation to both the Workers Accommodation Village and the mine site. These plans will consider IMGs, disgruntled landholders, etc. The risk assessment relating to security risk within the EIS has been revised to better reflect the risk of unauthorised entry on site.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
12.9	Chapter 17 - Hazard and Risk	<p>The proponent states that an Integrated Risk Management Plan will include:</p> <ul style="list-style-type: none"> • Fire Safety and emergency • Response plans, including counter disaster rescue procedures <p>Plans to be prepared prior to the commencement of construction.</p>	<p>Some incidents will trigger a QPS investigations and the proponent should include crime scene preservation requirements in any response plans in relation to incidents, particularly those involving death.</p> <p>QPS requests involvement in the development of response plans and requires protocols included for QPS notification of incidents, particularly those relevant to the Coroners Act 2003 and the Police Powers and Responsibilities Act 2000.</p>	<p>QPS will be consulted regarding emergency and incident response planning. The plans will include provisions for crime scene preservation requirements in relevant response plans for any criminal activities undertaken on site that will trigger a QPS investigation.</p>

CONTINUED RELEASE

Springsure Creek Coal Mine Project

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Department of State Development Infrastructure and Planning – Social Impact Assessment Unit

Submission number	Topic	Comment	Recommendation / Suggestion	Response
13.1	Chapter 14 - Social Impacts	<p>The operational workforce is to be given the option of residing locally. An additional 139 houses are expected to be required, with 111 in Emerald and 28 in Springsure (Social Impact Assessment Report A4-15, Section 8.3). The housing market in Central Highlands is characterised by rapidly rising rents, declining affordable rental stock and increasing property values. The region is the second most expensive in Queensland with rents double the Queensland mean, including \$500/week in Emerald and \$450/week in Springsure EIS Chapter (14.3.4). The negative risk of increased housing costs is assessed as low for Emerald and high for Springsure (EIS Tables 14.4; 14.5). The cumulative impact assessment (EIS 14.5) finds increased demand for housing in Central Highlands, resulting in further rises in both house prices and rental costs.</p> <p>Given these assessments, the draft SIMP does not appear to adequately address these impacts. The higher number of additional houses estimated to be required in Emerald (111) is assessed as low risk, and the lower number in Springsure (28) assessed as high risk. Although the percentage increase in additional housing demand arising from the project is lower in Emerald than Springsure, the absolute volume of housing required is material.</p> <p>In the action plan for mitigation of housing impacts, there is no undertaking to provide any additional housing, reinforced by the statement that SCC is not proposing to purchase or rent accommodation for workers. SCC undertakes only to work with others in the housing industry, such as local developers and the council, to seek a timely release of development to meet local housing demand (EIS 19.6.3).</p>	<p>It is suggested that the action plan should incorporate the process and performance measures to ensure that the volume and timing of additional housing can be provided with an outcome which aims to achieve reasonable costs to workers.</p> <p>It is specifically recommended that 139 houses be constructed by the proponent to mitigate operational worker housing impacts at Emerald and Springsure.</p>	<p>Section 14.4.3 of the EIS states “Using the above workforce data and population assumptions, an additional 139 houses are expected to be required in the Central Highlands over the Project life, as a result of the Project.” It should be noted that this assessment of 139 houses is expected to be required over the Project’s 40 year life, and not within a more defined timeframe.</p> <p>Subsequent to the baseline data regarding housing being presented in the Social Impact Assessment (Appendix A4-15 and Chapter 14 of the EIS), the housing market in the Central Highlands has experienced significant change corresponding to a decline in activity in the resources sector. In May 2012 there were approximately 200 properties for sale in Emerald and since mid-June 2012 this figure has gradually increased to remain steady at around 500 since December 2012. Over the same period, the number of people looking at each property (on average) has declined from over 10 per property to between 2 and 3 since October 2012. Property prices have however tended to remain fairly constant (Source – realestate.com.au).</p> <p>This change in the housing market is acknowledged in Section 19.5.4 (Chapter 19 of the EIS) which notes that the changes since mid-2012 are likely to lessen any impacts on housing in the local area.</p> <p>While the submission does not propose a timeframe for houses to be constructed, the recommendation “that 139 houses be constructed by the proponent to mitigate operational worker housing impacts at Emerald and Springsure” could have adverse impacts on the local housing market if the construction of any new homes was not planned and undertaken in response to trends within the housing sector.</p> <p>It is premature to be constructing houses at a time when the current housing market in the Central Highlands is able to accommodate growth. The proposed action included in 19.6.3 to “Continue to monitor the housing and rental markets in Springsure and Emerald along with the wider Central Highlands Region and determine appropriate responses in consultation with key stakeholders” remains the most appropriate response at this time.</p> <p>No change to the proposed actions in regard to construction of housing is proposed.</p>

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Fitzroy Basin Association

Submission number	Topic	Comment	Recommendation / Suggestion	Response
14.1	Chapter 3 - Project Description	Rehabilitation and Decommissioning Management Strategy: This section contains criteria and performance indicators for rehabilitation outcomes, but no actions are described	The proponent describes the actions that will be undertaken to achieve the rehabilitation and decommissioning outcomes described in the EIS. With specific regard to revegetation (if required due to subsidence), FBA submits that seeds must be sourced from endemic species of local provenance to ensure the area being rehabilitated reflects, as closely as possible, the surrounding vegetation. FBA suggest that the proponent undertakes a seed collection program to source seeds from the mine site before mining takes place. If appropriate quantities of seeds cannot be found on the site, additional seeds should be sourced from neighbouring properties. Tube stock should be considered as a means of accelerating revegetation efforts.	Noted. EIS has been amended to provide for planting using species of local provenance within the overall rehabilitation framework.
14.2	Chapter 5 - Land	Land Disturbance: The EIS states that "progressive rehabilitation of disturbed areas will be undertaken where possible", however no actions are described.	The proponent describes the actions that will be undertaken to achieve the rehabilitation of disturbed areas.	A subsidence management plan will be implemented before construction commences, it will contain detailed control/mitigation measures which are will then be periodically reviewed and amended as necessary. SCC recognises that there is always room for improvement so management procedures will be adapted and improved upon if necessary from evidence gained from the Den-Lo Park site as it becomes available.
14.3	Chapter 18 - EM Plan	Reporting: External: This section describes what external reporting will take place over the life of the mine.	FBA submits that the external environmental reporting should be made available to the public via the proponent's website. The reporting should detail the results of the environmental monitoring program, including the impacts of subsidence on watercourses, water quality and vegetation communities, as well as any mitigation performed and the outcome of that mitigation.	SCC notes FBA's request. However, it is not a mandatory requirement of an Environmental Authority to publically disclose the results of the environmental monitoring programme. Annual reports will only be submitted where required law detailing compliance, non-compliance and measures to rehabilitate any non-compliances.
14.4	Chapter 18 - EM Plan	Control Strategies: Ongoing monitoring program: The Ecological Monitoring Program will assess ecological, wetland and stream health, and subsidence, both before the mine's construction and during operation, however the actions of the monitoring program are not described.	The proponent describes how the flora, fauna, stream health and wetland monitoring will be performed, and how the results will be reported, both to the public, and to administering authorities. This should occur throughout the mine's life, from construction through to decommissioning and mine closure.	The details of the Ecological Management Program will be expanded following the EIS process. Typically, ecological monitoring would evaluate changes to species numbers and species richness, and correlate these to changes in extent and / or quality of habitat, with the latter accounting for the results of physical monitoring results collected through related monitoring programs e.g. water quality, etc. Monitoring would be carried out throughout the project, including prior to and during construction, throughout operations and post-closure / as part of rehabilitation, as appropriate.

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Response to Submission to EIS



s.73, irrelevant information

Submission number	Topic	Comment	Recommendation / Suggestion	Response
15.01	Chapter 6 - Traffic and Transportation	<p>Stock Routes - "A number of stock routes exist along roads within the general vicinity of the Project."</p> <p>Although shown in Figure 6-5, there is no mention made of the stock route along the Glenorina Road to the Milroy Downs Road.</p>	<p>This section of stock route should also be included in any consultations.</p>	<p>The EIS has been updated and the stock route along the Glenorina Road and to Milroy Downs Road has been included in the assessments.</p>
15.02	Chapter 6 - Traffic and Transportation	<p>"As Glenorina Road is a site access road, it will experience an AADT increase of approximately 84%, primarily associated with an increase in private trips (light vehicles) due to staff accessing the site. Heavy goods vehicle traffic on Glenorina road is also predicted to increase by 62% due to materials and machinery being transported to and from site."</p> <p>2. This is a huge increase in traffic volume, especially for heavy vehicles. These roads are essential to the large rural area that they service and must be maintained at a safe and efficient level. School bus runs also use the Glenorina and Arcturus Roads so student safety must be considered with the increase in traffic.</p>	<p>More consultation is needed with landholders, CHRC and DTMR to determine where upgrades and wider shoulders on the roads are necessary, and where to construct overtaking and passing lanes. A source of funding must be available to keep the roads safe and trafficable.</p>	<p>SCC will work with stakeholders including the Central Highlands Regional Council (CHRC), Department of Transport and Main Roads (TMR), the school bus committee and members of the local community to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current.</p> <p>SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
15.03	Chapter 6 - Traffic and Transportation	<p>Mine Access Roads - "SCC will consult with DTMR and CHRC with regards to required upgrades and road works which will be undertaken in accordance with DTMR guidelines."</p> <p>There will be major impacts from the increased volume of traffic and heavy loads using the access road. The bitumen road surface is already continually deteriorating after the prolonged wet period, and this is caused by the local traffic currently using the road. Road shoulders are collapsing, the bitumen surface is failing, pot holes and tyre gouging are appearing and erosion from creeks and gullies have taken literally years to repair. The gravel surfaces are seasonally good and bad depending on the level of maintenance carried out.</p>	<p>Consultation is necessary to establish which body will be financially responsible for funding the initial upgrades and then maintaining the roads in a safe condition, as large amounts of money will be required on a regular ongoing basis.</p>	<p>SCC will work with CHRC and TMR where appropriate with regards to the maintenance of local roads frequently utilised by mine related vehicles. SCC will work with CHRC and TMR to maintain these roads, ensuring road safety for all users.</p>
15.04	Chapter 6 - Traffic and Transportation	<p>Flooding Upgrades- "both DTMR and CHRC advised that they have no records of flood immunity of any roads in the vicinity of the mine."</p> <p>There are six major waterways and at least six minor waterways on the Glenorina and Wyntoon Roads that would need to be addressed so as not to have buses and workers stranded on the roads while commuting to and from work during storms or periods of heavy rainfall.</p> <p>When some of these creeks flood the roads are impassable for</p>	<p>More consultation and planning is needed. The construction of an extended high level bridge for Minerva Creek should be considered, and upgrades of other crossings would be necessary.</p> <p>Also more community consultation is needed to determine if the proposed road flood mitigation measures will be sufficient. More signage is needed to name and measure dangerous waterways.</p>	<p>As noted above, SCC will work with stakeholders including the Central Highlands Regional Council (CHRC), Department of Transport and Main Roads (TMR), the school bus committee and members of the local community to discuss the design of local road improvements to cater for all road users, including the level of flood proofing, signage, etc. SCC is committed to working with stakeholders to upgrade local roads that maximise safety for all road users.</p>



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		<p>up to four days at a time because of the water heights. Usually they are not trafficable even after the water levels drop because the crossings have been washed out and severely eroded.</p> <p>At present there is a high risk of vehicles being stranded between these creeks. There have been several vehicles swept off the bridge while attempting to cross Minerva creek on the Glenorina Road 23 kilometres south east of Gindie. The water in the Minerva Creek channel runs with a strong current and often breaks its banks to spread more than a metre deep and 1.5 kilometres wide. It is fortunate that no fatalities have occurred there as yet.</p>		
15.05	Chapter 6 - Traffic and Transportation	<p>General Road Safety - "The provision of traffic management controls which will facilitate the safe movement of goods, people and pedestrians; and Operational procedures for activities undertaken during wet weather periods."</p> <p>In good weather the movement of farm machinery and road trains carrying grain and cattle occurs along these roads all hours of the day and night, and much more frequently during harvest time. Due to the nature of their heavy and sometimes unstable loads (in the case of livestock) where would oversize loads of mine equipment be able to pull over to allow these trucks to pass safely? Giving prior notice would be extremely difficult, given the large number of trucks and contractors that frequently cart from different farms and different depots at any one time. There is also difficulty contacting these drivers because of the black spots in the mobile phone service that currently operates in this area.</p> <p>Local farmers rely on these roads and use them wisely. In times of wet weather heavy truck and machinery movement is kept to a bare minimum so as not to further damage the roads.</p> <p>Also during times of wet weather vehicles other than four wheel drives which have to move off the road to allow the oversize loads to pass would likely become bogged in the sodden black soil table drains. Provision would also need to be made for livestock and machinery to cross the roads safely and efficiently where landholders require these facilities.</p>	More consultation with the community and landholders is needed to gain accurate knowledge and information.	SCC understands the road is a shared community asset and will endeavour to work with landholders to manage any impacts. As noted above, SCC will work with stakeholders to discuss the design of local road improvements to cater for all road users.



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15.06	Chapter 6 - Traffic and Transportation	<p>"This Project as a standalone development is not expected to have a significant impact on the local or wider road network." This Project will have a huge impact on the local road network, with traffic volume of both light and heavy vehicles expected to nearly double at some stages of the mine life. The roads are struggling to cope with the local traffic currently using them. The prolonged period of wet weather has caused a lot of damage to the road surfaces and foundations.</p>	More funding will be necessary to upgrade and then maintain the road network at a safe standard.	SCC has committed to upgrading local roads to be used as access to the mine site and will be consulting with a number of stakeholders regarding the design and ongoing maintenance of the roads to ensure it remains at an agreed standard.
15.07	Chapter 9 - Groundwater	<p>Agricultural Use - "Groundwater in the area is routinely used for both stock watering and irrigation."</p> <p>We rely on groundwater to supply our house and stock. What will be the consequences in the hopefully unlikely scenario of our bores going dry or suffering a major drawdown?</p>	We ask that SCC consult with us and provide us with access to their water pipeline, allocating us a sufficient quantity of water to supply our house and garden and our livestock. We also ask that this be an ongoing agreement at no cost to us, as it is possible that we may require water to be supplied from another source for hundreds of years after the Springsure Creek Mine has run its course and closed.	<p>Further discussions and meetings have been held regarding groundwater and air quality monitoring at your site and these discussions will continue.</p> <p>Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low.</p> <p>Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>
15.08	Chapter 9 - Groundwater	<p>"The active dewatering of the coal seam at depth in order to facilitate mining has potential to impact on overlying groundwater systems. Active dewatering will occur for the 40 year duration of mining."</p> <p>Water is a precious resource and cannot easily be replaced. It may be hundreds of years , if ever, before the drawdown and disruption caused to the water table and underground streams recover from the dewatering , subsidence and other effects of underground mining. What if the underground water that may be left is contaminated with carcinogenic compounds for years to come?</p>	After community consultation meetings SCC became aware of the location of our farm and has agreed to monitor our registered bores for drawdown and water quality.	As noted above, the groundwater assessment undertaken indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity. SCC will continue to monitor groundwater from your bore and should results indicate changes as a result of the mine activity, we will work with you to rectify any potential impacts.

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15.09	Chapter 9 - Groundwater	<p>Landholder Bores - "Any registered landholder bores located in areas of significant drawdown may need to be deepened or replacedDeepening of these bores may not be possible and these bores may need to be re-located. In the event that groundwater bores are damaged due to mining activities, sec will maintain supply of groundwater as agreed with the landholder."</p> <p>We need access to an alternative water supply. In the event that our bores do go dry, it will not be pertinent to drill more bores as it is likely that the water table will no longer have sufficient water supplies available to pump from. Therefore we ask again that we be given access to adequate water supplies from the sec water pipeline or other alternative at no cost to us.</p>	We ask that SCC consult with us further on this matter regarding continuity of a secure water supply.	<p>As noted above, the groundwater assessment undertaken indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity. Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low.</p> <p>Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>
15.10	Chapter 10 - Air Quality	<p>Relevant Legislation and Policies - "Dust and particulate matter (PM) and a number of other emissions can impact the environment, human health and amenity depending on the size of the particles and the concentration."</p> <p>We are concerned about coal dust and other carcinogenic residues spreading through the air and the effect that this may have on people with compromised lungs, asthma and other respiratory complaints.</p> <p>Is it known if these pollutants and carcinogenic dusts will have any effect on our food and grain crops and the pastures that our cattle and other stock consume? The proposed mine site is surrounded by thousands of hectares of prime agricultural land.</p>	More air quality monitoring needs to be carried out to ensure that dust and other emissions are controlled.	<p>Subsequent to the EIS being developed, additional baseline monitoring has been undertaken and results included in a revised technical report in Appendix A4-8 - Air Quality and Chapter 10 - Air Quality.</p> <p>The air quality modelling undertaken concludes that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations.</p> <p>An Air Quality Management Plan will specify sites for long term air quality measurements during construction and operation. These will be "real time" measurements ensuring that any exceedances are immediately realised and acted upon.</p>
15.11	Chapter 10 - Air Quality	<p>Sensitive Community Receptors - "Sixteen sensitive receptors (homesteads) were identified, using aerial imagery and on ground assessment, as having potential to be impacted by the Project activities."</p>	s.73 irrelevant information	<p>Relevant tables and figures showing sensitive receptors have been updated, including your home.</p>
15.12	Chapter 10 - Air Quality	<p>Wind Speed and Direction - "Winds occur predominantly from the east to south east during spring and summer. These continue through to mid-autumn and in late autumn are generally more south easterly."</p> <p>We have concerns about coal dust and other air particles being carried in our direction on the prevailing winds, and the effect</p>	After community consultation meetings SCC became aware of the location of our farm and has agreed to place an air quality monitor near our homestead. More consultation is needed with the community regarding safe drinking water.	As noted above, the air quality modelling undertaken concludes that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations. Section 10.2.8 in Chapter 10 - Air Quality identifies mitigation measures that can be implemented to control dust and particulate matter.



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		<p>this may have on existing air and pasture quality. This dust will also collect on our roofs over time and may contaminate our tank drinking water.</p>		
15.13	Chapter 10 - Air Quality	<p>Operation - "The operational phase involves the transportation of coal from the drift into a sizer before stockpiling above the surface. The most significant dust is produced from the sizer, transfer of coal to and from the stockpile and vehicle movements."</p> <p>Water dust suppression methods will be used on coal stockpiles and roads, but will this be sufficient to control coal dust created during the sizing, conveying and dumping of coal and the out loading of trucks or conveyor? How much coal dust will the dry separation method to be used at the MIA create?</p> <p>We can see from our farm clouds of black coal dust rising and drifting through the air from the railway coal load out facility at the Minerva Mine. It is an alarming sight to see so much coal dust dispersing through the air.</p>	<p>s.73 irrelevant information</p> <p>s.73 irrelevant information</p> <p>What procedures will be demonstrated if any levels of pollutants are exceeded in any of the monitoring stations?</p>	<p>SCC cannot comment on the management practices at another mine site. However, our air quality modelling indicates that the greatest impacts are predicted to occur at the Springton Homestead and Den-Lo Park which are approximately 3 km south east and 3.8 km south of the MIA mine access shaft respectively. Predicted levels at the nearest six sensitive receptors to the mine operation activities are all well below the relevant criteria.</p> <p>Notwithstanding this, we will be monitoring air quality with 'real time' air quality monitors which can indicate immediately if there are any potential issues which will be addressed without delay.</p>
15.14	General	<p>On a broader note please consider that the prime agricultural land contained within the Springsure Creek Project is a finite resource in Australia. As urban sprawl and mining encroaches on more and more of our fertile land, the volume of food production as a whole is becoming dependant on the remaining viable land in Australia.</p>	General comment	<p>SCC is committed to the co-existence of mining and agriculture and maintaining or improving agricultural yields. The Agricultural Co-existence Research Committee has been established to guide co-existence research aimed at maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas (among other things). The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided land.</p> <p>With longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), it will enable research to be applied and mining methods and agricultural practices to be refined to minimise impacts on agriculture and maximise agricultural yields. The benefits of this initial period of mining can then inform discussions with other landholders prior to mining activities taking place on other properties.</p>

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Central Highlands Regional Council

Submission number	Topic	Comment	Recommendation / Suggestion	Response
16.01	Chapter 14 - Social Impacts	Comprehensive TOR Cross-reference table	No Comment	Noted. No Action Required
16.02	Chapter 19 - SIMP	Local Industry Participation-development and implementation of a Local Buy Strategy	Establishment of a Local Buy Program that is promoted and established during the early stages of the project to ensure that business meet the requirements of the company or have the opportunity to become supply chain ready within the timeframes of the development of the project. Incorporate liaison through Queensland Resources Council & recent experience of CHDC.	A draft Local Content Strategy has been developed in accordance with the Queensland Resources and Energy Sector Code of Practice for Local Content released by the Queensland Resources Council in 2013. CHDC, CHRC and other agencies such as DSDIP will continue to be consulted as the strategy develops.
16.03	Chapter 19 - SIMP	Workforce Management Plan- CHRC supports initiatives to encourage integration of non-resident workers into the community	At the accommodation village, encourage integration into community activity and local spend through provision of regular transport to towns to do shopping, recreation, sport, travel (airport), medical appointments. Provide financial training and support for workers to assist with planning for the future and managing finances	These initiatives will be considered as the development of the workforce management plan continues.
16.04	Chapter 19 - SIMP	Stakeholder Engagement and Community Development- CHRC supports the plans for ongoing community development and encourages SCC to work with existing groups to leverage effort	Develop a Communications Strategy to keep the region informed of developments	A Stakeholder Engagement Strategy has been developed and is included in Section 19.5.1 of the SIMP. Short - medium term activity plans are then developed consistent with this strategy to engage specific stakeholder groups.
16.05	Chapter 19 - SIMP	Design and operation of workers accommodation village	Liaise with CHRC and others in relation to management of wastes from the village and clarify energy needs of village (and project generally) to determine potential impacts on network. Discuss flight arrangements, likely parking and other transport needs for Emerald Airport. Opportunity for direct links to other centres.	A Material Change of Use has recently been approved by CHRC for the Workers Accommodation Village (approval reference 4006/13). As part of this, Council has been consulted regarding the management of wastes along with other potential impacts on roads and airport, etc.
16.06	Chapter 8 - Surface Water	Water quality management plan- When will the Plan be implemented and who will carry out assessments (external audit?) .	Discuss with CHRC Water Infrastructure team to clarify risks to CHRC infrastructure and town water supplies Outline mitigation measures to ensure	The WQMP will be implemented prior to the commencement of construction. Further consultation will be undertaken with CHRC to clarify risks to infrastructure and town water supplies. Once risks have been identified then mitigation measures will be developed. The WQMP will also assess the possibility/feasibility of recycled and not potable water sources.

Springsure Creek Coal Mine Project

Response to Submission to EIS



Submission number	Topic	Comment	Recommendation / Suggestion	Response
		Continued availability of water for agriculture	accessibility of water when they limited rainfall reduces capacity and overland flow and run off are not viable options. What capability exists to utilise recycled, non potable water in the future- e.g. water by-product from water treatment plants, CSG production, feedlot overflow	Further discussions with CHRC will be undertaken at a later, more detailed phase of infrastructure planning.
16.07	Chapter 9 - Groundwater	Changes in groundwater conditions appear to have low-medium impact on existing agricultural users	Specify responsiveness of monitoring system and how impacts will be mitigated, particularly in case of sudden loss of water supply	Please refer to Section 9.6 for proposed monitoring and mitigation strategies. The Groundwater Management Plan will be developed in consultation with relevant regulatory authorities and landholders.
16.08	Chapter 6 - Traffic and Transportation	Impact of construction and operations on roads network, in particular Glenorina Road	Liaise with CHRC in detailed design and construction phases to review impacts on local road network. Specifically, the maintenance of gully crossings and the potential need for upgrades will need to be assessed	SCC will continually liaise with CHRC in respect to road design and any potential upgrades.
16.09	Chapter 14 - Social Impacts	<p>The Social Impacts identified for Springsure can be verified through the CH2022 Springsure Survey Report</p> <p>The Social Impacts identified for Emerald can be verified through the CH2022 Emerald Survey Report</p> <p>Cumulative Impacts identified for Central Highlands Region can be verified through findings in the CH2022 Central Highlands Survey Report</p>	The Social Impacts identified for Springsure, Emerald and the Central Highlands Region are comprehensive	Noted. No Action Required
16.10	Chapter 16 - Economic	Local Industry Participation- development and implementation of a Local Buy Strategy	Establishment of a Local Buy Program that is promoted and established during the early stages of the project to ensure that business meet the requirements of the company or have the opportunity to become supply chain ready within the timeframes of the development of the project. Incorporate liaison through Queensland Resources Council & recent experience of CHDC	Bandanna Energy has prepared a Draft Local Content Strategy in accordance with the Queensland Resources and Energy Sector Code of Practice for Local Content released by the Queensland Resources Council, 2013. As the development of the Strategy continues a number of agencies will be consulted, including the Central Highlands Development Corporation. This strategy will be implemented for this SCC project.
16.11	Chapter 19 - SIMP	Agricultural Action Plan: On-going support and collaborative action	No Comment	No Action Required

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
		planning with directly impacted landholders is positive		
16.12	Chapter 19 - SIMP	<p>Workforce Management Action Plan:</p> <ul style="list-style-type: none"> •Flexible work rosters to support diverse workforce to support volunteers will enable community clubs, groups and organisations to sustain community resilience and social cohesion programs. •Recruitment of traditionally under-represented groups such as indigenous and women in mining is positive 	There is an opportunity to promote healthy lifestyles for workers by engaging a locally based business to provide health and fitness programs	The engagement of local businesses to provide health and fitness services will be considered as part of workforce planning.
16.13	Chapter 19 - SIMP	<p>Housing and Accommodation Action Plan:</p> <p>Supportive of offering choice in accommodation types for workers such as local housing to encourage families and people to live permanently in the towns of Emerald and Springsure</p> <ul style="list-style-type: none"> • Pro-active monitoring of housing affordability in the local area is positive • Urge Bandanna Energy to be flexible and responsive to supporting their workforce to live locally including subsidised housing • Encouraging workers to participate in 'Welcome to Town' events is a positive way of promoting the charm of the local community and encourage local economic support 	No comment	No Action Required
16.14	Chapter 19 - SIMP	<p>Local Industry Participation Action Plan:</p> <ul style="list-style-type: none"> •Establishing a local supplier register of pre-qualified businesses is Management Plan positive •Having a 'Buy Local' policy is positive for local business •Development of and 	Liaising with Central Highlands Development Corporation and the Industry Capability Network to run workshops or one-on-one support for businesses to become pre-qualified would be advantageous	Bandanna Energy has developed a draft Local Content Strategy which will be used for the SCC project. A number of stakeholders, including the CHDC have been consulted as part of the development of the strategy. Once the strategy is further developed, the local business community will be engaged and the strategy communicated.

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
		communicating opportunities to expand the local supply chain would be positive		
16.15	Chapter 19 - SIMP	<p>Community Health and Safety Action Plan:</p> <ul style="list-style-type: none"> • Positive initiative to participate in the CHRC Community Wellbeing Indicators project with workforce data • Development and implementation of a traffic management plan with key stakeholders is important • Developing an Emergency Response Plan and providing support for the local Emergency Services is essential for the Springsure Creek workforce, local communities and wider public • Setting up a register and complaints management procedure for noise, dust and vibration monitoring and mitigation is essential and positive 	No Comment	No Action Required
16.16	Chapter 19 - SIMP	<p>Community Development Action Plan:</p> <ul style="list-style-type: none"> • Developing and implementing a local community development initiative to provide sponsorships, donations and partnerships is positive • Actively participating in the sustainable development of Emerald and Springsure communities is proactive and positive 	<ul style="list-style-type: none"> • Suggest having this community development initiative for Springsure and Emerald community • Suggest this community development initiative consider the opportunity to fund a Community Development Officer collaboratively with Council and Xstrata Coal. • Linking the organisational aspirations with the Emerald and Springsure CH2022 Community Place Plans is a positive and welcomed 	<p>Bandanna Energy has developed a donations, sponsorships and partnerships guideline which will apply to the SCC project. This provides for community groups and members to apply for support at two periods during each year. Applications can be made by members of both the Springsure and Emerald communities, as well as the wider region.</p> <p>SCC is actively participating in the Ensure Springsure Group in Springsure which aims to drive the sustainable development of Springsure, building upon Council's CH2022 Community Plan. Bandanna will continue to actively participate in the group providing support as appropriate.</p> <p>Initial discussions have been held with other mining companies in the area regarding their contributions and activities in the Springsure area. SCC will continue to liaise with other organisations in this regard to, where practicable and possible, coordinate activities and support.</p>

Springsure Creek Coal Mine Project

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s.73 irrelevant info

Submission number	Topic	Comment	Recommendation / Suggestion	Response
17.01	Chapter 9 - Groundwater	I have great concerns that the SCC mining could and will affect my ground water supplies, both quantity and quality. Ground waters supply our houses and buildings, as well as nearly all stock water for our property. We normally run over 300 head of cattle and we are concerned about how they would get water if the bores were to drop in capacity and quality, and especially if they went dry overnight. We believe measures should be in place before mining commences in case such events do arise. No-one in the mining company has approached us about our bores, as requested.	We believe our bores should be tested and monitored by sec before, during and after mining. This could be done by drilling several monitoring bores for this purpose. Possibly we could be given guaranteed access to the proposed water pipeline passing our property, or guaranteed supply by other means. Disruption to our ground water supply would have a serious impact on our business.	Subsequent to the EIS being prepared, additional groundwater monitoring has been undertaken, including some at your property "Wyntoon". The groundwater assessment completed for the project indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity. SCC will install long-term groundwater monitors at a number of locations around the site to monitor impacts on the groundwater system as a result of mining activities. Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply. Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater.
17.02	Chapter 8 - Surface Water	Overland Flow - I am concerned that the proposed road improvements will cause significant problems during rain and flood events. Elevated road improvements will inevitably cause water to back up and pond, potentially drowning grass and crops. When the water finally breaks through, the fast flowing water will cause serious erosion to land and crops downstream. One only needs to look at the severe damage to land and infrastructure where the Rolleston rail line crosses the Comet River. Not enough thought is put into the effect these changes will have on roads and properties, and the significant damage resulting could greatly impact our ability to continue operating our farming business.		Detailed flood modelling and hydraulic design will be undertaken for proposed local road upgrades. Minor and major flood events will be modelled and design of flow conveyance structures (culverts/bridges etc) will be undertaken to minimise upstream and downstream flooding of properties. Road upgrade designs will also be designed taking into account the flood model developed for the area as part of this project. CHRC, the Department of Transport and Main Roads, the local school bus committee and representatives of the local agricultural committee will be engaged during the design phase to ensure upgrades take into account the needs of all road users.
17.03	Chapter 10 - Air Quality	Dust s.73 irrelevant information Our winds are predominately from the east to the south. We are very concerned about dust that may blow over our property. We are also seriously concerned that coal dust will have an adverse effect on our health as we have members of our family who suffer from asthma. Any increase in the number of times and severity of asthma attack could be life threatening. We are also extremely concerned about coal dust contaminating our rain water supplies which are our source of drinking water and for chemical application. Loss of our rain water would have a big effect on our daily lives.	Dust monitoring should be a must for those who live down wind of the proposed mine.	SCC understands the impact that dust can have on agriculture, properties and water. Subsequent to the EIS being completed, additional baseline dust monitoring has been undertaken. Air quality modelling undertaken has concluded that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations. Long term air quality monitors will be installed at a number of locations around the site. These monitors will be 'real time' meaning data from the monitors will be communicated to the mine site as it is collected enabling an immediate response to any issues raised.
17.04	Chapter 11 - Noise and Vibration	Noise, vibration and visual amenities - Prevailing winds not only bring dust, but also noise. s.73 irrelevant information we will suffer more noise impact from the increased traffic on the road, as well as probably from mining operations to our south east. Vibration from blasting will be evident, as well as	Due to our close proximity we would want notification of any blasting activities as a common courtesy to surrounding land and homeowners.	A communications plan will be developed which will include protocols for notifying nearby landholders of any activities such as blasting. This plan will be developed in consultation with the landholders to ensure the methods of communication are suitable.

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
		increased lighting at night.		
17.05	Chapter 6 - Traffic and Transportation	Over dimensional vehicle management - Contract farming and share farming are a large part of our business. We frequently move oversized farm machinery along many roads in the vicinity of the mining area. With greatly increased traffic flows, shifting oversized machinery will be more difficult, and we are concerned about our ability to continue to do so in a timely and safe manner. The big problem will be the proposed road upgrades that will be needed. Road designs are commonly well above ground level with steep verges. These steep verges make it almost impossible to pull over or off the road with oversized machinery when there is oncoming or following traffic. It may be several kilometres before a suitable site can be found to safety pull over.	This problem could be greatly alleviated with gentle slopes on the road verges and bays to pull off regularly along the roads, say every one to two kilometres.	The local agricultural community is a key stakeholder in the design of local road upgrades. SCC will engage with representatives with the local community, along with CHRC, the Department of Transport and Main Roads and the local School Bus Committee in developing the design of upgrades. As mentioned at the Gindie Public Information Session localised widening features such as pull-off bays can be incorporated into the design to provide safe area for large vehicles to pass each other.
17.06	Chapter 12 - Ecology	We are concerned about the wellbeing and safety of native animals in this area. Currently on s.73 irrelevant information we have a thriving, breeding colony of koalas on land s.73 irrelevant information. We have commonly sighted koalas crossing s.73 irrelevant information and ourselves and local people recognise and watch out for them. With increased traffic on the road, we believe the koalas existence will be in jeopardy and it will only need a few deaths to decimate the population. We also often see echidnas crossing s.73 irrelevant information and we are concerned about their fate as well. There are also numerous other native animals that use Nine Mile Creek as a nature strip s.73 irrelevant information.	Statement only - no recommendation given	In addition to the mitigation measures to reduce the risk of fauna mortality outlined in Section 12.8.3, SCC will be developing policies and procedures for all staff using local roads. This will include awareness of the presence of local fauna and what to do in the event of an incident.
17.07	Chapter 16 - Economics	We are concerned that the viability of our farming business will be significantly altered and, quite likely, seriously jeopardized by the proposed sec mine. s.73 irrelevant information s.73 irrelevant information s.73 irrelevant information		SCC is committed to maintaining or increasing agricultural productivity on properties directly affected by the mine and as such is not proposing to cease farming activities or cause impacts that result in landholders not being able to farm. Any disruptions to active agricultural activity on areas impacted by mining would be limited to the actual area currently being subsided and the area immediately adjacent. On Cowley, based on the current mine plan, the first subsidence is not scheduled to occur until 2023.
17.08	Chapter 14 - Social Impacts	During the mining boom over the last ten or fifteen years, there has been undoubted growth and gains in housing and businesses in our local towns of Emerald and Springsure. However, such gains in these towns have actually had a negative impact on our business.		Noted.



Springsure Creek Coal Mine Project

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
		<p>All the businesses and services we require to operate our farming business s.73 irrelevant information ent information s.73 irrelevant information ent information all struggle against the high cost of housing and wages and lack of staff, as a result of the booming mining business. This has greatly affected services to our business. For example, it is very difficult to get tradesmen on a timely basis compared to what it was before the mining boom. We believe SCC will be just compounding these difficulties and will therefore have a negative effect on our business.</p> <p>s.73 irrelevant information ent information</p>		
17.09	Chapter 16 - Economics	<p>Impact on local property values - The EIS only refers to housing property values and ignores the impacts on local rural property values.</p> <p>Farm businesses, like all businesses rely on their equity to fund operation, development and expansion in their business. Farming businesses situated close to the SCC mine now find themselves in a difficult position as the properties are considered to be unsaleable, by both banks and the market. No-one wants to buy a property next to a proposed coal mine. Such property owners are therefore unable to realise their equity if needed. Farmers are concerned about extreme losses in equity because of the property being unsaleable in the event that the banks foreclose. I believe that properties in close proximity to the SCC mine will be devalued if the mine proceeds, which could seriously affect our ability to borrow necessary operating funds for our business in future.</p>		<p>The Economic Report included as Appendix A4-16 to the EIS states in Section 5.11.2.2:</p> <p><i>"The construction and operation of the Project is likely to negatively impact on the demand for rural land in the immediate vicinity of the Project",</i> according to consultation with rural agents in the Study Area. However despite this negative impact on demand, real estate agents in the Study Area reported minimal negative impact on actual sales values as a result of previous mining developments in the region. As a result, the impact of the Project on rural property values due to co-existing land uses is expected to be minimal and restricted to those landholders directly affected by mine site infrastructure."</p> <p>Compensation agreements will be negotiated with those landholders that are proposed to be directly affected by the project and any land valuation issues will be addressed as part of negotiating these agreements.</p>



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Department of Agriculture, Fisheries and Forestry

Submission number	Topic	Comment	Recommendation / Suggestion	Response
18.01	Executive Summary	Issues: 1. (sE3.2, p xii, table E-2, 1st item under Agricultural Project) Clarification of the Government's objective.	Comments: 1. Edit this item to read as: "Investment in agricultural businesses and research that will support the State Government's economic pillars and the 30 year agricultural target of doubling the value of agricultural production across Queensland".	EIS Executive Summary amended as suggested.
18.02	Executive Summary	2.1 (sE3.1 & E3.2, p xii-xiv) Clarification of how potential subsidence and other land use issues will "reduce impacts and create benefits for landholders".	2.1 The Project should commit in the EIS that there will be no net loss of the agricultural productivity and land condition of land potentially exposed to subsidence, both within and outside the MLA, during and post mining operations.	SCC and Bandanna energy is committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove co-existence while maintaining or improving agricultural productivity. With an independent Agricultural Co-existence Research Committee and with mining planned to take place on Den-Lo Park for the first 5 years, we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties.
18.03	Executive Summary	2.2 Clarification of terms "mitigate" and mitigation".	2.2 The Project should define the terms "mitigate" and "mitigation" to clarify meanings and values.	The purpose and objective of mitigation is described in the preceding section. It states that the purpose of "mitigation and management measures [is] to minimise the potential for impacts". No change to document.
18.04	Chapter 1 - Introduction	Issues: 1. (c1, p1-44 & c8, p 8-59) Waterway Barrier Works applications and approvals under the Sustainable Planning Act 2009 are not required within Mining Leases for projects authorised under the Mineral Resources Act 1989. However, any waterway barriers inside a MLA have the capacity to impact upon fish movement and waterway habitats with ramifications to the fisheries resources of the region. Note: The Project is reminded of the relevance of the Fisheries Act 1994 and DAFF as the relevant authority. Approvals required under the Fisheries Act 1994 for the Project will potentially include operational works approval for the construction or raising of waterway barrier works outside the MLA. (FQ)	Comments: 1.1 The Project should commit to consulting DAFF during the detailed design stage for waterway diversions, levee designs, culvert or bed level crossings, rock armouring, or all and any other works within a waterway as defined under the Fisheries Act 1994 for both permanent and temporary works.	Chapter 8 Surface Water has been updated to commit to consulting with DAFF during the design and implementation of any in-stream works outside the MLA should these be required. (Note, at present no waterway diversions are proposed as part of the Project. Any works in waterways will be carried out following the prior consultation with DAFF and seek to be consistent with the Fisheries Act 1994.)
18.05	Chapter 1 - Introduction	Issues: 1. (c1, p1-44 & c8, p 8-59) Waterway Barrier Works applications and approvals under the Sustainable Planning Act 2009 are not required within Mining Leases for projects authorised under the Mineral Resources Act 1989. However, any waterway barriers inside a MLA have the capacity to impact upon fish movement and waterway habitats with ramifications to the fisheries resources of the region. Note: The Project is reminded of	1.2 The Project should commit that within the MLA: • any waterway diversions, levee designs, culvert or bed level crossings, or rock armouring within the MLA shall be consistent with the requirements of the Fisheries Act 1994, adequately providing for fish passage, and equal or enhanced habitat values and habitat complexity; • all waterway diversions mimic the meandering of the low flow channel, the width and depth of the waterway and natural bed substrates to the greatest extent possible to	Please refer to response above.

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
		the relevance of the Fisheries Act 1994 and DAFF as the relevant authority. Approvals required under the Fisheries Act 1994 for the Project will potentially include operational works approval for the construction or raising of waterway barrier works outside the MLA. (FQ)	<p>promote fish passage and the replacement of lost habitat; and</p> <ul style="list-style-type: none"> the Project shall not directly or indirectly increase water velocities within waterways or waterway diversions to a level that would prevent fish movement through the Project site. 	
18.06	Chapter 1 - Introduction	<p>Issues:</p> <p>1. (c1, p1-44 & c8, p 8-59) Waterway Barrier Works applications and approvals under the Sustainable Planning Act 2009 are not required within Mining Leases for projects authorised under the Mineral Resources Act 1989. However, any waterway barriers inside a MLA have the capacity to impact upon fish movement and waterway habitats with ramifications to the fisheries resources of the region. Note: The Project is reminded of the relevance of the Fisheries Act 1994 and DAFF as the relevant authority. Approvals required under the Fisheries Act 1994 for the Project will potentially include operational works approval for the construction or raising of waterway barrier works outside the MLA. (FQ)</p>	<p>1.3 The Project shall obtain development approval for operational works for the building or raising of waterway barrier works under the Fisheries Act 1994, including waterway diversions, levee designs, culvert or bed level crossings, rock armouring, or all and any other works within a waterway as defined under the Fisheries Act 1994 for both permanent and temporary works which occur outside the MLA.</p>	Please refer to response above.
18.07	Chapter 1 - Introduction	<p>Issues:</p> <p>1. (c1, p1-44 & c8, p 8-59) Waterway Barrier Works applications and approvals under the Sustainable Planning Act 2009 are not required within Mining Leases for projects authorised under the Mineral Resources Act 1989. However, any waterway barriers inside a MLA have the capacity to impact upon fish movement and waterway habitats with ramifications to the fisheries resources of the region. Note: The Project is reminded of the relevance of the Fisheries Act 1994 and DAFF as the relevant authority. Approvals required under the Fisheries Act 1994 for the Project will potentially include operational works approval for the construction or raising of waterway barrier works outside the MLA. (FQ)</p>	<p>1.4 The Project shall not directly or indirectly increase water velocities within waterways or waterway diversions to a level that would prevent fish movement through a structure outside the MLA.</p>	The commitment that water velocities will not be increased to a level which would prevent fish movement through a structure outside the MLA has been added to Chapter 8 Surface Water and Chapter 12 Ecology.
18.08	Chapter 1 - Introduction	<p>2. (s1.5, p1-27 & s12.8.7, p 13-91) The EIS makes no reference to the possible application of the Plant Protection Act 1989. For example, the whole of QLD is a pest quarantine area for grape phylloxera and as the Project sites are located in a grape growing area, the Project transverses the Special Control Zone (which is designated as a phylloxera exclusion zone). For further information refer to - http://www.daff.qld.gov.au/4790_20983.htm#Grape (BQ)</p>	<p>2 While it is unlikely that plant and machinery has been in contact with grape vines, general biosecurity awareness of plant risks amongst the workforce can reduce the risk of introducing pests of concern into QLD. The EIS should describe the compliance strategy for the requirements of the Plant Protection Act 1989 (e.g. s73 of the subordinate legislation Plant Protection Regulation 2002). For specific movement conditions refer to Inspector's Approval 4.6 (http://www.daff.qld.gov.au/documents/Biosecurity_MovingPlantsAndPlantProducts/IA_4.6.pdf)</p>	The EIS has been amended to include relevant legislation listed



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Submission number	Topic	Comment	Recommendation / Suggestion	Response
18.09	Chapter 3 - Description of the Project	Issues: 1.1 (s3.8.3, p 3-6, s5.7.2, p5-57 & s14.6.4, p14-38) Potentially any rehabilitated site can have undesirable contaminants in the land or in the run-off from the land that ends up in animal drinking water. Under the Stock Act 1915, DAFF can quarantine land and 'things' that may cause a residue in stock. (BQ)	Comments: 1.1 The EIS should address the risk posed to the product integrity of animals grazing on contaminated land (where mining land is to be returned to livestock production) through the development of an appropriate risk management strategy.	All chemicals used as part of the mining operation or the agricultural operation will be controlled as part of hazardous materials management. All chemicals will be risk rated and subject to storage, use and disposal in accordance with the Material Safety Data Sheets (MSDS). Risk assessments and procedures will be put in place for all chemical use. The Environmental Authority will contain the following conditions: "The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the Standard for Risk Management (ISO31000:2009). All explosives, hazardous chemicals, corrosive substances, toxic substances, gases and dangerous goods should be stored and handled in accordance with the current Australian standard where such is applicable. Flammable and combustible liquids, including petroleum products, should be stored and handled in accordance with the latest edition of AS1940—The storage and handling of flammable and combustible liquids."
18.10	Chapter 3 - Description of the Project	1.2 (s3.8.3, p 3-6, s12.8.7, p 12-91 & s14.6.4, p14-38) Herbicides such as flupropanate used to control invasive grasses like tussock, Parramatta, Giant rats tail, Chilean needle and African lovegrass, have long withholding periods and obligations to move livestock to clean feed prior to slaughter. (BQ)	1.2 The Project should consult with adjacent and regional landholders on uses of herbicides to ensure that appropriate risk management actions can be implemented.	All chemicals used as part of the mining operation or the agricultural operation will be controlled as part of hazardous materials management. All chemicals will be risk rated and subject to storage, use and disposal in accordance with the MSDS. Risk assessments and procedures will be put in place for all chemical use.
18.11	Chapter 3 - Description of the Project	2 (s3.8.5.2, p 3-63) The scope and membership of the Agricultural Coexistence Research Committee. (RS)	2 The Project should provide in detail how the Agricultural Coexistence Research Committee will be appointed, its membership, function, reporting and disclosure requirements and accountabilities to ensure that the Project develops and implements "the most appropriate mitigation and rehabilitation strategies" to protect the value of SCL affected by the Project.	Springsure Creek Coal would be required to mitigate any impacts on agricultural practices and report the outcomes of mitigation by law as a requirement of its Environmental Authority to operate.
18.12	Chapter 5 - Land	Issues: 1. (s5.2.4, p 5-3) The potential for adverse production and economic impacts occurring on properties not owned by the Proponent that are directly affected by subsidence.	Comments: 1. How will the Project ensure that there will be no net loss to the production and economic return of the affected properties, particularly beyond the limits of the Den-Lo Park property?	Subsidence management plan and agricultural management plans will be considering yields and cropping practices. Longwall mining is predictable so that paddock rotation practices, can be tied into longwall mining plan. This will ensure that longwall mining can occur so that it results in minimal impacts and does not result in yield reductions.
18.13	Chapter 5 - Land		2. The Project should clarify if the irrigated areas of Den-Lo Park are C1 and C2 pasture lands as these areas are the most productive areas on the property.	Chapter 5 - Land, Section 5.4.3.3 has been updated following detailed soils and land suitability surveys undertaken at the Project site since release of the EIS for consultation. This has refined the areas within Den-Lo Park to present all land as Class A or Class B GQAL, except for a portion of Class C3 in the northwestern corner of the plot.

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
18.14	Chapter 5 - Land	3. (s5.4.5.5, p 5-38 & s5.7.4, p 5-58) The EIS commits to a Subsidence Management Framework and Subsidence Management Plan in consultation with the Agricultural Plan Steering Committee, landholders and the DEHP.	3. The EIS should provide detailed scope and purpose of both the Subsidence Management Framework and Subsidence Management Plan. This should include details on how the Project will make good any adverse impacts to the farming systems and agricultural productivity of agricultural lands both within and outside the MLA.	<p>SCC is committed to ensuring mining and agriculture can coexist. The agricultural steering coexistence committee has been formed to ensure this occurs and will develop research programmes specifically targeted to the region and to developing modes to ensure coexistence. Impacts associated with subsidence will be managed through a detailed subsidence management plan which will be developed and implemented prior to construction of the mine. The plan will detail modes to ensure water drainage and ponding is minimised throughout the project area.</p> <p>Short term impacts associated with subsidence will result in reduced yields. Bandanna energy will enter in landholder agreements prior to subsidence occurring these agreements will include compensation related to reduction in yields, etc.</p>
18.15	Chapter 5 - Land	4. (s5.7.5, p 5-59) Reducing potential land degradation and contamination provides no guarantees to neighbouring landholders.	4. The Project should commit to producing management plans and procedures prior to commencement of Project activities. These plans should be sufficiently binding and monitored to ensure that there is no degradation and/or contamination to existing agricultural land over the life of the Project.	This section of the EIS will be reworded such that context is made clear and not misinterpreted. SCC will develop and implement all management plans prior to construction of the mine. These plans are being developed to be in line with SCC commitment to ensure agriculture and mining can coexist.
18.16	Chapter 5 - Land	5. (s5.7.9, p 5-61 cross referenced against s4.2.1.6) The TOR states "Show the location of any cropping and grazing land in the vicinity of the site, and describe the existing agricultural land use including cropping, crop rotations, zero-till and controlled traffic farming practices as well as grazing. Provide an analysis of the loss of agricultural productivity resulting from the mine development. Describe how the mine will be designed to minimise the extent of disturbance to agricultural land resources including cropping land and grazing", and the EIS notes that this matter is discussed under s5.4.5.5 & Figure 5-10, however, these areas deal only with SCL. Matters such as existing land uses, productivity loss and minimisation of disturbance are not covered in this section and could not be found elsewhere in the EIS.	5. The EIS needs to address the full requirements of this TOR in particular the existing land uses, any productivity loss due to mine development and how the mine will be designed to minimise the extent of disturbance to existing agricultural activities.	Chapter 5 Land has been updated to include an Agricultural Impact Assessment based on understanding of existing farming practices ongoing in the Project Area. The inclusion of this assessment meets the requirements of the TOR and, furthermore, demonstrates that no significant impacts on agriculture are predicted.
18.17	Chapter 7 - Waste Management	(c7, Table 7-2, p 7-11) Concerns over the use of mulching vegetation for reuse on-site during rehabilitation.	Mulching of waste vegetation should not contain propagules (e.g. seeds, plant fragments etc) from declared weeds. This corresponds to Table 18-34. Note: For further details please refer to the Australian Standard 4454 (2012) Composts, soil conditioners and mulches.	A weed survey will be undertaken to identify and if found manage the site of any Weeds of National Significance (WoNS). The Pest and Weed Management Plan will also reflect this and will guide the management of mulching onsite. This will be further clarified in the Supplementary EIS.
18.18	Chapter 12 - Ecology	1. (c12) No information has been provided on whether commercial quantities of privately-owned (freehold land) forest products (i.e. log,		It is stated clearly within Section 12.8.1 and 12.9 that no remnant/regrowth vegetation is likely to be cleared as a result of the Project construction.

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		pole, fencing timbers, etc) will be interfered with (i.e. cleared, destroyed, etc) and if so how the Project will facilitate a timber salvage operation for the local timber industry before any work commences. (DF)		
		2.		
18.19	Chapter 12 - Ecology	2.1 (s12.8.7, p 12-91) This section does not provide any actions for the management of pest animals. (BQ)	2.1 The EIS should include a management strategy for pest animals. This should be cross-linked to the relevant section of the EMP in Chapter 18.	This will be detailed in the Pest and Weed Management Plan which will be developed within the overall Environmental Management Plan for the Project. Section 12.8.7 has been updated.
		2.2		
18.20	Chapter 12 - Ecology	2.3 Migratory and spur-throated locusts can damage cropping areas yet there is no mention of locusts in the EIS. How will this potential risk be managed in accordance with local and regional priorities? Note: both species are potential threats to the region. (BQ)	2.2 The EIS should describe how this potential risk will be managed in accordance with local and regional priorities. Any process should be developed in collaboration with state and local authorities to enable aerial control work. This should be cross-linked to the relevant section of the EMP in Chapter 18.	The framework for managing weeds and pest species will be inclusive of all potential risks to biodiversity, cropping and human health.
		2.4		
18.21	Chapter 12 - Ecology	2.3 The EIS omits the actions needed to be taken to prevent increased numbers of pest animals around buildings and infrastructure of the Project area that can attract and provide suitable harbour for cats, foxes and rabbits? (BQ)	2.3 The EIS should outline the actions to be taken to prevent pest animal species increasing in number as a result of the Project. Consideration should also be given to how materials, equipment, structures and waste (including putrescibles) associated with the construction and operations of the mine and related infrastructure will be managed to ensure pest species do not increase as a result of the Project.	The details of Pest Management will be developed and implemented before construction commences through consultation with DAFF.
18.22	Chapter 16 - Economic	1. (c16 & Appendix A4-15) Agriculture is talked about in general terms, however, the EIS does not examine the production and economic value generated from the total area to be mined. Thus no benchmark is established from which it is possible to determine whether mining will impact on agricultural production.	1. The Project should determine or provide for an estimate of the value of production that has been and continues to be generated annually from the Project area. This should be done for a period of years so that seasonal variations can be averaged out. In lieu of this, how will the Project benchmark or establish a baseline from which the commitment to permanently increase agricultural yields can be assessed?	The Agricultural Co-existence Research Committee is currently developing a methodology to benchmark and measure the value of land within the Project area. Once developed, data will be initially gathered on Den-Lo Park where mining is proposed to take place for the first 5 years. With the agreement of other landholders, data will also be gathered on other directly affected properties to develop a robust baseline for each property and paddock.
18.23	Chapter 16 - Economic	2. (s16.9.3, p 16-43) The EIS proposes the Springsure Creek Agricultural Plan as its solution to these matters but the EIS provides minimal information about the Plan and provides no guarantees that it can deliver on the statements made concerning agriculture made throughout the EIS.	2. The Project should ensure that the Springsure Creek Agricultural Plan commits to coexistence with exiting agriculture land uses. This should include aims to minimise disruptions and mitigate adverse impacts to agricultural activities, and to increase production yields on affected properties.	Bandanna Energy is committed to maintaining or increasing agricultural productivity on properties directly affected by the mine. Please refer to Section 19.5.2 in Chapter 19 regarding the Springsure Creek Agricultural Plan. This states: <i>The Springsure Creek Agricultural Project has been developed with the aim of maintaining and improving strategic cropping land which is impacted by the Springsure Creek Coal Mine Project. This will be achieved by implementing the Springsure Creek Agricultural Plan. The Springsure Creek Agricultural Plan sets out how the Springsure Creek Agricultural Project will be undertaken. Key features of the Springsure Creek Agricultural Plan are:</i> - Land Improvement Agreements;

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				<ul style="list-style-type: none"> - Land management; - Co-existence Research; and - Reporting and review. <p>The Springsure Creek Agricultural Plan will be an overarching document that will guide the development of land which is directly impacted by subsidence associated with the Springsure Creek Coal Mine Project.</p>
18.24	Chapter 18 - Draft EM Plan	<p>1. (s18.5.7.5, p 18-140) This section states that topsoil will be stockpiled to a maximum height of approximately 3 m, allowing oxygen to diffuse into the stockpile and maintain the viability of seed banks and microorganisms. Stockpiles of topsoil could favour rabbits.</p> <p>2.</p>	1. This section should describe the strategies to discourage rabbits from using soil stockpiles for harbour or breeding.	A detailed Pest and Weed Management Plan will be developed and implemented before construction commences. This will consider all pest species that may impact the region
18.25	Chapter 18 - Draft EM Plan	2. (s18.5.9.1, p18-159) Reference to the EPBC protected matters search tool.	2. It is recommended that the Project also use the DAFF-Annual Pest Distribution Survey. The APDS can support pest management planning by providing spatial data on the distribution and density of weeds in the region.	Reference to the APDS has been included in EM Plan
18.26	Chapter 18 - Draft EM Plan	3.1 (s18.5.9.5, p18-180) This section does not appear to include a commitment or strategies to manage feral animals.	3.1 The EMP should detail the Project's commitment to ensuring pest animals do not increase as a result of the Project and new pest animals are not introduced. More information is required, for example, how will operations and infrastructure be managed around the Project site to prevent an increase in pest animals. Will monitoring be undertaken?	Correct: Monitoring of pest animals within the Project area will be included as part of the EMP.
18.27	Chapter 18 - Draft EM Plan	3.2 The EMP should include training of staff and contractors in identifying priority weeds in the local government area (but not present on the Project site). For example, the Weeds of National Significance, athel pine, bellyache bush, hymenachne, lantana, parkinsonia, parthenium, prickly acacia, and rubber vine have been identified in the Central Highlands Regional Council area.	3.2 The EMP should include training of staff and contractors in identifying priority weeds. In addition to those already present on the Project site, training in weed identification should also include weeds identified as priorities in the Central Highlands Regional Council Area.	The EMP has been amended to provide for the training of staff and contractors to identify priority weeds, including those identified as priorities in CHRC area.
18.29	Chapter 18 - Draft EM Plan	3.3 The EMP lacks detail about how priority weed and pest animal species will be managed. It is not clear how the weed and pest animal management plan aligns with local and regional weed and pest animal priorities or the contacts and arrangements needed to ensure alignment.	3.3 This section should provide more detail on the strategies for the prevention and management of priority pest species. The EMP also needs to describe how the weed and pest animal management program will align with local and regional weed and pest animal priorities including the actions taken and contacts made.	EMP has been amended to provide for the management of weeds and pest species in line with local and regional priorities.
18.30	Chapter 18 - Draft EM Plan	3.4 Pest animals and their management have not been considered in this section.	3.4 The EMP should provide information about actions to be implemented to management pest animals. This should also include actions to prevent the introduction of pest species not present (e.g. fire ants).	The details of Pest Management will be developed and implemented before construction commences through consultation with DAFF.

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18.31	Chapter 19 - SIMP	s19.2.5, p 19-11) Whilst the EIS acknowledges landholder concerns over potential adverse impacts from the underground mine and haulage road are likely to cause to their businesses and lifestyles, however, the Springsure Creek Agricultural Plan appears to be solely focused on agricultural production matters. It is not clear how Project intends to consult with landholders who are directly impacted by these issues.	The EIS needs to detail landholder engagement strategies for how these issues will be addressed and actioned with concerned landholders.	<p>Further information regarding stakeholder engagement is included in Section 19.5.1 of the SIMP.</p> <p>Discussions are ongoing with directly affected and nearby landholders who are being engaged in the manner which they have requested. Specific details about each engagement remain confidential, however all engagement is being undertaken in accordance with the strategy outlined in Section 19.5.1.</p> <p>A consultation report has been prepared and submitted to EHP, however this report remains confidential in order to protect the privacy of individuals.</p>

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19.01	Chapter 17 - Hazard and Risk	DCS - State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide The EIS provides sufficient detail on identification of flooding and bushfire hazards, subject to the SPP 1/03, both within the MLA area and rail load out facility, associated risks and mitigation measures. Landslide hazard is not an issue for this location.	It is recommended that Volume 1 – Chapter 8 - Surface Water, s 8.2 Relevant Legislation, guidelines and Plans, s8.2.6 State Planning Policies be amended to provide a statement about the Project compliance with the outcomes sought by the SPP 1/03.	Section 8.2 - Relevant Legislation, Guidelines and Plans of Chapter 8 - Surface Water has been updated to include a statement on project compliance and the outcomes sought by SPP 1/03. <i>"State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide aims to ensure that the natural hazards of flood, bushfire, and landslide are adequately considered when making decisions about development. Aspects of this policy relating to the Project are assessed and detailed in Chapter 17 - Hazard and Risk."</i>
19.02	Chapter 8 - Surface Water	DCS - State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide. The EIS provides sufficient detail on identification of flooding and bushfire hazards, subject to the SPP 1/03, both within the MLA area and rail load out facility, associated risks and mitigation measures. Landslide hazard is not an issue for this location.	It is recommended that Volume 1 – Chapter 8 - Surface Water, s 8.2 Relevant Legislation, guidelines and Plans, s8.2.6 State Planning Policies be amended to provide a statement about the Project compliance with the outcomes sought by the SPP 1/03.	Section 8.2 - Relevant Legislation, Guidelines and Plans of Chapter 8 - Surface Water has been updated to include a statement on project compliance and the outcomes sought by SPP 1/03. <i>"State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide aims to ensure that the natural hazards of flood, bushfire, and landslide are adequately considered when making decisions about development. Aspects of this policy relating to the Project are assessed and detailed in Chapter 17 - Hazard and Risk."</i> All flood modelling and any required mitigation will be compliant with the outcomes of the SPP1/03.
19.03	Chapter 17 - Hazard and Risk	DCS - State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide The EIS provides sufficient detail on identification of flooding and bushfire hazards, subject to the SPP 1/03, both within the MLA area and rail load out facility, associated risks and mitigation measures. Landslide hazard is not an issue for this location.	It is recommended the EIS also provides detail on specific emergency response elements and procedures to be included in the emergency response plan/SHMS in relation to flood and bushfire hazards as part of the Draft Environmental Management Plan (EM Plan). In particular, the proposed access road access for emergency vehicles and alternative escape routes from the Project site need to be confirmed for flood and bushfire events. In addition, it is recommended that the proposed emergency response plan and emergency complex be developed in liaison with Queensland Fire and Rescue Service (QFRS).	An Emergency Response Plan will be developed prior to construction to include details of: <i>"Specific emergency response elements and procedures will be detailed in the emergency response plan and EM plan. These will be developed in liaison with the Queensland Fire and Rescue Service (QFRS) and will include among other things details of: - the proposed access road access for emergency vehicles; and - alternative escape routes from the Project site in the event of emergency situations such as flood and bushfire events;"</i>
19.04	Chapter 18 - Draft EM Plan	DCS - State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide The EIS provides sufficient detail on identification of flooding and bushfire hazards, subject to the SPP 1/03, both within the MLA area and rail load out facility, associated risks and mitigation measures. Landslide hazard is not an issue for this location.	It is recommended the EIS also provides detail on specific emergency response elements and procedures to be included in the emergency response plan/SHMS in relation to flood and bushfire hazards as part of the Draft Environmental Management Plan (EM Plan). In particular, the proposed access road access for emergency vehicles and alternative escape routes from the Project site need to be confirmed for flood and bushfire events. In addition, it is recommended that the proposed emergency response plan and emergency complex be developed in liaison with Queensland Fire and Rescue Service (QFRS).	As noted above, an Emergency Response Plan will be developed prior to construction with QFRS a key stakeholder in the development of this plan. Specific management plans are developed at different stages of the project. Please refer to the diagram in Chapter 1 - Introduction which identified the stages of project development that plans are prepared.

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19.05	Chapter 17 - Hazard and Risk	DCS - The EIS provides detailed information on the identification of flood hazards for the MIA and rail load out facility. As required by the SPP1/03 requirements, the EIS provides mapping that indicates land that is affected by flood hazard as part of the flood assessment reporting.	No comment	Noted
19.06	Chapter 18 - Draft EM Plan	DCS - the flood immunity level proposed for the infrastructure proposed as part of the MIA and rail load out facility is identified as being built above 1:1,000 year flood events. Given this flood immunity the EIS does not identify any mitigation measures to address flood hazard apart from the design objectives of locating infrastructure on higher ground or installing a flood mitigation device such as levee banks. The design objectives are considered to be consistent with the outcomes sought by the SPP 1/03.	<ul style="list-style-type: none"> Volume 2 – Draft EM Plan, Section 18.5.4.5 – Surface Water Quality, Flood Hydrology, Hydraulics and Mapping (p18-77) details the modelled flood impact for the Project. There is no reference to the Project’s ability to achieve the requirements of the SPP 1/03 or the level of flood immunity to be attained for the MIA or rail load out facility. It is recommended that this section should refer to the requirements of the SPP 1/03 that relate to minimising and mitigation of flood hazards for the project as well as documenting the level of flood immunity to be achieved and establish that safety of the site occupants and workers will be maintained as detailed in Annex 4 of the SPP1/03. 	All flood modelling and any required mitigation will be compliant with the outcomes of the SPP1/03.
19.07	Chapter 18 - Draft EM Plan	DCS - The EIS does not provide information about the Project’s impact on flood behaviour of surrounding areas. It is the intention of the SPP 1/03 that a development should not increase flood hazards for properties upstream, downstream and adjacent of the development. From the flood assessment contained in the EIS, it is not possible to determine if this has been achieved particularly in relation to the installation of possible levee banks.	<ul style="list-style-type: none"> Volume 2 – Draft EM Plan, Section 18.5.4.5 – Surface Water Quality, Flood Hydrology, Hydraulics and Mapping (p18-77) details the modelled flood impact for the Project. There is no reference to the Project’s ability to achieve the requirements of the SPP 1/03 or the level of flood immunity to be attained for the MIA or rail load out facility. It is recommended that this section should refer to the requirements of the SPP 1/03 that relate to minimising and mitigation of flood hazards for the project as well as documenting the level of flood immunity to be achieved and establish that safety of the site occupants and workers will be maintained as detailed in Annex 4 of the SPP1/03. 	All flood modelling and any required mitigation will be compliant with the outcomes of the SPP1/03.
19.08	Chapter 18 - Draft EM Plan	DCS - The EIS does not contain information on specific emergency response measures and procedures or detail the projects compliance with the SPP 1/03 requirements. In particular the EIS does not identify that essential services infrastructure to be provided on site maintains its function during a DFE.	<ul style="list-style-type: none"> It is also recommended that the EM Plan provide a section that addresses specific emergency response elements and procedures during flood events for the Project that would need to be reviewed by QFRS. 	As noted above, an Emergency Response Plan will be developed prior to construction with QFRS a key stakeholder in the development of this plan.
19.09	Chapter 17 - Hazard and Risk	DCS - Consistent with the requirements of the SPP 1/03, the EIS provides relevant mapping to identify areas of Low to Medium Bushfire Severity within	No comment	Noted

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		<p>the Project area. The EIS states that bushfire hazard is reduced as a result of the limited on the ground vegetation and distance from the Project area.</p> <p>The EIS identifies a number of hazardous project activities that may result in a fire and provides relevant mitigation measures.</p> <p>Actions required to ensure the interests of the SPP 1/03 (bushfire) are clearly reflected in the EIS:</p>		
19.10	Chapter 17 - Hazard and Risk	DCS - Actions required to ensure the interests of the SPP 1/03 (bushfire) are clearly reflected in the EIS:	<ul style="list-style-type: none"> It is noted that proposed mitigation strategies for bushfire hazard include the provisions of fire breaks around lease boundaries and adequate water supplies and training for fire-fighting. It is recommended that statements regarding provision of adequate road access for fire-fighting/other emergency vehicles and safe evacuation also be included in the EIS as well as in the emergency response plan. Suggested section of the EIS: Volume 1 – Chapter 17 – Hazard and Risk, s17.5 Identification of Project Hazards, s17.5.1 Natural Hazards, s.17.5.1.1 – Bushfires. 	The Emergency Response Plan will include details of provisions for site access roads for fire fighting and emergency vehicles, as well as the safe evacuation of staff in the event of an emergency.
19.11	Chapter 18 - Draft EM Plan	DCS - Actions required to ensure the interests of the SPP 1/03 (bushfire) are clearly reflected in the EIS:	<ul style="list-style-type: none"> Given that the Project area is to have external water supply, it is recommended that the water management system should specify measures to ensure sufficient water supply is available on site for fire-fighting purposes. Suggested section of the EIS: Appendix A4-05 Flood Assessment and Water Management Report – s8.3 Proposed Water Management System and Volume 2 – Draft EM Plan, s 18.3 Infrastructure Requirements, s18.3.4 Proposed Water Management Strategy. 	Fire water demand has been accounted for within the water balance model. The volumes of water for fire fighting are listed in Table 8.1 of Appendix A4-05.
19.12	Chapter 18 - Draft EM Plan	DCS - Actions required to ensure the interests of the SPP 1/03 (bushfire) are clearly reflected in the EIS:	<ul style="list-style-type: none"> It is also recommended that the EM Plan provide a section that addresses specific emergency response elements and procedures during flood events for the Project that would need to be reviewed by QFRS. 	As noted above, specific emergency response elements and procedures will be detailed in the emergency response plan and EM plan.
19.13	Chapter 17 - Hazard and Risk	QFRS - State Community Safety Operations Branch The Queensland Fire and Rescue Service (QFRS) maintains several prescribed functions under the Fire and Rescue Service Act 1990, one of which is to provide an advisory service and undertake other measures to promote fire prevention, fire control and safety and other procedures if a fire or hazardous materials emergency occurs. As an advice agency we also have jurisdiction to provide	<p>We note the proponent will comply where necessary with relevant Queensland statutory legislation and will implement safety and health management systems so as to mitigate hazard and risk (Chapter 17 - Hazard and Risk). We also note the following:</p> <ul style="list-style-type: none"> Implementation of emergency response plans detailing mitigation strategies to achieve specific outcomes as outlined in the State Planning Policy (SPP) 1/03 – Guideline for Mitigating the Adverse Impacts of Flood, 	Noted

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		input into the design of a building or structures fire safety systems. This advice must be in accordance with the Sustainable Planning Regulation 2009 – schedule 7, table 1, for building work assessable against the Building Act 1975. The QFRS is aware of the regulatory requirements outlined for approvals in section 1.5 Project approvals. We understand the objective of this document and we acknowledge our role in the consultation process. We remain aware that we may provide the proponent with advice relevant to our jurisdiction and function.	Bushfire and Landslide; Also ensure adequate separation of vegetation from exposures to prevent wild fire events threatening infrastructure in isolated areas.	
19.14	Chapter 17 - Hazard and Risk		<ul style="list-style-type: none"> Hazard analysis and risk assessment undertaken in accordance with AS/NZS ISO 31000:2009 Risk Management – Principles and guidelines and HB203:2006 Environmental Risk Management Principles and Processes; 	Noted, this is outlined in Chapter 17.
19.15	Chapter 17 - Hazard and Risk		<ul style="list-style-type: none"> All dangerous goods, explosives and hazardous substances transported, stored and handled in accordance with relevant legislation; 	Noted, this is outlined in Chapter 17.
19.16	Chapter 17 - Hazard and Risk		<ul style="list-style-type: none"> Development of safety management plans and emergency response procedures in consultation with state and regional emergency service providers and provide an adequate level of training to staff who will be tasked with emergency management activities; 	The Emergency Response Plan will be created in consultation with state and regional emergency service providers and include requirements regarding training for relevant staff.
19.17	Chapter 17 - Hazard and Risk		<ul style="list-style-type: none"> Compliance where necessary with the Fire and Rescue Service Act 1990. 	The Emergency Management Plan will comply with the Fire and Rescue Service Act 1990.
19.18	Chapter 6 - Traffic and Transport	QFRS (Central Region) - The increase of both light and heavy road traffic will have the potential to increase road crash incidents. QFRS has auxiliary-manned Stations at Springsure and Emerald that would be the primary response agency to such an incident. QFRS at present has sufficient resources to attend road crash incidents on public roads within the response area of these two brigades.	That Springsure Creek Mine will develop and implement a detailed Traffic Management Plan for construction, operation and decommissioning periods of this project.	<p>SCC has developed a Draft Road Use Management Plan (RUMP). The purpose of the RUMP is to identify appropriate protection objectives and associated implementation strategies together with monitoring, auditing, reporting and corrective actions to be adopted if an undesirable impact or unforeseen level of impact occurs.</p> <p>The RUMP will be finalised in consultation with a number of key stakeholders, including QFRS, QPS, QAS and others. It will also be reviewed and periodically updated, if necessary, to reflect knowledge gained during the detailed design process, construction and the course of operations.</p>
19.19	Chapter 6 - Traffic and Transport	QFRS acknowledges that the transportation of the coal is on a private haul road. This corridor intersects with the Comet River Road which is under the control of Central Highland Regional	The EIS Traffic Management Plan should address this issue and identify management and mitigation procedures to deal with these incidents in the first instance before QFRS arrival.	As noted above, this will be addressed in the RUMP.

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		Council. Any road crash incidents on Springsure Creek Mine lease/land will impact on the response capabilities and resources of QFRS.		
19.20	Chapter 14 - Social Impacts	QFRS (Central Region) acknowledges that there will be a fully catered motel-style village created for this project that will be situated off site. The village will need to comply with all Acts and Regulations pertaining to such villages and the maintenance required under these Acts, Regulations and Queensland Development Code.	As a referral agency, the QFRS is required to be involved in the approval process under the Sustainable Planning Act 2009 and Sustainable Planning Regulations 2009, Schedule 7. Information should be provided to QFRS on this village.	The proposed Workers Accommodation Village has recently received approval for a Material Change of Use from the Central Highlands Regional Council. It is assumed QFRS was a referral agency regarding this approval process.
19.21	Chapter 17 - Hazard and Risk	QFRS (Central Region) - The EIS does not identify resources that will be available on site to combat any major incident (structural fire or substantial emergency incidents). The combating of a major incident would require substantial infrastructure as fire extinguishers and hose reels are limited to minor incidents.	<p>An Emergency Management Plan will be developed for the lifespan of the project (construction, operation to disassembly). This plan should include a consistent and structured response to each type of emergency incident including natural disasters.</p> <p>It is recommended QFRS be involved in the formulation of such a plan along with other relevant stakeholders.</p> <p>QFRS recommends that site maps showing water supply and access be formulated, this format should be easily read by all emergency response agencies and kept onsite with ready access to them by these agencies. Maps should be revised annually at a minimum.</p>	<p>SCC will develop an Emergency Response Plan for the life of the project (construction, operation and decommissioning). This plan will provide a consistent and structured response to each emergency type and identify resources that are available onsite to combat any major incident (structural fire and/or substantial emergency accidents. QFRS will be consulted in the development of this plan.</p> <p>The plan will also include maps showing water supplies and access and will be periodically reviewed and updated to ensure currency.</p>
19.22	Chapter 6 - Traffic and Transport	QAS - Traffic and Transport	Advise any diversions, restrictions, limitations on road infrastructure that may impact on the delivery of ambulance operations from ambulance stations through road network locations within the project area; this should outline alternatives to road transport for the delivery of equipment.	<p>All local roads providing access to the project area will facilitate alternative access to the site in the event main access routes are impacted by an incident. It is expected that accesses to the site other than the main access will be closed and remain secure and be for the use of maintenance and emergency vehicles and not for day to day operation. The MLA area boundary adjacent to public roads will be fenced to restrict access to the general public. SCC will work with emergency local emergency services in the development of the Emergency Response Plan, including how access is to be gained to site.</p> <p>It is anticipated that a working party will be established to review and sign off on the RUMP which will enable the proponent and its contractors to formally adopt and implement the RMP in relation to any site vehicular transport requirements. The working party would likely consist of members from DTMR Fitzroy Region, Council, local emergency services (Police, Fire and Ambulance authorities), HVROPO including a representative from the local school bus committee. The RUMP will be made available to the public with key contact details provided. It is envisaged that this RMP will be updated annually included a review by all members of the working party.</p> <p>A helipad for emergency evacuation will be included within the MIA.</p>

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19.23	Chapter 14 - Social Impacts	QAS - Social Impacts	Provide meeting advice to the Queensland Ambulance Service (QAS) once a consultative working group commences.	QAS will be invited to participate in any consultative working group developed within the community. QAS will also be invited to participate in the development of workforce management plans, specifically relating to workforce health and wellbeing; as well as emergency response procedures.
19.24	Chapter 14 - Social Impacts	QAS - Social Impacts	Identify the impact on the surrounding community health and services infrastructure, should the project result in a significant increase in population	Discussions have been held with a number of health service agencies including CQ Health and Hospital Services. Further discussions are planned in the coming months with representatives from local as well and regional health services.
19.25	Chapter 14 - Social Impacts	QAS - Social Impacts	Identify management strategies to address the consequences of limited accommodation availability and affordability, the impact for local residents including emergency service personnel in securing suitable accommodation at a reasonable cost.	<p>Springsure Creek Coal will keep QAS informed regarding workforce to allow QAS to undertake resource planning to provide an appropriate level of service in accordance with current standards. Workforce skills will include first responders trained to a standard they are able to provide assistance off-site in the event that QAS require additional resources at nearby incidents.</p> <p>QAS will be involved in the development of Emergency Response Plans for the Project and be aware of all emergency procedures on site.</p> <p>It should be noted that Springsure Creek Coal will not undertake any of the functions of State Government, including provision of additional resources to government agencies.</p>
19.26	Chapter 14 - Social Impacts	QAS - Social Impacts	Identify viable housing initiatives and commitments that the project can assist the local community, low income earners and critical workers with residential housing availability and affordability factors, should the project result in a significant increase in the construction workforce.	<p>As the project continues to progress, ongoing engagement with stakeholders will continue and actions and performance measures, or key performance indicators, will become more specific. At this stage of SIMP key performance indicators are generally broad and will be discussed further with stakeholders.</p> <p>The current action to <i>"work collaboratively with state and local government and other agencies to collect data and continue to monitor the cumulative impacts of activity on the accommodation market and work collaboratively to develop appropriate responses"</i> remains appropriate at this time. It is understood CHRC is looking at establishing, with others, an affordable housing trust. Should this come to fruition, Springsure Creek Coal will consider how best to participate in that initiative.</p> <p>The Draft SIMP included in Chapter 19 of the EIS has been updated to reflect project progress. Some of the actions and key performance measures have been updated as a result of ongoing engagement with stakeholders.</p>
19.27	Chapter 15 - Health and Safety	QAS - Health and Safety	<p>Consult with QAS in relation to provision of a paramedic service on the site. This paramedic will work closely with your health team to ensure loss time is reduced where possible. QAS provides paramedical services including but not limited to:</p> <ul style="list-style-type: none"> • emergency patient care; • health and welfare checks; • certification in first-aid and low voltage rescue; 	<p>Noted, the proponent will consult with QAS in relation to the provision of a paramedic service on the site. The EIS will be updated to include the following information:</p> <p><i>"Provisions will be made for Queensland Ambulance Service (QAS) paramedic to service the site. This paramedic will work with the health team to ensure time loss is reduced where possible and provide paramedical services including but not limited to:</i></p> <ul style="list-style-type: none"> • <i>emergency patient care;</i> • <i>health and welfare checks;</i>

Springsure Creek Coal Mine Project

Response to Submission to EIS



Submission number	Topic	Comment	Recommendation / Suggestion	Response
			<ul style="list-style-type: none"> • drug and alcohol testing; and • supply of a mine site approved vehicle. 	<ul style="list-style-type: none"> • <i>certification in first-aid and low voltage rescue; and</i> • <i>drug and alcohol testing.</i>"
19.28	Chapter 15 - Health and Safety	QAS - Health and Safety	Identify possible landing site for both the rescue helicopter service and fixed wing aircraft services if required. This should include landing zone, flight paths, lighting and wind sock.	A helipad for emergency use will be included in the MIA. This will be designed and constructed to comply with all relevant regulations. No provision is being made for fixed wing aircraft services.
19.29	Chapter 15 - Health and Safety	QAS - Health and Safety	With a fly in/fly out, drive in/drive out, bus in/bus out workforce can you outline your fatigue management policy both in relation to on roster shifts and pre/post shift.	Fatigue management policies with regard to both pre and post shift will be outlined in the Workforce Management Plan and detailed in the Safety and Health Management System. This plan will be developed prior to construction of the mine. Fatigue management will also be incorporated as part of the RUMP and Traffic Management Plan developed by SCC.
19.30	Chapter 15 - Health and Safety	QAS - Health and Safety	Will the accommodation camp be a wet or dry camp?	The SCC accommodation village will be a wet village. The consumption of alcohol will be managed however and strict testing regimes will be in place to ensure staff are not intoxicated or under the influence of alcohol during work hours.
19.31	Chapter 16 - Economic	QAS - Economic	The QAS may be required to fund and expand radio networks in the area. The QAS would request support to piggy back communication technology on planned towers or investigate assisting QAS to install appropriate technology in the area.	Noted. QAS will be advised of the proposed communication system at the appropriate time. If there are opportunities for the QAS communications network to be expanded as part of SCC's network these can then be explored further.
19.32	Chapter 17 - Hazard and Risk	QAS - Hazard and Risk	o Consult with the Queensland Chemical Hazards & Emergency Management and the Medical Director, QAS in relation to treatment plans for injured workers due to chemical processes used on site.	Agreed. SCC will consult with the Queensland Chemical Hazards & Emergency Management and the Medical Director, QAS in relation to treatment plans for injured workers due to chemical processes used on site.
19.33	Chapter 17 - Hazard and Risk	QAS - Hazard and Risk	o Formulate and provide a copy of the Major Emergency Incident Plan, which should include contact details for key stakeholders in case of an emergency.	Agreed. Prior to construction SCC will formulate an Emergency Response Plan that will detail among other things Major Emergency Response Plans and contact details for key stakeholders in the case of an emergency.
19.34	Chapter 17 - Hazard and Risk	QAS - Hazard and Risk	o The QAS to be provided a copy of the Hazards and Risk assessment	Agreed. QAS will be provided a copy of the hazard and risk assessment, prior to construction and operation. This assessment will also form part of the Emergency Response Plan.
19.35	Chapter 17 - Hazard and Risk	QAS - Hazard and Risk	o Notification of planned exercises, either practical or tabletop, for attendance and participation by the QAS.	Agreed. QAS will be notified of any planned exercises either practical and/or tabletop to be attended/participated in.
19.36	Chapter 17 - Hazard and Risk	QAS - Hazard and Risk	o Provide QAS with information relating to the Disaster Management Systems that will be used in the event of a disaster.	Agreed. QAS will be provided with information relating to the Disaster Management Systems that will be used in the event of a disaster prior to construction and operation. These will also form part of the Emergency Response Plan.



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Submission number	Topic	Comment	Recommendation / Suggestion	Response
19.37	Chapter 17 - Hazard and Risk	QAS - Hazard and Risk	o Provide QAS with the access and evacuation maps for accommodation camps or villages	Agreed. QAS will be provided with evacuation maps for camps/villages prior to construction and operation and these will form part of the Emergency Response Plan. Not an emergency services 'familiarisation' exercise will be held for both the workers accommodation village and the mine site prior to operational activities commencing.

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Housing Services, Department of Housing and Public Works

Submission number	Topic	Comment	Recommendation / Suggestion	Response
20.1	Chapter 14 - Social Impacts	<p>Accommodation in local communities. The EIS states that more than 140 employees/contractors are expected to reside locally once the Project reaches full production; and that this is expected to create additional demand for housing of similar magnitude.</p> <p>The EIS also states that ‘given the number of houses potentially required in Emerald, the proponent does not anticipate the cost of housing (including rental prices) to rise significantly. The 19 houses potentially required in Emerald in 2016 compares to 509 houses/apartments sold in Emerald in 2011 (less than 4% of sales for the year).’ Vacancy rate data for Emerald indicates a constricted rental market (1.20%) . Vacancy rates of around 3% are considered by the National Housing Supply Council as the industry norm and represent a good balance between demand and supply.</p>	<p>The department recommends that the draft Social Impact Management Plan include details on how local accommodation would be sourced in Emerald and Springsure given the tight rental market. This should include outlining any strategies to support employees that are seeking to relocate to the area.</p>	<p>Subsequent to the baseline data regarding housing being presented in the Social Impact Assessment (Appendix A4-15 and Chapter 14 of the EIS), the housing market in the Central Highlands has experienced significant change corresponding to a decline in activity in the resources sector. In May 2012 there were approximately 200 properties for sale in Emerald and since mid-June 2012 this figure has gradually increased to remain steady at around 500 since December 2012. Over the same period, the number of people looking at each property (on average) has declined from over 10 per property to between 2 and 3 since October 2012. Property prices have however tended to remain fairly constant (Source – realestate.com.au). This change in the housing market is acknowledged in Section 19.5.4 (Chapter 19 of the EIS) which notes that the changes since mid-2012 are likely to lessen any impacts on housing in the local area.</p> <p>At present and based upon current trends, no additional housing is required in Emerald and Springsure. The proposed action included in Section 19.6.3 of the EIS to “Continue to monitor the housing and rental markets in Springsure and Emerald along with the wider Central Highlands Region and determine appropriate responses in consultation with key stakeholders” remains the most appropriate response at this time.</p> <p>As workforce management planning progresses strategies to support employees wanting to relocate to the area will be developed. These might be developed in consultation with employees at the appropriate time to ensure strategies are relevant.</p>
20.2	Chapter 19 - SIMP	<p>Accommodation in local communities. The EIS states that more than 140 employees/contractors are expected to reside locally once the Project reaches full production; and that this is expected to create additional demand for housing of similar magnitude.</p> <p>The EIS also states that ‘given the number of houses potentially required in Emerald, the proponent does not anticipate the cost of housing (including rental prices) to rise significantly. The 19 houses potentially required in Emerald in 2016 compares to 509 houses/apartments sold in Emerald in 2011 (less than 4% of sales for the year).’ Vacancy rate data for Emerald indicates a constricted rental market (1.20%) . Vacancy rates of around 3% are considered by the National Housing Supply Council as the industry norm and represent a good balance between demand and supply.</p>	<p>The department recommends that the draft Social Impact Management Plan include details on how local accommodation would be sourced in Emerald and Springsure given the tight rental market. This should include outlining any strategies to support employees that are seeking to relocate to the area.</p>	<p>Section 14.4.3 of the EIS states “Using the above workforce data and population assumptions, an additional 139 houses are expected to be required in the Central Highlands over the Project life, as a result of the Project.” It should be noted that this assessment of 139 houses is expected to be required over the Project’s 40 year life, and not within a more defined timeframe.</p> <p>As noted above, subsequent to the baseline data regarding housing being presented in the Social Impact Assessment (Appendix A4-15 and Chapter 14 of the EIS), the housing market in the Central Highlands has experienced significant change. This change in the housing market is acknowledged in Section 19.5.4 (Chapter 19 of the EIS) which notes that the changes since mid-2012 are likely to lessen any impacts on housing in the local area.</p> <p>While the submission does not propose a timeframe for houses to be constructed, the recommendation “that 139 houses be constructed by the proponent to mitigate operational worker housing impacts at Emerald and Springsure” could have adverse impacts on the local housing market if the construction of any new homes was not planned and undertaken in response to trends within the housing sector.</p> <p>There are a number of actions in the SIMP regarding housing and accommodation targeted towards monitoring the housing market and developing appropriate responses at such time that the Project is anticipated to have an impact on the local housing market, as well as actions related to encouraging workers to reside locally. Please refer to Sections 19.6.2 and 19.6.3 of the SIMP, included as Chapter 19 of the EIS, for further details.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
20.3	Chapter 14 - Social Impacts	<p>The Housing Analysis data (Chapter 14 Social Impacts – 14.3.4) also shows that the rental market in Central Highlands is characterised by rapidly rising median rents and declining proportions of affordable rental stock.</p> <p>Given this context, the potential for the project to contribute to the cumulative impact on housing affordability issues in local communities should be addressed.</p>	<p>The department also recommends that the draft Social Impact Management Plan include strategies for contributing to managing impacts on local housing affordability. For example, by working with other stakeholders and potential partners in the housing market – such as local councils, not-for-profit housing providers and other companies attempting to address cumulative housing impacts. The Department of State Development, Infrastructure and Planning and Department of Housing and Public Works should also be included in discussions on these issues.</p>	<p>As noted above, subsequent to the baseline data regarding housing being presented in the Social Impact Assessment (Appendix A4-15 and Chapter 14 of the EIS), the housing market in the Central Highlands has experienced significant change.</p> <p>The existing action in Table 19-9 in Chapter 19 of the EIS to <i>“work collaboratively with state and local government and other agencies to collect data and continue to monitor the cumulative impacts of activity on the accommodation market and work collaboratively to develop appropriate responses”</i> remains valid to address the issue raised. The key performance indicator to participate in planning forums regarding housing and accommodation provides for participation in an affordable housing trust or similar should such an initiative commence in the Central Highlands.</p> <p>DSDIP and DHPW have been included as key stakeholders to involve in this action.</p>
20.4	Chapter 19 - SIMP	<p>The Housing Analysis data (Chapter 14 Social Impacts – 14.3.4) also shows that the rental market in Central Highlands is characterised by rapidly rising median rents and declining proportions of affordable rental stock.</p> <p>Given this context, the potential for the project to contribute to the cumulative impact on housing affordability issues in local communities should be addressed.</p>	<p>The department also recommends that the draft Social Impact Management Plan include strategies for contributing to managing impacts on local housing affordability. For example, by working with other stakeholders and potential partners in the housing market – such as local councils, not-for-profit housing providers and other companies attempting to address cumulative housing impacts. The Department of State Development, Infrastructure and Planning and Department of Housing and Public Works should also be included in discussions on these issues.</p>	<p>The Draft SIMP includes a number of actions in regard to housing affordability with the aim of meeting the following objectives (among others). To:</p> <ul style="list-style-type: none"> • Provide accommodation options that cater for the entire workforce and provide choice in the accommodation options available • Monitor and manage the impacts and opportunities in the local housing markets of Springsure and Emerald, and allow flexible responses to reduce impacts and maximise opportunities regarding housing affordability in the local area. <p>The most relevant actions, for which DSDIP and DPWH have been included as stakeholders are:</p> <ul style="list-style-type: none"> • Work collaboratively with state and local government and other agencies to collect data and continue to monitor the cumulative impacts of activity on the accommodation market and work collaboratively to develop appropriate responses • Continue to monitor the housing and rental markets in Springsure and Emerald along with the wider Central Highlands Region and determine appropriate responses in consultation with key stakeholders. <p>No change to the proposed actions in regard to construction of housing is proposed.</p>

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Department of State Development, Infrastructure and Planning

Submission number	Topic	Comment	Recommendation / Suggestion	Response
21.1	Chapter 2 - Project Need and Alternatives	<p>The EIS makes reference to the Central Queensland Regional Plan: "The project will invest directly into local economies and address the six core themes of the Central Queensland Regional Plan, including:</p> <ul style="list-style-type: none"> - resource use, conservation and management - economic development - infrastructure - social and cultural development - education, training and research - planning and governance". <p>The Central Queensland regional plan is however still under development and the content to be included has yet to be confirmed. Therefore, the information presented in this section of the EIS may be in conflict with public statements made regarding matters which the regional plan will address and issues it will resolve.</p>	The EIS should acknowledge that the Central Queensland Regional Plan has not been implemented and is still under development.	The EIS has been updated to reflect the status of the Central Queensland Regional Plan.
21.2	Chapter 19 - SIMP	<p>DSDIP is not listed as a key stakeholder within Table 19-10, as DSDIP works with:</p> <ul style="list-style-type: none"> • proponents to develop 'local buy' programs • potential local suppliers to build their capability, develop capability statements and/or identify and support to attain compliance requirements. 	DSDIP/Queensland Government should be included as a key stakeholder within the table.	Table 19-10 has been updated to include DSDIP as a key stakeholder as requested.
21.3	Chapter 14 - Social Impacts	<p>The operational workforce is to be given the option of residing locally. An additional 139 houses are expected to be required, with 111 in Emerald and 28 in Springsure (Social Impact Assessment Report A4-15, Section 8.3).</p> <p>The housing market in Central Highlands is characterised by rapidly rising rents, declining affordable rental stock and increasing property values. The region is the second most expensive in Queensland with rents double the Queensland mean, including \$500/week in Emerald and \$450/week in Springsure EIS Chapter (14.3.4).</p> <p>The negative risk of increased housing costs is assessed as low for Emerald and high for Springsure (EIS Tables 14.4; 14.5)</p> <p>The cumulative impact assessment (EIS 14.5) finds increased demand for housing in Central Highlands, resulting in further rises in both house prices and rental costs.</p> <p>Given these assessments, the draft Social Impact Management Plan does not appear to adequately address these impacts. The higher number of additional houses estimated to be required in Emerald (111) is assessed as low risk, and the lower number in Springsure (28) is assessed as high risk. Although the percentage increase in additional housing demand arising from the project is lower in Emerald than Springsure, the absolute volume of housing required is material.</p>	It is specifically recommended that 139 houses be constructed by the proponent to mitigate operational worker housing impacts at Emerald and Springsure.	<p>Section 14.4.3 of the EIS states "Using the above workforce data and population assumptions, an additional 139 houses are expected to be required in the Central Highlands over the Project life, as a result of the Project." It should be noted that this assessment of 139 houses is expected to be required over the Project's 40 year life, and not within a more defined timeframe.</p> <p>Subsequent to the baseline data regarding housing being presented in the Social Impact Assessment (Appendix A4-15 and Chapter 14 of the EIS), the housing market in the Central Highlands has experienced significant change corresponding to a decline in activity in the resources sector. In May 2012 there were approximately 200 properties for sale in Emerald and since mid-June 2012 this figure has gradually increased to remain steady at around 500 since December 2012. Over the same period, the number of people looking at each property (on average) has declined from over 10 per property to between 2 and 3 since October 2012. Property prices have however tended to remain fairly constant (Source – realestate.com.au).</p> <p>This change in the housing market is acknowledged in Section 19.5.4 (Chapter 19 of the EIS) which notes that the changes since mid-2012 are likely to lessen any impacts on housing in the local area.</p> <p>While the submission does not propose a timeframe for houses to be constructed,</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
				<p>the recommendation “that 139 houses be constructed by the proponent to mitigate operational worker housing impacts at Emerald and Springsure” could have adverse impacts on the local housing market if the construction of any new homes was not planned and undertaken in response to trends within the housing sector.</p> <p>It is premature to be constructing houses at a time when the current housing market in the Central Highlands is able to accommodate growth. The proposed action included in 19.6.3 to “Continue to monitor the housing and rental markets in Springsure and Emerald along with the wider Central Highlands Region and determine appropriate responses in consultation with key stakeholders” remains the most appropriate response at this time.</p> <p>No change to the proposed actions in regard to construction of housing is proposed.</p>
21.4	Chapter 19 - SIMP	<p>The operational workforce is to be given the option of residing locally. An additional 139 houses are expected to be required, with 111 in Emerald and 28 in Springsure (Social Impact Assessment Report A4-15, Section 8.3).</p> <p>The housing market in Central Highlands is characterised by rapidly rising rents, declining affordable rental stock and increasing property values. The region is the second most expensive in Queensland with rents double the Queensland mean, including \$500/week in Emerald and \$450/week in Springsure EIS Chapter (14.3.4).</p> <p>The negative risk of increased housing costs is assessed as low for Emerald and high for Springsure (EIS Tables 14.4; 14.5)</p> <p>The cumulative impact assessment (EIS 14.5) finds increased demand for housing in Central Highlands, resulting in further rises in both house prices and rental costs.</p> <p>Given these assessments, the draft Social Impact Management Plan does not appear to adequately address these impacts. The higher number of additional houses estimated to be required in Emerald (111) is assessed as low risk, and the lower number in Springsure (28) is assessed as high risk. Although the percentage increase in additional housing demand arising from the project is lower in Emerald than Springsure, the absolute volume of housing required is material.</p>	<p>It is specifically recommended that 139 houses be constructed by the proponent to mitigate operational worker housing impacts at Emerald and Springsure.</p>	<p>Please refer response above to Issue 21.3</p>
21.5	Chapter 14 - Social Impacts	<p>In the action plan for mitigation of housing impacts, there is no undertaking to provide any additional housing, reinforced by the statement that the proponent is not proposing to purchase or rent accommodation for workers. The proponent undertakes only to work with others in the housing industry, such as local developers and the council, to seek a timely release of development to meet local housing demand (EIS 19.6.3)</p>	<p>It is suggested that the action plan should incorporate the process and performance measures to ensure that the volume and timing of additional housing can be provided with an outcome which aims to achieve reasonable costs to workers.</p>	<p>As the project continues to progress, ongoing engagement with stakeholders will continue and actions and performance measures, or key performance indicators, will become more specific. At this stage of SIMP key performance indicators are generally broad and will be discussed further with stakeholders.</p> <p>The Draft SIMP included in Chapter 19 of the EIS has been updated to reflect project progress. Some of the actions and key performance measures have been updated as a result of ongoing engagement with stakeholders.</p>

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21.6	Chapter 19 - SIMP	In the action plan for mitigation of housing impacts, there is no undertaking to provide any additional housing, reinforced by the statement that the proponent is not proposing to purchase or rent accommodation for workers. The proponent undertakes only to work with others in the housing industry, such as local developers and the council, to seek a timely release of development to meet local housing demand (EIS 19.6.3)	It is suggested that the action plan should incorporate the process and performance measures to ensure that the volume and timing of additional housing can be provided with an outcome which aims to achieve reasonable costs to workers.	<p>As the current housing market can meet any potential demand for housing generated by the Project, the proposed action to continue to liaise with key stakeholders, and keep DSDIP informed, is considered the most appropriate at this time. Depending upon when the Project is determined to have an effect on the housing market requiring the construction of additional housing, the process by which that is achieved may vary.</p> <p>It is considered more appropriate for the action plan to focus on the desired outcomes, being to (among others):</p> <ul style="list-style-type: none"> • Provide accommodation options that cater for the entire workforce and provide choice in the accommodation options available • Monitor and manage the impacts and opportunities in the local housing markets of Springsure and Emerald, and allow flexible responses to reduce impacts and maximise opportunities regarding housing affordability in the local area. <p>No change to the proposed actions in regard to construction of housing is proposed.</p>

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Landholder Services

Submission number	Topic	Comment	Recommendation / Suggestion	Response
22.01	Chapter 5 - Land (Land and soil resource issue)	<p>Section 5 of the EIS describes the process used to undertake the land and soil assessment. The section quotes a site density for observations of 1 site per 500 ha, of which 50% (13 sites out of 26) were what is known as check sites. The end result was a soils map shown in Figure 5.1 where only one soil is mapped – namely a Vertosol.</p> <p>The soil assessment is based on 2 published broad scale land resource surveys which are not appropriate for specific project or individual property investigations.</p> <p>A preliminary field inspection of soils within the Project Area identified 4 soils, each with markedly different agricultural suitability and management requirements (Listed in the table in section 2.2 of submission attachment A). Each of these soils can be mapped separately at a scale that is appropriate for determining suitability for various forms of land use. ATTACHMENT A</p>		<p>Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping was carried out at a scale of 1:50,000. This scale has been recommended by DNRM to provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites. Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008.</p> <p>Results from this study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision.</p> <p>Please refer to Chapter 5 – Land in the final EIS.</p>
22.02	Chapter 5 - Land (Land and soil resource issue)	<p>A national mapping dataset called "Atlas of Australian Soils" was used as the basis to describe and map the soil distribution within the project area. For Atlas of Australian Soils mapping 1 cm covers 20 km on the ground – a very coarse data set.</p> <p>The description of what soils occur inside each of the soil map units is wrong when compared to original reports accompanying the national mapping. Despite the fact that some soil site descriptions were done, the very coarse national soil mapping units are amalgamated into one soil unit covering the entire MLA – a very unlikely scenario. The amount of field work is inadequate to amend/confirm this mapping for assessment of development projects. The location of field investigation sites does not assist with understanding the landscapes throughout the entire project area. ATTACHMENT A</p>		<p>As noted above, a more detailed soils and land suitability survey has been undertaken for the MLA in May 2013. Results from this study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision.</p> <p>Please refer to Chapter 5 – Land in the final EIS.</p>
22.03	Appendices A4-7a-c "Groundwater Report" (Conceptual groundwater model)	<p>Section 2.2 Aquifer tests: 3 single well pumping tests were carried out in 2 formations. The pumping tests lasted for approximately 3 hours with no observation bores. The results can only give an initial estimate of the aquifer properties, as also pointed out by the authors. ATTACHMENT B</p>	<p>More fieldwork has to be undertaken to establish the properties of all modelled formations (or at least the aquifers). The conceptual model (used as a basis for the numerical model) uses literature values from other studies and not values determined by on-site testing.</p>	<p>Since preparation of the EIS, where we have been able to gain the consent of landholders, additional hydro census, groundwater level, aquifer properties and water quality data has been collected from properties and groundwater infrastructure maps updated. Additional data has been gathered from further drilling operations. Using the additional data collected, both the hydrogeological conceptual model and the numerical model have been updated. A revised groundwater report has been prepared along with a mitigation and monitoring strategy. Please refer to the revised Chapter 9 and Appendices 4-7a and 4-7b which are included on the enclosed USB.</p> <p>Based upon the assessments undertaken, it is unlikely there will be any impact on</p>

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				<p>the quantity or quality of groundwater from existing bores.</p> <p>SCC will implement a groundwater monitoring program to monitor the impacts of mining activity on groundwater and proactively address any potential impacts. In addition, we are seeking to enter into discussions with landholders to enter into compensation agreements regarding impacts as a result of mining, including impacts on groundwater infrastructure.</p>
22.03	Chapter 5 - Land (Land and soil resource issue)	<p>The soil assessment work provided in the EIS is based on 26 observation sites (of which only 20 are inside the MLA) when at the minimum 108 sites would have been required to conform to national standards and 430 sites would have been required to conform to Queensland resource sector guidelines.</p> <p>This has led to a gross underestimation of not only the number of soils in the project area, but of their key properties of significance to the management, mitigation or avoidance of impact. The soil survey and, as a result, any conclusions derived from it (such as GQAL or SCL) which would form part of any approval conditions is simply not acceptable. ATTACHMENT A</p>	<p>We recommended that the proponent be required to complete (as a minimum) a 1:50,000 soil survey using a methodology which is consistent with both the published guidelines for GQAL and SCL.</p> <p>LRAM understands from the landholders that they would cooperate with such a program given that sensible protocols were put in place to cover the impacts of any field work.</p>	<p>As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. The sampling for this assessment exceeds the minimum sampling requirements by McKenzie 2008.</p>
22.04	Appendices A4-7a-c "Groundwater Report" (Calibration - Goodness of fit)	<p>The model was calibrated in steady state. The report does not mention any state of the art calibration software, which leaves the impression that the calibration was undertaken manually by trial and error. This method is acceptable. However, with the modern computational tools available, the state of the art is automatic calibration. The steady state calibration resulted in a scaled root mean squared (SRMS) error of 10.8% for a reduced data set (eight observations, November 2012), which is slightly higher than the range of 5-10% for an acceptable calibration suggested by the Australian groundwater modelling guidelines (Barnett et al, 2012).</p> <p>Taking into account the fully available data set (which is also a recommendation by the Australian groundwater modelling), the SRMS error is 14.4%, which cannot be classified as acceptable. ATTACHMENT B</p>		<p>The model has been calibrated to both steady state and transient conditions. An automated parameter estimation technique has been used to assess parameter sensitivity and assist with calibration. Please refer to the updated model calibration in Section 9.5.4.</p>
22.04	Chapter 5 - Land (Land use, GQAL and SCL suitability assessment techniques)	<p>Interpretation of the soil mapping for agricultural suitability uses a different set of regional, broad scale mapping to that used to describe the soils. The regional, broad scale data set is the one most commonly used by state agencies – but there is no correlation between the mapping used to describe soils and the land suitability mapping. It appears that land suitability classification was undertaken - but only to assess the limited field investigation sites, not the actual soil map units. As a result,</p>	<p>The Land Suitability, GQAL and SCL assessments must be based on a scale relevant soil survey (in this case, 1:50,000 or even more detailed). The irreconcilable features of these matters in the EIS, where</p>	<p>As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. The sampling for this assessment exceeds the minimum sampling requirements by McKenzie 2008.</p>

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		no land suitability map is produced that is based on data actually assembled in the field during the EIS. ATTACHMENT A	largely regional and national scale data sets are used for project purposes is indefensible and needs to be either explained or replaced by a set of studies that responds to the ToR.	
22.05	Chapter 5 - Land (Land use, GQAL and SCL suitability assessment techniques)	<p>Figure 18.2 and associated text shows land use as Cropping, Irrigation and Grazing. The Den Lo property is shown as dominantly irrigated cropping with most of the remaining properties shown as cropping (presumably dryland) except for the riparian zones and major overland flow paths.</p> <p>LRAM's field investigations indicate that Den Lo and Springton have both water storages and irrigated cropping – the greater majority of it on the lower sloping, deeper clays soils. Whilst grain and pulse crops are grown, some cotton is also grown. The irrigation systems use both furrow/flood methods and centre pivot spray systems. ATTACHMENT A</p>	Clearly identify irrigated areas and their associated water storage systems and operational needs. It is clear from the LRAM field inspection that the main storages (including those on Den Lo) are gravity filled by a combination of overland flow and riparian flooding. Unless these features are properly described, there is no basis on which to describe the impact	<p>GQAL mapping is was based on the DERM 2010 data base. The GQAL assessment discussed in section 5.4.5.4 of the EIS discusses discrepancies with the mapping and identifies much of the Project area as class A or B.</p> <p>As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. The sampling for this assessment exceeds the minimum sampling requirements by McKenzie 2008. Results from this study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision. This study will also be used to further develop management programs and plans for the Project.</p> <p>Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For land which is deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p>
22.06	Chapter 5 - Land (Land use, GQAL and SCL suitability assessment techniques)	<p>Figure 5.9 shows the distribution of GQAL (sourced from DERM) across the area. In this map, most of Den Lo is shown as pastoral quality land (C1 or C2) with a smaller area as crop land (A).</p> <p>The dryland cropping systems are based around broad hectare crop rotations of winter and summer grain and pulses along with opportunistic oil seed crops. The farming systems, whilst broad hectare, are relatively intensive - with cropping intensities in average years of between 2 and 3 crops every two years. Minimum tillage (along with some zero tillage) and tram- lining is used along with cropping over broad contour banks. ATTACHMENT A</p>	Clearly and fully describe the main components of the pre mining land use systems and accurately map their extent with a focus on features of those systems that are most prone to being impacted by the mining operation	<p>As noted above, GQAL mapping is was based on the DERM 2010 data base. The GQAL assessment discussed in section 5.4.5.4 of the EIS discusses discrepancies with the mapping and identifies much of the Project area as class A or B. Results from the most recent study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision. This study will also be used to further develop management programs and plans for the Project.</p> <p>Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For land which is deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p>
22.06	Chapter 5 - Land	e) The Draft EIS fails to deal with changes in slope (even though there are appropriate mapping systems available), but we believe it inevitable that post-subsidence slopes would exceed 3% over a considerable area. The land so affected would no longer qualify as Strategic Cropping Land. Other parts of the land with lesser degrees of post-subsidence slope would also be permanently disqualified as Strategic Cropping Land because it was below the minimum area of 100 hectares and at least 8 metres wide. ATTACHMENT C		<p>As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. Results from the most recent study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision. This study will also be used to further develop management programs and plans for the Project.</p> <p>The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided</p>

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				<p>land.</p> <p>SCC is committed to maintaining or improving agricultural productivity on subsided land and has demonstrated this commitment by investment in the independent Agricultural Co-existence Research Committee which has been established to guide co-existence research aimed at:</p> <ul style="list-style-type: none"> • Maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas; and • Understanding community expectations and identifying strategies to minimise adverse impacts and maximise the social and economic benefits of the mining investment.
22.07	Chapter 9 - Groundwater	c) Vital issues such as aquifer testing, measurement of groundwater levels, impacts and mitigation have not been satisfactorily investigated. ATTACHMENT C		Additional hydrogeological data including groundwater levels, aquifer test, bore yield, water quality and hydro census data have been incorporated to update the hydrogeological conceptualisation. Please refer to Chapter 9 of the final EIS.
22.07	Chapter 5 - Land (Land use, GQAL and SCL suitability assessment techniques)	Figure 5.10 shows the result of an SCL assessment in a pixelated map – the source of which is not indicated. Areas of Den-Lo which are the lowest quality pastoral land in Figure 5.9 are shown as SCL in Figure 5.10 and are shown as irrigated in Figure 18.2. Given that SCL lands are generally considered to be a subset of GQAL Class A lands, the most generous conclusion one can draw from this is that the three sets of maps are simply irreconcilable. ATTACHMENT A		<p>As noted above, GQAL mapping is was based on the DERM 2010 data base. The GQAL assessment discussed in section 5.4.5.4 of the EIS discusses discrepancies with the mapping and identifies much of the Project area as class A or B. Results from the most recent study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision. This study will also be used to further develop management programs and plans for the Project.</p> <p>Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For land which is deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p>
22.08	Chapter 5 - Land (Land use, GQAL and SCL suitability assessment techniques)	Elsewhere in the EIS, the impacts of subsidence are not discussed in terms of their impacts on land resource values. Irrespective of whether the proponent is able define the impacts, this does not mean that the land use systems and land resource values which will be impacted should not be described in detail. ATTACHMENT A		Chapter 5 - Land of the final EIS has been updated to include an assessment of current farming practices, cropping and the impacts of subsidence on these values.
22.09	Chapter 8 - Surface Water	Despite the modelling evidence that overland flow of depths up to 50 cm within contour banks will occur within the rain fed cropped areas, there is no discussion of the significance of overland flow processes. The fact that a substantial impact can be expected as a result of subsidence is shown in the increases in area flooded within crop lands and in the increased extent of ponding. ATTACHMENT A	In association with the pre mining land use mapping, the overland flow environment needs to be described and related to pre mining soil erosion management systems. Benchmarks should be used for overland flow stability (width by depth by vegetation status	<p>Overland flow, stream flow and ponding throughout the EIS are discussed in Chapter 8 - Surface Water and Appendix A4-5. Subsidence will impact overland flows however through mitigation flow regimes can be reinstated and redirected. Ponding impacts are not anticipated to be significant and will be managed.</p> <p>A flood model was developed using ""rain on grid"" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the</p>

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			for 1:25, 1:50 and 1:100 storm events for catchments) and sized so that the rational method of storm runoff can be applied. Typically this will require the rational method being applied to a selection of a pre mining contoured farmed areas for various soil groups and comparing the post with the pre mining outcomes given the slope changes suggested in the EIS.	unmitigated case assuming all subsidence occurs simultaneously. Further staged assessment will be undertaken as the project progresses to analyse in finer detail the effects of any likely changes to overland flow and ponding regimes and subsequent effects on individual properties. This will include likely effects on current soil management (including sediment and erosion controls), irrigation and general agricultural practises. Further liaison/consultation will be undertaken with individual affected property owners to further understand and mitigate likely effects on current agricultural practices. A subsidence management plan and an agricultural management plan will be developed as a later stage.
22.10	Chapter 8 - Surface Water	Figure 1 shows increased ponding within the Crinum Creek area due to subsidence disrupting the pre mining overland flow patterns. This increase is not quantified (which can easily be done) nor is there any discussion on how this may impact on the broad hectare cropping systems being used. ATTACHMENT A	<ul style="list-style-type: none"> Key assumptions in the with-remediation scenario (such as strategies to be applied, type of land use system post remediation etc) should be detailed. 	<p>The methodology for the flood model is described above. All expected ponding has already been quantified and used as a base input into the stream flow assessment.</p> <p>Subsidence Management Plans, Agricultural Management Plans, Erosion Sediment Control Plans and Vegetation Management Plans will be developed prior to construction of the Project. These plans will detail how management and mitigation of stream beds, water flows and ponding will be addressed.</p>
22.11	Chapter 8 - Surface Water	It is simply incorrect to state that the only wetlands are associated with farm dams. During LRAM's brief field inspections, two major occurrences of water table seepage wetlands (one of which is saline) were noted. ATTACHMENT A		The EIS does not state that the only wetlands associated with the Project are farm dams. It simply identifies that four wetlands identified in the Project area are in fact farm dams.
22.12	Chapter 8 - Surface Water	Because the EIS fails to define the pre mining soil erosion and conservation measures practised within crop lands and then fails to deal with overland flow within crop lands, the erosion and sedimentation section in the report and the conclusion drawn on the effects of subsidence cannot be technically justified or defended. ATTACHMENT A	<ul style="list-style-type: none"> The extent of change should be tabulated by property, soil and land use conditions and the impacts of these changes in the with- and without- remediation scenarios on pre mining land use should be stated. 	The methodology for the flood model has been described above. All expected ponding has already been quantified and used as a base input into the stream flow assessment. A subsidence management plan and an agricultural management plan will be developed as a later stage.
22.13	Chapter 5 - Land	In the Crinum Creek area, there are similar soils which now grow pasture but were previously cropped. This suggests that returning subsided areas to viable, broad hectare cropping regimes may not always be possible. ATTACHMENT A	<ul style="list-style-type: none"> Compile existing data in the EIS on a property by property basis on what the EIS refers to as flooding and pondage and quantify the extent by area and land use type. 	We cannot speculate as to the commercial decisions regarding farming practices on other properties. However, it is our understanding that Crinum Creek was originally grazing land and was converted to cropping for a short period of time only before reverting back to grazing.
22.14	Chapter 5 - Land	The assessment of impact on the agricultural activities does not include detailed comparison of the ability, management inputs required and cost to farm before or after subsidence ATTACHMENT A	<ul style="list-style-type: none"> Combine the results of the subsidence modelling with an improved description of the broad hectare and irrigation 	Chapter 5 of the final EIS now includes a detailed assessment of agricultural impacts on current farming practices.



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			farming systems to initially identify what components of those farming systems will be impacted	
22.15	Chapter 5 - Land	Whilst not stated in the report, land subject to subsidence may be removed from cropping for periods of up to a number of decades under the current long wall staging strategy even if one assumes that these lands can be rehabilitated. ATTACHMENT A	Use existing EIS data to project forward over the lifetime of the project the number of years that currently cropped areas will be removed from production.	The EIS refers to disruptions during active subsidence which occurs within a few days or weeks. Once that initial subsidence has taken place, agricultural activity is likely to be able to recommence. The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided land.
22.16	General	Does not comply with Terms of Reference ATTACHMENT A		It is our view that the EIS does comply with the Terms of Reference. Prior to public notification of the EIS, EHP undertakes an adequacy review of the EIS to determine whether it has addressed the Terms of Reference. In this instance, adequacy was determined and the EIS was publicly notified.
22.17	Chapter 9 - Groundwater (background)	The Springsure Creek EIS does not have a particular section which summarises the conceptual hydrogeological model for the site. Rather available data is scattered from Section 9.3.7 through to and including Section 9.3.13. ATTACHMENT B	In broad terms, the conceptual model needs to describe: <ul style="list-style-type: none"> · the location and rate of recharge to each stratigraphic sequence defined in the model; · the dimensions and hydraulic characteristics of each horizon in the model and whether they are interconnected; and · the location and rate of discharge of groundwater from any horizon described in the model. 	Updated hydrogeological conceptual model is presented in the final EIS. The rate of recharge and discharge are estimated through model calibration. Please refer to Section 9.3 and Section 9.5 along with Appendices A4-7a and A4-7b.
22.18	Chapter 9 - Groundwater (geological structure)	The regional geology is explained in two paragraphs in Section 9.3.7.1. The last two sentences state: "Faulting is common on the western margin of the Denison Trough. This includes the Albania/Merivale Fault, which traverses through the south eastern portion of the tenement ". The local geology is described in Section 9.3.7.2. Although it is stated that there are four anticlines in the mining area and that a major fault occurs in the south east area (Section 9.3.7.1), there is no discussion about whether associated faulting structures exist nor any potential impact these faulting structures may or may not have on the groundwater flow. These structural elements were not included in the numerical model. ATTACHMENT B		The description of geology has been updated. Please refer to Section 9.3 of the final EIS.
22.19	Chapter 9 -	The hydraulic testing undertaken was inadequate. Four bores were		Since preparation of the EIS, where we have been able to gain the consent of

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	Groundwater (aquifer testing)	<p>tested, two basalt bores and one each from a shale and sandstone aquifer (DNRM data base logs). The short term testing techniques used are adversely affected by near-well conditions.</p> <p>Hence, this data is not suitable for use in a numerical model.</p> <p>ATTACHMENT B</p>		<p>landholders, additional hydro census, groundwater level, aquifer properties and water quality data has been collected from properties and groundwater infrastructure maps updated. Additional data has been gathered from further drilling operations. Using the additional data collected, both the hydrogeological conceptual model and the numerical model have been updated. A revised groundwater report has been prepared along with a mitigation and monitoring strategy. Please refer to the revised Chapter 9 and Appendices 4-7a and 4-7b which are included on the enclosed USB.</p> <p>Based upon the assessments undertaken, it is unlikely there will be any impact on the quantity or quality of groundwater from existing bores.</p> <p>SCC will implement a groundwater monitoring program to monitor the impacts of mining activity on groundwater and proactively address any potential impacts. In addition, we are seeking to enter into discussions with landholders to enter into compensation agreements regarding impacts as a result of mining, including impacts on groundwater infrastructure.</p>
22.20	Chapter 9 - Groundwater (aquifer testing)	<p>Several methods were chosen to calculate the transmissivity (and hydraulic conductivity) and the storage coefficient of the tested formations. Table 9-7 lists the resulting parameters. In this table, values for "Ss" are shown. It is not clear whether the value refers to the storativity S (or storage coefficient) which is indeed dimensionless or if the values refer to the specific storage Ss (1/m), being a parameter used in numerical modelling. The resulting storage coefficients or specific storage values range 6×10^{-4} to 2×10^{-1}. This is considered to be a large range for a numerical model and requires discussion and validation about which values should be used in the model. ATTACHMENT B</p>		<p>Please refer to the updated hydrogeological property in Section 9.3 of the final EIS.</p>
22.21	Chapter 9 - Groundwater (aquifer testing)	<p>The specific yield Sy of a formation can be visualised as drainable porosity for an unconfined aquifer. The basalt aquifer is defined as a water table aquifer (unconfined) by the authors. The Sy and hence the drainable porosity of the basalt ranges between 6×10^{-6} to 9×10^{-3}. Again there is no discussion about the broad range and no recommendation about which parameter should be used in the numerical modelling.</p> <p>ATTACHMENT B</p>		<p>No reliable estimates of storage coefficients can be deducted from single well pumping tests and slug tests. Sy of Basalt has been estimated during model calibration.</p>
22.22	Chapter 9 - Groundwater (aquifer testing)	<p>Finally, the results from individual analyses were averaged to produce an arithmetic mean with variance. This mean was not used as an input parameter for the groundwater model. As three separate aquifers were being tested, an average of the hydraulic parameters from all three aquifers is meaningless. ATTACHMENT B</p>		<p>Please refer to the updated Chapter 9 - Groundwater in the final EIS for comments on updated model calibration.</p>
22.23	Chapter 9 - Groundwater (aquifer testing)	<p>An additional issue with the pump test analysis is that the hydrological properties listed in Table 9-7 of EIS Chapter 9 and the values listed in Table 2-3 of the GWR do not match. Both tables have been reproduced in</p>		<p>This has been corrected. Please refer to Section 9.3 of the final EIS.</p>



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		the figure below. On the example of GW11 (RN103460) the conflicting values have been highlighted. There is also conflicting information for the other bores. The analysis methods differ as well. ATTACHMENT B		
22.24	Chapter 9 - Groundwater (groundwater levels)	<p>The majority of reliable groundwater levels in this area are from the basalt aquifer.</p> <p>There are only two monitoring bores in the deeper formations, SP 137 in the Rewan Formation and SP 138 in Aries 2 coal seam. SP 136 is in the overlying basalt aquifer.</p> <p>Examining the response of the water levels (Table 9-6 GWR) to a period of time from the 1 September to 8 November 2012, the following observations are made by WSA:</p> <ul style="list-style-type: none"> • The water levels in the basalt aquifer essentially stayed constant • The water levels in the underlying Rewan Formation continued to rise to within 7 m of the basalt water level. Note - this formation is described as a "confining bed" (i.e. does not transmit groundwater easily) in Table 9-3 • The water level in the Aries 2 seam rose 24 m in 3 days before levelling off at about 4 m below the basalt aquifer level. <p>This limited data suggests the following aquifer interactions:</p> <ul style="list-style-type: none"> • The fact that the deepest Aries 2 aquifer had a higher hydraulic head than the overlying Rewan Formation suggests that the water movement was upward even though the basalt water level was highest of all • The Aries 2 seam received ready and substantial recharge during the time water levels were measured • There is hydraulic connection between the Rewan Formation and the Aries 2 coal seam aquifer in this area • The relationship between the two deeper aquifers and the overlying basalt cannot be determined using water level data alone. <p>The authors of the EIS did not discuss this information. ATTACHMENT B</p>		<p>The rising trends recorded in a number of deep wells are due to slow, post-construction recovery. Groundwater levels in these wells have recently stabilised. Please refer to Section 9.3.6.2 of the final EIS. The hydrogeological conceptual model and numerical model have been updated.</p>
22.25	Chapter 9 - Groundwater (groundwater quality)	<p>The conclusions drawn in the EIS on the acceptability of the groundwater for local use are supported by WSA, however information drawn from the Piper Plot figures raise concern.</p> <p>The historical DNRM data base data was examined and several bores were resampled as part of the EIS. On-site parameters were measured during sampling but not reported for each bore (other than ranges for each formation). It is preferable to present all data as measured during fieldworks. However, WSA still agrees with the acceptability of the groundwater for local use based on the information provided.</p> <p>Based on the limited data of Figure 9-6 of the Piper Plot it could be</p>		<p>As noted above, subsequent to the EIS being prepared, additional groundwater monitoring has been undertaken. The hydrogeological conceptual model has been updated and additional hydro census and water quality data have been collected. Please refer to Chapter 9 - Groundwater and Appendices A4-7a and A4-7b.</p>

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		<p>concluded that the basalt aquifers and the underlying sandstone/shale aquifers are interconnected.</p> <p>Review of Figure 9-6 of the Piper Plot shows that the groundwater quality of different formations show up in the same location of the diamond grid. For example, in the base of the diamond, samples from GW14 (200m deep sandstone bore), GW01 (76m deep basalt bore) and GW04 (assumed to be GW04-AH, 58m deep basalt bore) are grouped together. As this situation also occurs elsewhere in the Piper diamond, it could be concluded that the basalt aquifers and the underlying sandstone/shale aquifers are interconnected.</p> <p>Additional evidence to support this concept is that, although the groundwater salinity varies across the area, the salinity levels in the deeper Bandanna aquifer are relatively low. This suggests that the hydrogeological regime within this system is active with recharge to and discharge from the aquifer occurring readily. ATTACHMENT B</p>		
22.26	Chapter 9 - Groundwater (Potential Impacts and mitigation)	<p>Section 9.5 of the EIS Chapter 9 lists potential impacts during the project phases combined with the risk level. WSA does not agree in classifying the drawdown on local bores as a medium risk. A great concern of the landholders is the dewatering of the basalt aquifer in the region due to the mining activities. The modelling shows that the maximum drawdown in the basalt aquifer only occurs hundreds of years after the mining operation is scheduled to be finished. This drawdown would not be a reversible impact, but one that develops slowly over time. Sensitivity runs of the numerical model show that the drawdown might range from 2-20m, depending on the parameters used. It is not clear, which parameter set is reflecting the aquifer conditions actually monitored. Therefore, WSA considers the level of risk to be higher because the potential drawdown would be widespread harm and is not reversible in a short time frame. ATTACHMENT B</p>		<p>As noted above, the hydrogeological conceptual model and numerical model have been updated. Modelling conservatively assumes cracking of the Basalt. Local experience suggests that cracking and dewatering of the Basalt are unlikely due to the depth of the seams and geology of the Project area. The maximum reduction in Basalt saturated thickness at registered bores is 14 %, assuming a worst case scenario. Therefore predicted drawdown impact on groundwater resources is considered low.</p>
22.27	Chapter 9 - Groundwater (Potential Impacts and mitigation)	<p>Section 9.6 of the EIS Chapter 9 then propose a mitigation strategy for potential drawdown: <i>"The degree that mitigation against drawdown is required will become clearer if impacts are observed at the water table during operation. As drawdown depends on a range of factors including the level of subsidence, significant information that will refine much information will be gained when the first panel is mined, but in some cases it is possible to reduce impacts by modifying the mine plan. Possibilities include modifying the dimension of panels, the order of mining of panels or the installation of bulkheads to allow some mined areas (goafs) to refill with groundwater, without water draining from those areas contributing to subsequent dewatering requirements. In some circumstances it may be</i></p>	<p>The authors should use the tools available (i.e. the numerical groundwater model) to quantify the risk of drawdown occurring. The mine plan should then be re-assessed, before the operations start, not after the first impacts have been observed.</p>	<p>The hydrogeological conceptual model and numerical model have been updated. Additional hydro census, groundwater level, aquifer properties and water quality data have been collected. The modelling conservatively assumes cracking of the Basalt, however local experience suggests that cracking and dewatering of the Basalt is unlikely. Therefore, modelling is conservative.</p> <p>Adaptive management strategy is proposed as drawdown will dependent on a number of factors. Monitoring of depressurisation at multiple levels below the Basalt can be used to identify possible cracking of the goaf and need to modify the mine plan before the impacts occur at the water table. Please refer to Section 9.5 and Section 9.6 of the revised report</p>

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		<p><i>possible to use water from mine dewatering to recharge areas where the water table has dropped."</i></p> <p>WSA considers this approach unacceptable. ATTACHMENT B</p>		
22.28	General	Terms of Reference not addressed ATTACHMENT B		As noted previously, it is our view that the EIS does comply with the Terms of Reference.
22.29	Appendices A4-7a-c "Groundwater Report" (Conceptual groundwater model)	It is the opinion of the reviewers that the conceptual groundwater model has not been established to a level of detail which would allow an accurate numerical model to be constructed (see also Section 2.2 of this report). The conceptual model as presented in Section 2 of the GWR covers the hydrogeological properties and processes only from a theoretical point of view. ATTACHMENT B	Before setting up the numerical groundwater model, a conceptual groundwater model has to be set up. Section 2 of the groundwater technical report has the title "conceptual groundwater model". A conceptual model of a site explains the underlying physical properties and processes such as geology, any aquifers present with their hydrogeological properties, the interaction between aquifers as well as between aquifers and the hydrosphere. It is common to visualise the conceptual model in 3D or in relevant cross sections (e.g. AGE 2006, RPS Aquaterra 2012).	<p>The groundwater technical report and Chapter 9 of the final EIS have been combined. The hydrogeological conceptual model and numerical model have been updated, incorporating additional data collected in May 2013.</p> <p>Please refer to the updated hydrogeological conceptualisation in Section 9.3 and updated model calibration in Section 9.5.4.</p>
22.31	Appendices A4-7a-c "Groundwater Report" (Conceptual groundwater model)	The nested wells SPR136, SPR137 and SPR138 appear to be drilled by the project applicants (no dates of drilling provided) in three different stratigraphic units. It is not clear why these bores have not been tested to determine long-term pumping tests and aquifer parameters. ATTACHMENT B		The bore construction details and associated data from these bores are described in the revised report included in Appendix A4-7a.
22.32	Appendices A4-7a-c "Groundwater Report" (Conceptual groundwater model)	Section 2.3 Hydrostratigraphic Units. This section briefly describes the hydrogeological formations present from a geological point of view. The flow patterns, groundwater quality and connections to other aquifers are not described. ATTACHMENT B		These are discussed in Chapter 9, Section 9.3, as part of the hydrogeological conceptualisation.
22.33	Appendices A4-7a-c "Groundwater Report" (Conceptual groundwater model)	Section 2.4 Groundwater flow regime. It is the opinion of the reviewer that this section should contain the conceptual groundwater model. The section offers a brief description of the available groundwater level data, but is lacking the following information. There is no description of a general flow direction, no interpreted contours of the groundwater levels or any description on the processes in the underlying groundwater system, such as recharge to the aquifers, interaction between the	It is the opinion of the reviewer that this section should contain the conceptual groundwater model.	The groundwater flow regime is described as part of the hydrogeological conceptual model outlined in Chapter 9, Section 9.3. A summary of hydrogeological conceptualisation is presented with a schematic cross-section.

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		aquifers, regional inflow or regional outflows. ATTACHMENT B		
22.34	Appendices A4-7a-c "Groundwater Report" (Conceptual groundwater model)	Section 2.5. Groundwater dependent Ecosystems. This section explains some of the recharge and evapotranspiration processes in the alluvium and basalt aquifers. These processes however are located in a very shallow part of the site, e.g. the first few metres below the surface. The changes in recharge pattern could have an impact on lower aquifers, this has not been discussed. ATTACHMENT B		The hydrogeological conceptual model and numerical model have been updated and there are further discussions on recharge, discharge and GDE both based on data and model calibration. Please refer to the updated hydrogeological conceptualisation in Chapter 9, Section 9.3 and updated model calibration in Section 9.5.4.
22.35	Appendices A4-7a-c "Groundwater Report" (Conceptual groundwater model)	Section 2.6 Review of the effect of longwall mining on hydrogeological properties. This section presents a good overview of the theory of the impacts of longwall mining on the hydrogeological structures above the zone being mined. ATTACHMENT B		Noted.
22.36	Appendices A4-7a-c "Groundwater Report" (Conceptual groundwater model)	Section 2.7 Representation of Longwall mining at Springsure Creek. This section covers the representation of the mining in the model area. However, there is no mention about basalt thicknesses and the likelihood that the basalt could be affected by fracturing due to subsidence within the underlying formations. ATTACHMENT B		The potential effects of fracturing are discussed in detail in Chapter 9, Section 9.5 of the final EIS. The base case model conservatively assumes that the fractured zone extends into the base of the Basalt by several 10s of metres in parts of the mine area. Local experience suggests that fracturing of Basalt is unlikely due to the depth of the seam and the geology of the Project area. Both scenarios are presented in the final EIS.
22.37	Appendices A4-7a-c "Groundwater Report" (Conceptual groundwater model)	The parameters used for the conceptual groundwater model are not sufficient because of lack of data. More fieldwork should be undertaken and the underlying hydrogeological processes have to be described in more detail. The conceptual model in its current state is not accurate and should be disregarded. ATTACHMENT B	More fieldwork should be undertaken and the underlying hydrogeological processes have to be described in more detail.	The hydrogeological conceptual model and numerical model have been updated, incorporating additional data. Please refer to the updated hydrogeological conceptualisation in Section 9.3 and updated model calibration in Section 9.5.4.
22.38	Appendices A4-7a-c "Groundwater Report" (Geometry and boundary conditions)	The cell sizes vary from 350m regionally to 175m in the proposed mining region. This means that in the mining region, two cells cover 350m which is more than the width of a mining panel. Comparable groundwater model studies in EIS's for mining applications (e.g. AGE 2006, RPS Aquaterra 2012) have chosen cell widths of 50m within the mining lease boundary to more accurately represent mining panel sizes. The model is divided into 14 model layers. There is no indication given as to whether the classification of each layer is confined, unconfined or changing over time. The reviewers would expect the alluvium and the basalt to be unconfined. ATTACHMENT B		Cell discretisation of 175 m is considered appropriate for a regional scale assessment. There are some overlaps of cells which will be conservative in terms of predicting impacts. Layer type of each layer is discussed in the final EIS. Please refer to Chapter 9, Section 9.5.
22.39	Appendices A4-7a-c "Groundwater Report" (Model set up - Geometry and boundary conditions)	A prescribed head boundary is assigned to layers 2-14 with a head of 140m Australian Height Datum (AHD). There is no explanation how this head has been derived and what type of boundary it represents. The rest of the model boundary is designated as a no flow boundary which means that there is no regional groundwater flow entering or leaving the system. It is considered doubtful that this reflects the flow conditions in this region. With the poorly defined conceptual model, the use of these boundary conditions cannot be assessed by the reviewers. ATTACHMENT		The head boundary value is based on the observed groundwater levels. Please refer to groundwater contour figures presented in the final EIS.



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22.41	Appendices A4-7a-c "Groundwater Report" (Calibration - Goodness of fit)	In the GWR, section 3.3, a scatter plot is provided to show the observed versus the modelled groundwater levels, for the reduced and the full set of observations. The scatter plot for both cases shows a bias. The model produces lower hydraulic heads for the lower range of observations and higher hydraulic heads for the higher observations. This indicates a systematic error in the conceptual and/or numerical model, which should be further investigated. ATTACHMENT B	Should be further investigated	Model calibration has been updated and the model is better calibrated. Please refer to the updated model calibration in Chapter 9, Section 9.5.4.
22.42	Appendices A4-7a-c "Groundwater Report" (Calibration - Reduced versus full data set)	<p>The use of selected data instead of a full data set decreases the accuracy of results from the model and can be questionable. The scarcity of data is mentioned in the report. However, the acceptable calibration result is based on eight observed groundwater levels for 14 layers, which leaves one point per layer in the best case for the calibration (or several bores in the basalt layer and none in others).</p> <p>The Australian groundwater modelling guidelines (Barnett et al, 2012) give the following guiding principle: "5.1: All available information should be used to guide the parameterisation and model calibration". The authors of the model did not include all available information. ATTACHMENT B</p>	The value of a predictive model with this minimal data input is questionable. As mentioned previously more fieldwork needs to be undertaken to provide sufficient data and all data needs to be incorporated into the model. If any data is omitted justification should be provided in the report.	The hydrogeological conceptual model and numerical model have been updated incorporating additional data collected in May 2013. Please refer to the updated hydrogeological conceptualisation in Chapter 9, Section 9.3 and updated model calibration in Section 9.5.4.
22.43	Appendices A4-7a-c "Groundwater Report" (Calibration - Reduced versus full data set)	<p>The selected data set from November 2012 reflects one point in time. The model, however, reflects the steady state case. Figure 9-5 of Chapter 9 – Groundwater (EIS) shows the groundwater elevation versus the rainfall cumulative deviation from mean.</p> <p>The November 2012 falls into a period of high rainfall, which led to the groundwater level in the basalt rising by 5-8m over 5 years. This data set won't accurately fit the steady state conditions. ATTACHMENT B</p>	Taking into consideration different measurements from different points in time will help to find the best average conditions.	The hydrogeological conceptual model and numerical model have been updated. Steady state condition is intended to represent an approximate long-term average condition assimilating groundwater level data from different points in time. Please refer to the updated hydrogeological conceptualisation in Chapter 9, Section 9.3 and updated model calibration in Section 9.5.4.
22.44	Appendices A4-7a-c "Groundwater Report" (Calibration - Water balance)	The modelling section describes the modelling concept, including how the evapotranspiration was taken into account in the model. Based on lack of data input and justification provided in this section, the concept in its current form is unacceptable. The so-called extinction depth was set at 3m, which means that groundwater up to this depth evaporates (out flow). The water balance after calibration (p 36 of the Modelling report) and for the base case prediction (Table 4.2 p 43) are reproduced in Table 1. The amount of evapotranspiration in the steady state case seems to be very high, considering that the water table in the upper, unconfined aquifers are more than 3m below surface. None of the water table observations listed in Annex A are less than 3m below surface. An explanation could be that there are no bores in the alluvium. However, the evaporation still seems to be very high. In the groundwater model, 96% of the water input (through recharge only) is evaporated and	WSA believes that the modelling concept should be revised. No clear description or graphical representation has been provided. The groundwater flow within the coal seams have not been described or discussed within the EIS.	The hydrogeological conceptual model and numerical model have been updated incorporating additional data collected in May 2013. Please refer to the updated hydrogeological conceptualisation in Chapter 9, Section 9.3 and updated model calibration in Section 9.5.4.

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		only 4% leave the groundwater system via regional flow (Table 1, "Head BC out. ATTACHMENT B		
22.45	Appendices A4-7a-c "Groundwater Report" (Calibration - Water balance)	The water balance for the base case prediction shows no change in the recharge and evapotranspiration. Due to the mining, the regional outflow (Head BC out) is being reduced from 2.2 ML/day to 0.15 ML/d. Also, the amount of water leaving the system over the regional outflow is now pumped by the mine for dewatering. This implies that the mine inflows are significant compared to the regional flow. ATTACHMENT B		The hydrogeological conceptual model and numerical model have been updated incorporating additional data collected in May 2013. Please refer to the results from the updated model presented in Chapter 9, Section 9.5.
22.46	Appendices A4-7a-c "Groundwater Report" (Calibration - Model parameters)	Table 3-2 of the GWR lists the final parameters used in the model after calibration. The specific storage is the same for all model layers, including the unconfined alluvial and basalt aquifers. The thickness of these layers is not known, the final storage coefficient cannot be established by the reviewers. In addition, there is no discussion as to why the parameters established during the pumping test were not used for modelling. ATTACHMENT B	In the steady state model, the specific storage parameter is not important, as there is no time component included. However, it is an important parameter for the transient model which is used to predict future impacts.	Transient model calibration has been undertaken to constrain the specific yield of Basalt. Specific storage has been reduced during uncertainty analysis. Please refer to Chapter 9, Section 9.5.6.
22.47	Appendices A4-7a-c "Groundwater Report" (Calibration - Results of the steady state model)	The results of the steady state model are presented as head comparisons and as a water balance only. There is no map with contours showing the calculated steady state water levels in the basalt aquifer or the underlying coal seams. ATTACHMENT B		Additional figures have been included to present the quality of model calibration. Please refer to Chapter 9, Section 9.5.4.
22.48	Appendices A4-7a-c "Groundwater Report" (Predictive modelling - impact on bores)	There are no hydrographs showing the predicted impacts of the mine dewatering on the existing bores in the basalt aquifer within the mining lease. Figure 4-3 shows the drawdown at nine virtual monitoring locations. This plot shows that, according to the model calculations, there is almost no drawdown occurring during the mining. However, years later, the effects of the mine dewatering will become apparent in the basalt aquifer. ATTACHMENT B	This information should be included in the report and figures.	Figures and tables in the report have been updated. Please refer to Chapter 9, Section 9.5.5.
22.49	Appendices A4-7a-c "Groundwater Report" (Predictive modelling - sensitivity analysis)	The authors of the study investigated three scenarios for the sensitivity analysis. From the "Base Case" to Case A, only one parameter was changed. Case B is an entirely new scenario (change of recharge pattern as well as changes of the hydraulic properties in three formations). Case C is then derived from case B by changing the hydrogeological parameters for another three formations. There is no SRMS (refer to Section 3.2.2 above) given for the steady state results for these sensitivity runs. Without the SRMS, the goodness of fit (and therefore the likelihood of these runs to be suitable for predictions) cannot be evaluated by the reviewers. The results of the sensitivity analysis show that the drawdown in water	A sensitivity analysis should demonstrate possible scenarios including the worst case using different inputs that could be likely.	The updated model has been run for a number of scenarios and sensitivity of drawdown predictions to uncalibrated parameters have been discussed and addressed as part of uncertainty analysis. Please refer to Chapter 9, Section 9.5.6 of the final EIS.

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		levels can vary greatly depending on the input parameters. The cause of the variability of the results is not discussed. There is also no comment on which of these scenarios are most likely. ATTACHMENT B		
22.50	Appendices A4-7a-c "Groundwater Report" (Predictive modelling - subsidence)	<p>The subsidence is discussed in a theoretical manner in Sections 2.6 and 2.7 of the GWR. However, the implications for the basalt aquifer have not been discussed specifically for this site.</p> <p>P 17 of the modelling report states that the transmissivity and yields of the Bandanna Formation are similar to those in the Basalt, "particularly where the interburden is shallow (less than 100m)". The report on the findings in the Crinum mine (Payne 2008) showed that an interburden of less than 90m could lead to collapses and higher than estimated groundwater inflows into the mine, subsequently draining the basalt. If these areas with lower thickness are known to the authors, they should address the potential consequences for the proposed mine. There are no model runs available with such a scenario. ATTACHMENT B</p>		The potential effects of fracturing are discussed in detail in Section 9.5 of the final EIS. The base case model conservatively assumes that the fractured zone extends into the base of the Basalt by several 10s of metres in parts of the mine area. Local experience suggests that fracturing of Basalt is unlikely due to the depth of the seam and the geology of the Project area. Both scenarios are presented in the final EIS.
22.51	Appendices A4-7a-c "Groundwater Report" (Predictive modelling - subsidence)	Figures 3-4 and 3-5 of the GWR show two cross sections with the deformation zones used in the model. Both Figure 3-4 (Row 96) and Figure 3-5 (Model column 123) show that the upper fractured zone (yellow) extends into the basalt (blue). The hydraulic parameters assigned to the zone are much lower than the original basalt properties, which makes the basalt less permeable instead of more permeable due to fractures. The fact that the deformation zones extend into the basalt has not been discussed by the authors, despite their knowledge of the higher than predicted inflows at the Crinum mine. ATTACHMENT B	A model run should be created to include the fracturing of the basalt and the subsequent reduction in groundwater levels within the basalt aquifer.	As noted above, the base case model conservatively assumes that the fractured zone extends into the base of the Basalt by several 10s of metres in parts of the mine area. Local experience suggests that fracturing of Basalt is unlikely due to the depth of the seam and the geology of the Project area. Both scenarios are presented in the final EIS.
22.52	Chapter 9 - Groundwater (General)	Conclusions - Based on the review of the data and reports provided for the EIS, WSA concludes that both the conceptual model and the numerical model do not show a level of detail or accuracy that is required for assessing the impacts of the mining operations on the environment and on existing land users. ATTACHMENT B	It is recommended that the conceptual model be re-developed and described in more detail and re-visualised. This includes more comprehensive field investigations and data collections. Based on the new or updated conceptual model, the numerical model should be reassessed and the calculated impacts re-calculated and discussed.	As previously noted, the hydrogeological conceptual model and numerical model have been updated. Additional groundwater level, aquifer properties and water quality data have been collected in May 2013. Please refer to the final EIS.
22.53	Chapter 9 - Groundwater (General)	The Terms of Reference have not been met in many of the groundwater areas reviewed. ATTACHMENT B		As previously noted, the hydrogeological conceptual model and numerical model have been updated. Additional groundwater level, aquifer properties and water quality data have been collected in May 2013. Please refer to the final EIS.

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22.54	Chapter 1 - Introduction	<p>Transport Corridor - The proposed corridor is an essential component of the project but is not assessed in the EIS. The assessment of environmental impacts and management will be incomplete as a result. This situation is directly comparable with the Elimatta Coal Project EIS. There the transport corridor is not the subject of any mining lease application and is not mentioned in the ToR. The Elimatta Draft EIS, when initially submitted to EHP, did not deal with the transport corridor. However, EHP insisted that the corridor be included in the Draft EIS even though the terms of reference remained unaltered. This had to be done before the EIS was released for public comment. ATTACHMENT C</p>	<p>It is submitted that the draft EIS must include the transport corridor.</p>	<p>SCC has consulted with the Department of Environment and Heritage Protection (EHP) with regards to the appropriate assessment of the Project and its components, including the separate approval processes for the mine and infrastructure corridor/train load out in the form of an EM Plan.</p> <p>Any potential cumulative effects resulting from the Project mine and infrastructure corridor/train load out will form part of the latter's assessment and approval decision, as appropriate, as well as its mitigation proposals.</p>
22.55	Chapter 5 - Land	<p>Productivity of the Land - The Draft EIS fails to recognize the productivity of this land. At Springton the Grains Research and Development Corporation has conducted wheat varietal trials for at least the last 20 years. Official data from these trials is available back to 2004 when reporting began through National Varietal Trials (NVT). Agricultural Consultant at Springton Graham Spackman states: (refer to table in Attachment C - Productivity of Land) ATTACHMENT C</p>		<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity. We cannot comment on decision made regarding land management practices at other properties such as Gordon Downs.</p> <p>The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsidised land.</p> <p>With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p> <p>SCC will be seeking to work with landholders on an individual basis to develop surface management plans for each paddock. These plans will outline what the impacts of mining will be and how they are to be managed, including any considerations in the lead up to mining taking place.</p>
22.56	Chapter 5 - Land	<p>Current Land Use - We endorse the LRAMS report is saying that : a) There is no detail of our existing land use in the Draft EIS. It is impossible to assess the impacts of the proposed subsidence without first describing the existing land use including management and use of cross-country flows. ATTACHMENT C</p>		<p>Land use is described within the EIS in Chapter 5 - Land.</p>
22.57	Chapter 5 - Land	<p>b) Crop production is practised on about 75% of the project land. We have progressively invested in and adopted profitable and sustainable controlled-traffic zero-till farming with big wide machinery where soil conservation is achieved through well-planned and maintained broad based contour banks and retention of stubble as ground cover. This is a</p>		<p>As outlined in the added agricultural analysis in the Land Chapter of the EIS, impacts to farming systems are anticipated to be minimal. Minimum or zero till farming can still be undertaken post subsidence. Re-contouring and levelling of paddocks is akin to laser levelling which typically occurs on 4-5 year cycles. As such, it is not anticipated that subsidence will significantly impact farming practices.</p>

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		<p>low-intensity erosion control system, appropriate to present land use. Many cropping paddocks have had significant investment in drainage works, including contour banks, waterways, levee banks, laser and other levelling works, completed in them over the years to help reduce erosion and facilitate efficient disposal of runoff or overland flow water. ATTACHMENT C</p>		
22.58	Chapter 5 - Land	c) irrigation is well-established on a small proportion of the project land, based on water harvesting from Springsure Creek and capture of overland flow. ATTACHMENT C		<p>This has been acknowledged in the relevant sections of the EIS. Post subsidence the land will still be able to be irrigated, however more efficient forms of irrigation will be utilised, (e.g. pivot irrigation). This will also result in more efficient water usage.</p>
22.59	Chapter 5 - Land	d) the proposed subsidence would have devastating consequences for these well-established farming systems but the Draft EIS does not even attempt to address those issues. The majority of what is currently cropping land would be rendered permanently incapable of cropping. ATTACHMENT C		<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity. With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p> <p>Note that the following projects have investigated the effects of mining on agriculture:</p> <p>CARP Project No: C8018 EFFECT OF LONGWALL MINE SUBSIDENCE ON PLANT PRODUCTION ON CROPPING LAND D Hinchliffe, P Matthew and U Pillai-McGarry (School of Agronomy and Horticulture, University of Queensland, Gatton); H.B. So (School of Land and Food Sciences, University of Queensland, St Lucia); and D. Mulligan (Centre for Mined Land Rehabilitation, University of Queensland, St Lucia). This project studied the impact of Long Wall Mining Subsidence on wheat and soybean production at the Kestrel Mine, Emerald, QLD. They measured germination and yield for winter wheat and germination for soybeans. Soil and moisture characteristics were also measured. The impact of subsidence on wheat germination was minimal, however, germinations were slightly higher on the pillar sites than both the subsided and unsubsidied sites. There was no significant impact on wheat yield, soybean germination or on any of the soil or moisture characteristics.</p> <p>ACARP PROJECT C15013 MONITORING THE EFFECT OF LONGWALL MINE SUBSIDENCE ON NATIVE VEGETATION AND AGRICULTURAL ENVIRONMENTS Paul Frazier, Ross Jenkins, Tienneke Trotter; ECOLOGICAL AUSTRALIA Two landscapes were investigated using a whole of mine site technique including remote sensing, ground survey and traditional agricultural monitoring methods. The landscapes were at the Kestrel site in Emerald, QLD including a forage sorghum and an improved pasture and at Beltana in the Hunter Valley, NSW including an irrigated lucerne pasture and an unimproved native pasture. At each site a</p>

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				<p>stratified sampling procedure was undertaken to ensure samples from non-mining, pillar, transition and longwall panel centre zones. Samples were collected via:</p> <ul style="list-style-type: none"> • Vegetative field sampling (quadrat based for biomass, plant species, percent vegetative cover, leaf area index, plant height) • Soil sampling (cores and pits for pH, EC, % moisture) • Proximal sensors (EM38 for topsoil electrical conductivity, Crop Circle for NDVI) • Satellite and airborne imagery (Airborne video, QuickBird and SPOT 5) <p>The soil sampling taken at the start of the project at Beltana and Kestrel showed minimal variation across all sites. For the sites already mined there were no measureable effects of Long Wall Mining Subsidence in the soil properties. There was no significant difference in the available biomass, measured by dry weight between the subsidence zones in the lucerne or native vegetation at Beltana. There was no significant difference in biomass between the mined and unmined areas in the sorghum crop.</p> <p>The remote sensing data collected at the Beltana site, used to assess change between longwall zones pre and post mining in the lucerne and native vegetation indicated there were no trends that indicate Long Wall Mining Subsidence had an impact on the vegetative biomass. Remote sensing images were used to determine changes between Kestrel areas which had been mined compared with areas not undermined. There were significant differences between the longwall or contour zones, however, there were no temporal trends that indicate that Long Wall Mining Subsidence had an impact on the vegetative biomass. Throughout the duration of this project, no significant effect on agricultural production was found at either site.</p>
22.61	Chapter 5 - Land	f) To whatever extent cropping of some sort could continue on the subsided land, much of the areas still capable of cropping would be fragmented into uneconomic and physically unworkable patches where our existing broadacre farming systems with wide machinery could not be used. Furthermore the effectiveness of our pre-mining erosion control and drainage measures would be destroyed - in fact if left in place those contour banks would be running the wrong way and would cause erosion rather than prevent it. All-new, high-intensity systems would be required to control erosion and manage surface water. ATTACHMENT C		As noted above SCC is committed to maintaining agricultural productivity and will be requesting to be conditioned on this. Research outlined above indicated that agriculture and underground longwall mining can co-exist.
22.62	Chapter 5 - Land	g) As subsidence progressed, it would interfere with the operation of existing contour banks and other erosion or water control measures on land adjoining the subsidence. ATTACHMENT C		This will be taken into consideration when developing the Subsidence Management Plans which will ensure that the integrity of the soil surface and landscape characteristics are maintained. Management plans to be developed with affected landholders on a longwall panel by longwall panel and paddock by paddock basis will include measures for managing residual subsidence to minimise the impacts on agricultural practices.
22.63	Chapter 8 - Surface Water	h) The draft EIS also fails to describe existing cross-country flows and hydrology - it must be assumed that with longwall panels running		A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and

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		approximately parallel to the water flows, water will be diverted away from our dams and storages and in any case the catchments will be broken up and fragmented so that less water is captured. ATTACHMENT C		<p>ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously. Further staged assessment will be undertaken as the project progresses to analyse in finer detail the effects of any likely changes to overland flow and ponding regimes and subsequent effects on individual properties. This will include likely effects on current soil management (including sediment and erosion controls), irrigation and general agricultural practises.</p> <p>Further liaison/consultation will be undertaken with individual affected property owners to further understand and mitigate likely effects on current agricultural practises. A subsidence management plan and an agricultural management plan will be developed as a later stage.</p> <p>Impacts to stream flows are evident within and downstream of the subsidence area. Impacts are quantified within Chapter 8 of the final EIS.</p>
22.64	General	Current Land Use ATTACHMENT C	It is submitted that the Draft EIS must be revised to properly address existing land use, land, soils and surface hydrology in accordance with the defects identified by LRAMS.	The final EIS has been updated to adequately address all issues.
22.65	General	Current Land Use ATTACHMENT C	<p>2) it is submitted that the Draft EIS must be revised to properly address:</p> <p>a. existing land use, land, soils and surface hydrology in accordance with the defects identified by LRMS [refer Attachment A of submission]; and</p> <p>b. the impacts of proposed mining on all of the above, including the progressive impact and disruption to soil conservation and water management systems on as yet unsubsidised land at subsidence interface.</p>	The final EIS has been updated to adequately address all issues.
22.66	Chapter 3 - Description of Project	Position of Drift and Surface Works - The proponent's plans say the drift and surface works would be located at the far northern end of the mine. Even to a layman that location appears unrealistic, since it would require	The Chief Executive should investigate whether the present location of the drift and	The proposed location of the drift has not changed.

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		<p>mined coal to be conveyed underground as much as 14.5km from the southern end and at maximum cost.</p> <p>We consider the proponent as contrived this design so as to be able to say the surface works will be on land it owns, but with the intention of later amending its mining plan and environmental authority to a more realistic midway location, after initial approvals are obtained. ATTACHMENT C</p>	surface works is sustainable.	
22.67	Chapter 11 - Noise and Vibration	Noise - The Draft EIS section 11 discloses that the Springton would suffer excessive noise at night ATTACHMENT C	This must be a precondition of grant of an environmental authority that the Proponent has first reached agreement with the residents at Springton as to compliance with the noise conditions or alternative arrangements which are mutually agreeable.	The EIS states <i>"In the absence of noise mitigation, the night time noise criteria of 28 dB (A) is exceeded at the two closest sensitive receptors, Springton Homestead and Den-Lo Park Homestead"</i> . Mitigation measures proposed will ensure that noise levels are within required limits and meet criteria.
22.68	Chapter 9 - Groundwater	<p>Groundwater - The report of Waste Solutions Australia Pty Ltd (WSA) demonstrates that the Draft EIS cannot be relied upon as to groundwater impacts, and that many existing water bores on and around the project area would potentially be adversely affected by the mining. The WSA report demonstrates the Draft EIS fails to comply with about 14 requirements of the Terms of Reference. The report shows comprehensively that:</p> <p>a) The groundwater models do have the required level of accuracy or detail for assessing the impacts on groundwater, the environment or existing water users. ATTACHMENT C</p>		As previously noted, the hydrogeological conceptual model and numerical model have been updated. Additional groundwater level, aquifer properties and water quality data have been collected in May 2013. Please refer to the final EIS.
22.69	Chapter 9 - Groundwater	b) As to subsidence, the impacts from fracturing of the basalt aquifer have not been investigated. ATTACHMENT C		Modelling conservatively assumes cracking of the Basalt. Please refer to Section 9.5.5.1 and Section 9.5.5.2 of the final EIS.
22.71	Chapter 9 - Groundwater	c) the conceptual model and the numerical model must both be re-developed and the impacts re-calculated. ATTACHMENT C		The hydrogeological conceptual model and numerical model have been updated. Please refer to the final EIS.
22.72	Chapter 9 - Groundwater	Groundwater - General ATTACHMENT C	That the groundwater studies must be completely revised so as to comply with the Terms of Reference, in accordance with the recommendation of Waste Solutions Australia Pty Ltd.	The hydrogeological conceptual model and numerical model have been updated. Please refer to the final EIS.

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22.73	Chapter 9 - Groundwater	As is demonstrated in the Land Court's Wandoan Coal decision - Xstrata an others v Friends of the Earht and Others (2012 QLC 013), there is an unfortunate dichotomy in the legislative framework governing environmental approval of mining which leaves landowners exposed to loss of, or damage to their ground water supplies ATTACHMENT C	It is submitted that, as in the Wandoan Coal case, it must be a prerequisite to grant of an environmental authority that the Proponent has first entered in mutually satisfactory make-good agreements with all owners of potentially-affected water bores.	Please refer to Chapter 9, Section 9.6. The Groundwater Management Plan will be developed in consultation with relevant regulatory authorities and landholders.

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23.1	Chapter 5 - Land	<p>"Potential impacts associated with lighting include disturbance to nocturnal fauna, light spill onto surrounding roads that has the potential to distract passing motorists, disturbance to sleep patterns of nearby residents and impacts to visual amenity caused by the illumination of the night sky"</p> <p>lighting impacts on the rural residences in the area - Some existing mines in the Emerald area utilise high visibility flood lighting, which causes considerable lighting nuisance to rural residences at night time. The high visibility flood lighting may be necessary for open cut operations, but there seems minimal need for underground operations to utilise high visibility flood lighting. There may be some need for surface lighting for an underground mine in relation to workshop or coal wash plants, but high visibility flood lighting seems largely unnecessary for the operation of these facilities at night time. Surface construction work is usually undertaken on day shift only and complex surface operational work (e.g. using cranes etc) is usually only undertaken on day shift also.</p>	<p>I would ask that the Chief Executive includes methods to manage lighting impacts from the proposed Springsure Creek Project when writing the EIS and Environmental Authority conditions. The proposed Springsure Creek Project is an underground mine with a coal wash plant and associated workshop facilities. I would ask that lighting for the project is kept to a minimum and that the high visibility flood lighting is avoided due to the lack of need for such lighting (i.e. underground mine and complex surface works usually undertaken on day shift). If flood lighting is absolutely necessary in some areas, I would ask that the Springsure Creek Project only utilises the low pressure sodium vapour lighting (orange lighting), which results in considerably less light nuisance than the conventional high visibility flood lighting. Lighting direction and shielding may also need to be investigated to control lighting spill to areas outside the mine footprint.</p>	<p>There are three main types of lighting to be installed onsite, within the Mine Infrastructure Area (MIA). These are stockpile lighting, street lighting (for internal roads) and gantry/walkway lighting. There will also be specialised lighting of the emergency area, however this will only be used as required. The requirement for lighting is primarily driven by safety to ensure potential hazards onsite are visible.</p> <p>Although it is anticipated that some homesteads will have a direct line of site to the MIA the impacts from lighting are not anticipated to be significant due to distances between MIA and nearest homesteads. Where possible lighting assisted with the MIA will be directed to the area required minimising light spill into the surrounding environment.</p> <p>As stated in Section 5.7.8 (Chapter 5 of the EIS), all lighting will be designed, installed, operated and maintained in accordance with Australian Standard 4282:1997. This standard is intended to control the obtrusive effects of outdoor lighting. Lighting design in accordance with this standard will be undertaken at the detailed design stage, once an Environmental Authority is granted.</p>

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s.73 irrelevant information

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24.1	Chapter 4 - Climate	<p>4.3.1 Storms "The prevalence of severe thunderstorms within the project area is expected to be low because severe storms are generally confined to small localized areas along the coast."</p> <p>4.3.3 Floods "The potential for flooding within the project area is considered relatively low"</p> <p>Table 4.5 Impacts and mitigation measures associated with Climate "Excessive rainfall - flooding is not expected to restrict access to the project area as local access roads will be upgraded to a higher level of flood immunity than currently exists"</p>		<p>The risk assessment has been based on the frequency and consequence of particular events. Although severe events are acknowledged to occur in the region, their relative frequency is significantly lower than many other regions throughout Queensland. Further the MIA will be constructed and sited to minimise impacts associated with severe storms. Further clarification has been made in the SEIS relating to the risk rating of severe events.</p> <p>In relation to flooding and excessive rainfall, assessment was made based on the smaller footprint of the Mine Infrastructure Area (MIA) area not the whole mining lease application area. Due to the positioning of the MIA it is considered impacts resulting from floods and excessive rainfall will be relatively low as the MIA has been sited above the 1:1000 ARI flood level.</p> <p>Local road upgrade design will be developed in consultation with key stakeholders, taking into account results from flood modelling studies to provide a higher level of flood immunity. Notwithstanding that, it is not intended to make local roads 'flood proof' and it is acknowledged that from time to time local roads will become inundated impacting access to the site.</p>
24.2	Chapter 9 - Groundwater	<p>9.6 Mitigation and Management Measures</p> <p>9.6.1 - Aquifer Cross Contamination</p> <p>9.6.2 - Control of Pollutants and Contaminants</p> <p>9.6.3 - Groundwater Dependant Ecosystems</p> <p>9.6.4 - Drawdown</p> <p>9.6.5 - Landholder Bores</p> <p>9.6.6 - Groundwater Monitoring Network</p>	<p>Our zero till farming system is totally reliant on the supply and quality of underground water for agricultural spraying activities. This is in addition to our domestic and stock watering requirements. Any changes to this water supply will gravely affect our farming operation and lifestyle.</p>	<p>The groundwater assessment completed for the project indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>SCC will install long-term groundwater monitors at a number of locations around the site to monitor impacts on the groundwater system as a result of mining activities. Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p> <p>Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater.</p>
24.3	Chapter 10 - Air Quality	<p>10.2.3.2 Sensitive Community Receptors "Sixteen sensitive receptors (homesteads) were identified, using aerial imagery and on ground assessment, as having potential to be impacted by the Project activities"</p>	<p>Incorrect Mapping of Sensitive Residential Receptors</p>	<p>The maps and tables have been updated to include all sensitive receptors, including dwellings on your property.</p>
24.4	Chapter 11 - Noise and Vibration	<p>11.3.2 Sensitive Community Receptors "Sensitive receptors were identified according to schedule 1 of the EP Noise. Based on this, sixteen sensitive receptors (all homesteads) were identified, using aerial imagery and on ground assessment, as having potential to be impacted by the Project"</p>	<p>Incorrect Mapping of Sensitive Residential Receptors</p>	<p>As noted above, the maps and tables have been updated to include all sensitive receptors, including dwellings on your property.</p>
24.5	Chapter 15 - Health and Safety	<p>15.2.1 - Potentially Affected Population "A number of residential homesteads have been identified as potential sensitive receptors within and immediately surrounding the Project area. The location of the Project in</p>	<p>Incorrect Mapping of Sensitive Residential Receptors</p>	<p>As noted above, the maps and tables have been updated to include all sensitive receptors, including dwellings on your property.</p>



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		relation to these potential receptors is presented in Table 15-1 and Figure 15-1."		
24.6	Chapter 17 - Hazard and Risk	17.4.1 - Sensitive Community Receptors "Fifteen homesteads occur within 16km of the main mine infrastructure area..."	Incorrect Mapping of Sensitive Residential Receptors	As noted above, the maps and tables have been updated to include all sensitive receptors, including dwellings on your property.
24.7	Chapter 18 - Draft EM Plan	18.5.2.2 - Sensitive Community Receptors Table 18-10 Sensitive receptor locations within wider Project area 18.5.3.3 -Potential Impacts on the environmental Value Table 18-17 Predicted construction phase noise levels at sensitive receptors 18. 5. 4.10 Monitoring "Ongoing groundwater monitoring will be undertaken throughout the life of the various Project phases. The locations to the bores assessed during the hydrocensus are provided in Table 18-32 on page 18-101" Table 18-18 18.5.6.2 - Landscape Character and Visual Amenity Figure 18-19 Homestead locations and features of the landscape	s.73 irrelevant information and two additional houses were not listed among the 16 sensitive receptors, despite being located within, the listed homestead area, we are concerned that we appear to have been ignored with regard to potential impacts. We are concerned that at this stage there has been no monitoring of our 4 bores around the homestead area and we do not appear to be included in the list of bores to be monitored.	As noted above, the maps and tables have been updated to include all sensitive receptors, including dwellings on your property. Subsequent to the EIS being prepared, additional groundwater quality and level data have been collected, and continue to be collected. The groundwater sampling program which has taken place to date has targeted a number of bores in the area associated with the Project. These bores and sampling location have been selected to provide a representation of the area for groundwater assessment and modelling. Additional groundwater data will be collected as part of an on-going assessment. The bores proposed to be monitored as part of the long-term monitoring are still being identified. As noted, we will be seeking to identify bores that provide a representation of the area.
24.8	Chapter 14 - Social Impacts	"While outlined in the draft SIMP these aim to minimize stress on property owners and demonstrate that agriculture and mining can successfully co-exist and..."		The proposed Springsure Creek Coal Mine Project requires an environmental authority from the Department of Environment and Heritage Protection (EHP) along with tenure from the Department of Natural Resources and Mines (DNRM). An environmental assessment is required by the Environmental Protection Act 1994 for an Environmental Authority to be granted. This can be managed through either the submission of an Environmental Management Plan or an Environmental Impact Assessment. For projects managed through an EM Plan it is only once the plan has been submitted, assessed by EHP and a draft Environmental Authority has been prepared that the public is provided with the opportunity to comment on the project. For the Springsure Creek Coal Mine Project a voluntary EIS has been prepared which provides the public with an opportunity to comment on the project at the EIS assessment stage as well as the draft Environmental Authority stage. The timeframes for assessment of an EIS, including the time provided to the public to make comment, are outlined in the Environmental Protection Act 1994. It is the intention of Springsure Creek Coal to continue to engage with directly and potentially affected parties and other stakeholders as the project progresses. The approval process followed is intended to provide the greatest opportunity for the public, including landholders, to provide comment on the proposal and influence the assessment undertaken by State Government. Springsure Creek Coal is committed to continuing to work with directly affected and nearby

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				landholders and other stakeholders as the project develops.
24.9	Executive Summary	<p>E3.2 Project Benefits and Opportunities Table E-2 Benefits and Opportunities of the Springsure Creek Project</p> <p><i>"Develop and demonstrate the proposed (but yet to be defined) Co-existence Performance Standards in Priority Agricultural Areas (PAAs) under the Central Qld Regional Plan Maintain agricultural production while mining under the supervision of Agricultural Coexistence Research Committee. Investment in agricultural businesses and research that will support the State Government's economic pillars and the 30 year agricultural target of doubling food production across Qld. Maintain and improve cropping land before during and after subsidence associated with the Project ensuring no permanent degradation of food production capacity."</i></p>	<p>The claim that cropping land can be maintained and improved before, during and after subsidence is not backed by any evidence to date. Experience in the Gordon Downs area north of Emerald would indicate that this land is relegated to pasture status not cropping land.</p>	<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity. We cannot comment on decision made regarding land management practices at other properties such as Gordon Downs.</p> <p>The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided land.</p> <p>With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p> <p>SCC will be seeking to work with landholders on an individual basis to develop surface management plans for each paddock. These plans will outline what the impacts of mining will be and how they are to be managed, including any considerations in the lead up to mining taking place.</p>

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s.73 irrelevant information

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25.01	Chapter 10 - Air Quality	10.2.3.2 Sensitive Community Receptors "Sixteen sensitive receptors (homesteads) were identified, using aerial imagery and on ground assessment, as having potential to be impacted by the Project activities"	s.73 irrelevant information	The maps and tables have been updated to include all sensitive receptors, including all dwellings on your property.
25.02	Chapter 11 - Noise and Vibration	11.3.2 Sensitive Community Receptors "Sensitive receptors were identified according to schedule 1 of the EP Noise. Based on this, sixteen sensitive receptors (all homesteads) were identified, using aerial imagery and on ground assessment, as having potential to be impacted by the Project"	s.73 irrelevant information	As noted above, the maps and tables have been updated to include all sensitive receptors, including all dwellings on your property.
25.03	Chapter 15 - Health and Safety	15.2.1 – Potentially Affected Population "A number of residential homesteads have been identified as potential sensitive receptors within and immediately surrounding the Project area. The location of the Project in relation to these potential receptors is presented in Table 15-1 and Figure 15-1."	s.73 irrelevant information	As noted above, the maps and tables have been updated to include all sensitive receptors, including all dwellings on your property.
25.04	Chapter 18 - Draft EM Plan	18.5.2.2 – Sensitive Community Receptors Table 18-10 Sensitive receptor locations within wider Project area 18.5.3.3 – Potential Impacts on the environmental Value 18.5.6.2 – Landscape Character and Visual Amenity Figure 18-19 Homestead locations and features of the landscape	s.73 irrelevant information	As noted above, the maps and tables have been updated to include all sensitive receptors, including all dwellings on your property.
25.05	Chapter 9 - Groundwater	9.6.5 Landholder Bores Any registered landholder bores located in areas of significant drawdown may need to be deepened or replaced. In the event that groundwater bores are damaged due to mining activities, SCC will maintain supply of groundwater as agreed with the landholder.	s.73 irrelevant information This water is used for livestock production and domestic use. Our concern is that aquifer levels may drop causing our water supply to dry up. There is no certainty that this won't happen. We request that our water supply is monitored and that a landholder agreement is in place prior to any mining activities commencing.	Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low. Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity. The groundwater sampling program which has taken place to date has targeted a number of bores in the area associated with the Project. These bores and sampling location have been selected to provide a representation of the area for groundwater assessment and modelling. Additional groundwater data will be collected as part of an on-going assessment. The bores proposed to be monitored as part of the long-term monitoring are still being identified. As noted, we will be seeking to identify bores that provide a representation of the area. The areas closest to the mine site are being targeted as any impact will become noticeable in these bores first.



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				Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.
25.06	Chapter 9 - Groundwater	9.3.8 Existing Groundwater Users Groundwater within and surrounding the Project is used for domestic, agricultural and livestock supply. The total amount of water used in the area is uncertain. The majority of the properties visited rely on groundwater as a major water source as there is no municipal water infrastructure.	s.73 irrelevant information This water is used for livestock production and domestic use. Our concern is that aquifer levels may drop causing our water supply to dry up. There is no certainty that this won't happen. We request that our water supply is monitored and that a landholder agreement is in place prior to any mining activities commencing.	As noted above groundwater assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity. Bores proposed to be monitored as part of the long-term monitoring are still being identified and we will be seeking to identify bores that provide a representation of the area. Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.
25.07	Chapter 6 - Traffic and Transportation	6.5 - Traffic Impact Assessment 6.5.2 – Construction Phase Changes to AADT "However, as Glenorina road is a site access road, it will experience an AADT increase of approx. 84%, primarily associated with an increase in private vehicle trips (light vehicles) due to staff accessing the site. Heavy goods vehicle traffic on Glenorina road is also predicted to increase by 62% due to materials and machinery being transported to and from site."	We believe that Glenorina Road is not capable of sustaining this increase in traffic volume without major damage occurring. This road is vital to the transport of our produce off farm, and needs to be upgraded prior to any increase in traffic. An increase in traffic to this percentage poses a safety hazard if the road is not upgraded.	Parts of the Glenorina Road, Wyntoon Road and Kilmore Road required to access the mine site will be upgraded to cater for the expected increase in traffic. Stakeholders including the Central Highlands Regional Council, Department of Transport and Main Roads, and the local School Bus Committee will be consulted in the design of the upgrade.
25.08	Chapter 6 - Traffic and Transportation	6.3.5 Public Transport 6.3.5.1 School Bus Routes ...There are approximately eight school bus stops along the Project access route from the Gregory Highway turnoff. These bus stops are identified by signage prior to the stop. All bus stops are informal gravel insets off the main roadway.	s.73 irrelevant information s.73 irrelevant information There is no gravel inset at our bus stop. During wet weather the bus is forced to park on the bitumen roadway and traffic from behind veers into oncoming traffic. This is a safety hazard should traffic increase due to mine operations and the bus stop would need to be improved.	SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.
25.09	Chapter 6 - Traffic and Transportation	6.3.10 Waterway Crossings There are nine formal marked floodways and two bridges along the access route between the Glenorina Road turnoff from the Gregory Highway to the Project site entrance.	During the wet season Glenorina Road is often closed due to creeks and local flooding over roadways. On our property we have noted rainfall of up to 200ml over a 10 hour period. Roadways become impassable and sometimes remain closed for days. We do not believe it is reasonable to upgrade Glenorina Road to an all weather access road as was suggested at the Gindie community consultation meeting held on Feb 25th 2013.	Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.
25.10	Chapter 14 - Social Impacts	14.2.2 Public Consultation SCC has consulted with landowners in the vicinity of the	We are listed as an affected landowner in the EIS however there has been no attempt by any Springsure	Up until the public notification of the EIS consultation was focussed on discussions with landholders impacted by previous exploration drilling activity where

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		<p>Project area and the CHRC on a periodic basis since exploration of the Project area commenced in 2009. A full-time field liaison officer, based in Emerald, was appointed in late 2011.</p> <p>...Interviews with property owners were limited to Den-Lo Park, as other landowners had requested group meetings and compensation for those meetings that was considered excessive.</p>	<p>Creek Project officers to consult with us. We were notified by a neighbour that our property was included as an affected landowner in the EIS and through our own efforts obtained a copy of the EIS. We have not requested compensation for consultation and would have welcomed a meeting to discuss the impact of Springsure Creek Coal project on our farming operations.</p>	<p>rehabilitation had not been completed. Subsequent to this directly affected landholder engagement has continued, mainly on an individual basis through compensation discussions, restricted land identification and other EIS and Mining Lease related activities.</p> <p>A number of directly affected landholders attended a public information session in Springsure and many nearby landholders attended a similar session in Gindie. At these meetings, and subsequent to that, there has been an open invitation for any landholders, whether individually or in a group, to further discuss the project with representatives of Bandanna Energy and SCC, including our technical specialists. At that meeting you did indicate you were interested and provided email contact details. These details were used to extend an invitation for further discussions about the project. During the submission period to the EIS a number of landholders accepted the invitation to meet and discuss the project with representatives of Bandanna Energy and SCC and our technical specialists. These discussions have mainly focussed on monitoring of groundwater, air quality and noise. As a result some additional monitoring has taken place.</p> <p>In addition, during the preparation of the Supplementary EIS, direct contact has been made with all submitters, including directly affected and nearby landholders who made submissions, and an invitation to discuss the project, their submission to the EIS, and any other related issues, has been made. Further meetings and discussions have been held with a number of landholders regarding the project.</p> <p>SCC is committed to developing positive relationships within the local community and being open and transparent in all of our communications and discussions about the project. If at any time you wish to discuss the project, please contact Neil Dale or Julie Boucher.</p>

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s.73 irrelevant information

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26.1	Chapter 6 - Traffic and Transportation	<p>The report does not make any mention that Glenorina Rd is a major service road for the local Grain Industry. This traffic is seasonal and occurs June/July for the summer crops and October/November for the winter crop. The tonnages of grain transported on this road can be as much as 80,000 tonnes per year. This traffic would be generally road train and AB triple trailer configurations. No consideration was made of this fact.</p> <p>School Bus times incorrect Obviously, no effort was made to ascertain the times of the Gindie School bus run as the report says from 0730-0830 and 1430-1530. Actual times are from Gindie 0650-0800 and 1545-1655. Much closer to the shift change over times proposed. Figure 6-3 does not show all bus pick-up points. This puts the children of our region at greater risk both on the bus and waiting to be picked up.</p> <p>In the construction stage the project concludes that it will only impact with 1.6 heavy vehicle moves per day one way and 3.5 moves during operation. These figures seem very unrealistic for the following reasons. A quick search of similar projects on the internet reveals the following. The Grosvenor Project at Moranbah involves the construction of a 5 million tonne long wall mining operation commencing July 2012, and states the following key construction statistics.</p> <ul style="list-style-type: none"> • More than three million cubic metres of earthmoving • More than 800,000 cubic metres of fill • More than 3,000 tonnes of steel • More than 13,000 cubic metres of reinforced concrete; <p>These statistics sound very different to the impacts that Bandanna Energy are forecasting in their EIS Report. Table 6-7 Anticipated Construction Transport - Concrete 80m3 footings, Steel Portal 1575m2 and Table 6-9 Anticipated Operation Transport - Bolts and Mesh 250Tonne Approx.</p>		<p>SCC understands the road is a shared community asset and will endeavour to work with stakeholders, including landholders to manage any impacts.</p> <p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It should be noted this does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.</p> <p>SCC will work with stakeholders including the Central Highlands Regional Council, the Department of Transport and Main Roads, and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p> <p>SCC cannot comment on the traffic volumes for other projects. The anticipated traffic volumes within the EIS are particular to the Springsure Creek Project.</p>
26.2	Chapter 10 - Air Quality	<p>I came across Table 10-22 Upstream Emissions which states concrete construction is 60,000m3, bitumen for construction 190,000m3 and steel for construction 1575m3. Why are these figures not used in the transport report?</p>		<p>The figures used in the transport assessment differ from those in the Air Quality assessment primarily as the different assessments require different unit measurements. The traffic assessment is undertaken using volumes in tonnes, whereas the air quality assessment is undertaken using cubic metres. In addition, volumes in the traffic assessment have been split into construction and operation, and from there into further categories (material for road construction, internal and external). The carrying capacity of vehicles also influences the assessment of the number of vehicle movements.</p>
26.3	Chapter 8 - Surface Water	<p>The EIS states that additional water (1247ML per annum) is required to drought proof the project and will be purchased from existing allocation on the open market. The water will be sourced from the Fairbairn Dam directly or</p>		<p>The pipeline and pump station required to provide water to the Project will be assessed under a separate approvals process. Wording to clearly identify this has been provided in the EIS and the commencement of each chapter.</p>

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	<p>via the Nogoia/Mackenzie river system. A 45km pipeline and pump station have been factored into the project. No mention of the construction of this project is considered in the transport section.</p>	
26.4 Chapter 6 - Traffic and Transportation	<p>The report also concludes that it will have minor impact on watercourses, yet proposes to flood proof Glenorina Road which will involve major infrastructure changes to Sandhurst and Minerva Creek to achieve this objective. Once again no detail was given and obviously these projects will also add more traffic and disruption during construction, which have not been assessed.</p> <p>Not considering the above issues the report states that traffic in construction phase on Glenorina Rd will have an 84% increase and in operating phase a 160% increase. Yet concludes it will only have a minor impact on the community.</p> <p>The majority of farming enterprises in this region have expanded over the years to own multiple properties to maintain efficiencies of scale. As a consequence, farm machinery is regularly escorted as a wide load along Glenorina Rd, Wyntoon Rd, Kilmore Rd, Oasis Rd, and Sullivan's Rd. This could be achieved safely when these roads were used purely for agricultural purposes. If this project is approved a dual access road would need to be created. If this did not occur farming enterprises would have to purchase duplicate machinery which would add a great cost to their current business. Finally the report assumes that traffic will only use Glenorina Rd via Gregory Hwy when Brisbane/Springsure origin traffic will be more inclined to travel three other possible routes being Arcturus Rd/Springton Rd, Milroy Downs Rd/Wyntoon Rd or Glenora Rd/Wyntoon Rd. All these roads require a traffic assessment report.</p> <p>In conclusion, the effect on Glenorina Rd and the whole local region will be major and will have major social and financial effects on the Gindie community.</p>	<p>As noted above, local roads to be used as access to the mine site will be upgraded. The construction methodology and timing of construction will be discussed with stakeholders as the design develops. Representatives from the local agricultural community and the school bus committee will be engaged regarding the construction methodology and timing. A community engagement plan for the construction will be developed to ensure information about the construction is communicated to locals.</p>
26.5 Chapter 10 - Air Quality	<p>Sixteen sensitive receptors (homesteads) were identified in the report. s.73 irrelevant information</p> <div style="border: 1px solid red; height: 40px; margin: 5px 0;"></div> <p>s.73 irrelevant information</p>	<p>Relevant tables and figures showing sensitive receptors have been updated, including the Kolane Homestead.</p>
26.6 Chapter 11 - Noise and Vibration	<p>Wind data is sourced from Springsure Post Office 50km from project and at the foot of Mt Zamia. Wind data for all studies were assumed under neutral weather conditions. Weather data is available in the local area from a series of Weather stations funded by CHRUPP. Local weather stations can be located at Oasis, Boongulla, Arcturus, and Bendee. The wind recorded at these locations</p>	<p>Bureau of Meteorology (BoM) weather station data has been used in the assessments. BoM data is used as it provides the most accurate data over a historic period of 80 years or more, with known consistent collection methods allowing for direct comparison between multiple stations. The climate models used provide estimates based on simulated data from baseline sources which</p>

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would be greater than Springsure as they are located in unprotected areas. Further research is required in this area utilising local data.

Sixteen sensitive receptors (homesteads) were identified in the report. s.73

s.73 irrelevant information

assess the probability of weather affecting the site based on historical weather patterns and predicted changes to the site. Assessment of dust, surface water, local climate, etc were undertaken using modelling approaches which used the above data (and data from Emerald) as inputs and modelled impacts over a range of scenarios. The assessment is considered robust and adequate for the purposes of the EIS assessments.

Notwithstanding the above, some discussions have been held with the Comet Sustainable Farming Association regarding access to climate data collected on a number of properties in the area. These discussions are ongoing.

As noted above, relevant tables and figures showing sensitive receptors have been updated, including the Kolane Homestead.

26.7 Chapter 5 - Land

The report concludes that 1.2- 2.3m of subsidence can be expected with the worst subsidence occurring in the central western portion, which includes the Springsure Creek floodplain. Although 67 longwall panels have been aligned in the same direction as the floodplain the underground service roads will run across the floodplain and will have minimal subsidence of .2m. This will result in a 1 – 2.1m high restriction across the total floodplain and will act as a dam causing major pondage. The other 14 panels will destroy the existing contour bank drainage infrastructure.

The Subsidence Report did not address the downstream impacts to the Springton Irrigation System. It also did not address the effects on dry land farming country and how it could be mitigated.

Detail regarding the downstream impacts resulting for subsidence is included in Chapter 8 - Surface Water. Within Chapter 8 it states that "*longwall mining will result in the surface depression of between 1.2 m and 2.3 m depending on seam thickness and depth below ground. These surface depressions can cause surface water to pond which can lead to a reduction in downstream flows, increasing sedimentation and creating permanent pools that may adversely affect vegetation. Ponding volumes are predicted to reduce over time as stream beds reach equilibrium through natural erosion and sedimentation processes. The extent of ponding post subsidence is not anticipated to be significantly larger than what currently occurs. Further, ponding estimates are based on **unmitigated impacts.***"

Mitigation and management measures to reduce downstream impacts are outlined in Section 8.7.

It is recognised that the contour bank system will need to be re-instated to suit the new landform.

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School Bus Committee

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27.1	Chapter 6 - Traffic and Transportation	<p>6.3.1.5 Milroy Downs Road</p> <ul style="list-style-type: none"> The road is approximately 7.5 m wide and partly sealed. <p>There is no part of Milroy Downs Road that is partially sealed. There are 3 concrete waterways and one section of bitumen at another waterway that is less than 100 metres long, however this bitumen is significantly damaged by continued rain events. Milroy Downs Road is an unsealed road. The school bus has, on occasions, used this road to access the bus run, and this road is also used daily by students travelling to their bus stop. Milroy Downs Road suffers significant damage during rain events, and requires a high level of maintenance to keep it at a standard that would make it useable as an all-weather road.</p> <p>Secondly, when traffic access along Glenorina Road is cut due to localised flooding that can occur at a number of waterways, Milroy Downs Road is used by vehicles as an alternate access route to Wyntoon Road. This additional traffic can cause further damage to the road.</p> <p>Table 6-1 Anticipated transport routes during construction and operation of the Project includes Milroy Downs Road as a route that will be used by mine vehicles. However, in the Executive Summary E4.3 Traffic and Transport, Milroy Downs Road is not listed as an access route.</p> <p>Clarification is needed in regards to the intended use of Milroy Downs Road during the construction and operation of the Project.</p> <p>The long term condition of the road needs to be considered and addressed in the EIS to ensure that use by mine vehicles, regardless of size, does not damage the road making it difficult or impossible for families to safely access the school bus stop.</p>		<p>The EIS has been updated to note that Milroy Downs Road is unsealed.</p> <p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It should be noted this does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.</p> <p>SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
27.1	Chapter 6 - Traffic and Transportation	<ul style="list-style-type: none"> Local sealed and unsealed roads - School start and end times do not correspond with the start and end of mine shifts and the volumes of goods deliveries are anticipated to be low and spread throughout the day. <p>As the information given in section 6.3.5.1 is incorrect, and mine shift times are not yet finalised, it is not possible to accurately state that "the Project will not impact on school buses on local roads".</p>		<p>As noted above, SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will include, among other things, initiatives to best manage any potential conflicts between school buses and mine related traffic. This plan will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
27.2	Chapter 6 - Traffic and Transportation	<p>6.3.5.1 School Bus Routes</p> <ul style="list-style-type: none"> The Gregory Highway is the main route for school buses between Springsure and Emerald and is used by Emerald Coaches for senior secondary school students who study in Emerald. This is an incorrect fact. Senior secondary school students form only a part of the students using this bus route. Students using this bus route are 	<p>All Bus Committees and the Bus Contractor responsible for this route should be contacted to provide accurate information regarding the</p>	<p>Initial contact has been made with the school bus committee. It is the intention of SCC that the committee be consulted in the design of the local road upgrades to ensure all road users are appropriately catered for in the design.</p>

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		<p>transported to Gindie State School, Emerald Christian College, Marist College, Emerald State High School and Denison State School. Due to the number of students requiring transport, and the number of stops needed, students are transported into Emerald on one bus originating from Springsure, and another bus originating on Glenorina Road.</p> <p>A map indicating existing bus stops between Gindie and the workers camp has not been included in this Statement, nor has any information regarding the condition of the stops, existing signage, or upgrades required in order to make this route safe. This section of road is used by more than one bus run.</p>	stops made by each bus run on all roads within the impacted area.	
27.3	Chapter 6 - Traffic and Transportation	<p>A school bus route operates on Glenorina Road and part of Wyntoon Road. It is assumed that buses on this route collect students for Gindie State School. This is an inaccurate assumption. This bus route collects students for many different schools and whilst some students on the P750 bus run are dropped at Gindie State School, other students are part of the P751 bus run and continue on the bus to schools in the Emerald area. The bus also continues making pick-ups at bus stops on the Gregory Highway between Gindie and Emerald.</p>	Relevant Committees should be contacted to confirm accurate use of roads by school buses.	Initial contact has been made with the school bus committee. It is the intention of SCC that the committee be consulted in the design of the local road upgrades to ensure all road users are appropriately catered for in the design.
27.4	Chapter 6 - Traffic and Transportation	<ul style="list-style-type: none"> School buses generally operate from 7:30am to 8:30 am and 2:30pm to 3:30pm. <p>Due to the long distances children are required to travel to and from school, and the need for some students to transfer from one bus run to another to reach their destination, these timeframes are insufficient and completely incorrect.</p>	Relevant Committees should be contacted to confirm accurate use of roads by school buses.	Initial contact has been made with the school bus committee. It is the intention of SCC that the committee be consulted in the design of the local road upgrades to ensure all road users are appropriately catered for in the design.
27.5	Chapter 6 - Traffic and Transportation	<ul style="list-style-type: none"> There are approximately eight school bus stops along the Project access route from the Gregory Highway turnoff. These bus stops are identified by signage prior to the stop. <p>Bus stops are not identifiable by signage in all instances. Only some stops have signage, and signage is sometimes not provided in both directions of travel.</p>	A detailed study of bus stops should be carried out in order to ascertain what upgrades would be needed at each bus stop to ensure the safety of everyone travelling along these roads.	SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.
27.6	Chapter 6 - Traffic and Transportation	<ul style="list-style-type: none"> All bus stops are informal gravel insets off the main roadway. 	This statement is incorrect. Some bus stops have no gravel insets and the bus pulls up on the bitumen roadway. The gravel at most stops is not maintained and therefore even after a small amount of rain, the bus is forced to pull up on the bitumen roadway, with traffic needing to cross onto the other side of the road to go around it.	As noted above, SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will include, among other things, initiatives to best manage any potential conflicts between school buses and mine related traffic. This plan will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.



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27.7	Chapter 6 - Traffic and Transportation	<p>Local bus stops and floodways</p> <p>The locations of bus stops indicated on this map are not complete. There is a bus stop at the Milroy Downs Glenorina Wyntoon Road intersection that has not been marked on this map. Due to the sharp curve in the road and the high vegetation that grows on this corner, visibility is very poor for traffic heading in any direction at this corner. Local residents are aware that this is an unsafe corner and that extra care is needed. There is no formal gravel inset at this intersection for the bus to pull safely off the roadway, and this is already a concern during periods of increased traffic flow, for example, when road trains are transporting grain or cotton modules during harvesting. Likewise, the increase of heavy vehicles during the construction and operation of the Mine will increase the risk of traffic incidents occurring at this intersection</p>	<p>Firstly, the local bus committee should be consulted to ensure that information on bus stops is correct. Secondly, more levity needs to be given to the possibility of traffic incidents occurring at this intersection and any ways of reducing the risk.</p>	<p>As noted above, SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will include, among other things, initiatives to best manage any potential conflicts between school buses and mine related traffic. This plan will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
27.8	Chapter 6 - Traffic and Transportation	<p>6.7.1.5 School buses ...Heavy vehicle movements will not be scheduled during school bus pick-up or drop-off times.</p>	<p>Springsure Creek Coal Mine Project will need to obtain correct information before they can state that scheduling of heavy vehicle movements does not coincide with bus run timing.</p>	<p>As noted above, SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will include, among other things, initiatives to best manage any potential conflicts between school buses and mine related traffic. This plan will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
27.9	Chapter 6 - Traffic and Transportation	<p>Potential impacts and risk: Impacts associated with school bus activity (page 6-34)</p> <ul style="list-style-type: none"> State Controlled Roads - The Project will not impact on school buses on local roads. <p>No information is provided in the Environmental Impact Statement regarding the bus stops used by school buses on State Controlled Roads from the workers camp to the turn-off onto Glenorina Road. Therefore it is unknown whether the Project will have an impact on school buses on local roads.</p>		<p>Information regarding bus stops on the Gregory Highway has been provided by the Department of Transport and Main Roads. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users and as such will involve all stakeholders in identifying any potential improvements required to the Gregory Highway as a result of the project.</p>



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Submission number	Topic	Comment	Recommendation / Suggestion	Response
28.1	Chapter 10 - Air Quality	10.2.3.2 Sensitive Community Receptors "Sixteen sensitive receptors (homesteads) were identified, using aerial imagery and on ground assessment, as having potential to be impacted by the Project activities"		Relevant tables and figures showing sensitive receptors have been updated, including residences on Shalimar.
28.2	Chapter 11 - Noise and Vibration	11.3.2 Sensitive Community Receptors "Sensitive receptors were identified according to schedule 1 of the EP Noise. Based on this, sixteen sensitive receptors (all homesteads) were identified, using aerial imagery and on ground assessment_ as having potential to be impacted by the Project"		As noted above, relevant tables and figures showing sensitive receptors have been updated, including residences on Shalimar.
28.4	Chapter 17 - Hazard and Risk	17.4.1-Sensitive Community Receptors "Fifteen homesteads occur within 16km of the main mine infrastructure area..."		As noted above, relevant tables and figures showing sensitive receptors have been updated, including residences on Shalimar.
28.5	Chapter 18 - Draft EM Plan	18.5.2.2- Sensitive Community Receptors Table 18-10 Sensitive receptor locations within wider Project area 18.5.3.3- Potential/Impacts on the environmental Value Table 18-17 Predicted construction phase noise levels at sensitive receptors Table 18-18 18.5.6.2- Landscape Character and Visual Amenity Figure 18-19 Homestead locations and features of the landscape	s.73 irrelevant information	As noted above, relevant tables and figures showing sensitive receptors have been updated, including residences on Shalimar.

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
29.1	Chapter 5 - Land	It appears that Bandanna is planning to use good quality farming-land for trial work, with the likely outcome being the permanent alienation of that land. There is a real opportunity for trial rehabilitation/ cropping on current (rehabilitated) sites of mining other than using Strategic Cropping Land in the Golden Triangle area.		<p>SCC is committed to the co-existence of mining and agriculture and maintaining or improving agricultural yields. We are seeking conditions of approval to include the requirement to prove co-existence while maintaining or improving agricultural productivity.</p> <p>Our commitment to co-existence is also demonstrated through the funding of an independent Agricultural Co-existence Research Committee established to guide co-existence research. This research is aimed at maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas (among other things).</p> <p>With longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), it will enable research to be applied and mining methods and agricultural practices to be refined to minimise impacts on agriculture and maximise agricultural yields. The benefits of this initial period of mining can then inform discussions with other landholders prior to mining activities taking place on other properties to optimise agricultural yields.</p>
29.2	Chapter 10 - Air Quality	There has been no comment about the changes in airflow caused by subsidence. Frost tends to settle in hollows and lower areas. Subsidence will have a major effect on where frost occurs and how air flows on mining affected land. This will therefore impact future cropping and pasture production in the vicinity of the mining, and is not dealt with or modelled in the EIS. A responsible approach would be for the Regulator to require such studies to be undertaken in order to understand how these issues can be dealt with.		Local terrain has been accounted for in the modelling approach used. In addition, the period of mining on Den-Lo Park will enable real-time monitoring of impacts and enable the development of appropriate responses should any be required to manage impacts.
29.3	Chapter 8 - Surface Water	Changes in direction and speed of overland flow caused by subsidence will increase erosion and sediment transfer into sensitive areas and waterways and eventually the Great Barrier Reef. Our observations are that subsidence causes massive long-term adjustments to occur to all drainage systems both above and below the mining areas. The EIS does not adequately address this issue.		<p>The impacts of subsidence on surface waters has been addressed throughout Chapter 8 of the EIS and within the technical reports appended. The EIS clearly outlines that the impacts to surface waters will not be significant and can be managed and mitigated. All practical measures will be taken to minimise the effects of erosion and sediment loss. A range of management plans will be developed to manage surface water and the potential impacts of surface water flows, including a Water Quality Management Plan, Erosion and Sediment Control Plan and Subsidence Management Plans.</p> <p>This statement related to unmitigated subsidence. It should be noted that flow rates at Springsure Creek remained relatively unchanged irrespective of flood event size. With mitigation of subsidence the impacts on downstream flows will be substantially reduced.</p>
29.4	Chapter 9 - Groundwater	There is no pre-mining assessment work done in the proposed mining area in relation to groundwater. How and where does the aquifer recharge? What is the water quality in each aquifer and how will they be effected by		Please refer to Chapter 9 - Groundwater and Appendices A4-7a (Groundwater Report) and A4-7b (Groundwater Sampling QA/QC Assessment and Laboratory Certificates). Chapter 9 along with the appendices comprise a pre-mining assessment of the

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
		cracking and goafing caused by mining? Experience shows that all aquifers above the coal seam will eventually be mixed together, so it is vital that this issue is strongly addressed in the EIS, which it is currently not.		potential impacts on groundwater. Subsequent to the baseline monitoring undertaken for the development of the EIS, addition monitoring and assessment has been undertaken. This work has been included in the final EIS.
29.5	Chapter 9 - Groundwater	Past evidence in other areas of mining show groundwater desktop modelling is totally unreliable. This is a major issue for the community and the Regulator must ensure reliable predictions are made and that all impacts to innocent neighbours are promptly and adequately addressed.		<p>The groundwater assessment undertaken has been done so in accordance with accepted industry practices. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low. Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>A long-term groundwater monitoring program will be implemented to monitor any changes in the groundwater regime. Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>
29.6	Chapter 14 - Social Impacts	Community consultation is severely lacking. Recently there has been substantial effort by Bandanna to push 'positive' news articles in the local media. This method of 'consultation' is no substitute for real engagement of effected and interested stakeholders. Real consultation is an exchange of ideas involving understanding and compromise, not a dictation of plans as occurred in this instance		<p>Springsure Creek Coal is committed to engaging with interested and affected stakeholders and is continuing to work with directly affected and nearby landholders, along with other stakeholders as the project develops.</p> <p>There have been a number of opportunities to engage in the project, including Public Information Sessions held in Emerald, Gindie and Springsure; via our project website; or through our 1800 number; or by post. Advertising in the CQ News and the Courier Mail along with direct contact with many stakeholders was used to inform people of opportunities to engage in the project.</p> <p>Throughout the EIS notification period, and the development of the Supplementary EIS we received a good response to opportunities to engage and were able to have meaningful conversations about the project with a wide range of stakeholders. These conversations are helping to shape the ongoing development of the project.</p> <p>We would welcome the opportunity to engage further with you regarding the project, and continue to keep you informed regarding project progress. Please contact us should you wish to discuss the project further. Enclosed is a contact card with details about how to contact us.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
30.1	Chapter 1 - Introduction	As neighbouring landowners we are directly affected landholders in many ways as stated in this submission. We have great concern that some facts and figures stated in the EIS are not correct. There are many local water bores not even listed and distances incorrect. s.73 irrelevant information s.73 irrelevant information - information One hopes that this lack of professionalism is not how things are dealt with in the future.		Relevant tables and figures showing sensitive receptors have been updated.
30.2	Chapter 8 - Surface Water	Uncertainty of underground water supply and quality due to underground activity from the mine site. All our water is supplied from one bore on our property. The main aboveground infrastructure of the proposed mine is metres from a major water course increasing the risk of contamination from offsite overland flow which runs directly through my farmland.		<p>Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low.</p> <p>Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>Should impacts occur, SCC will consult with landholders about relocating or deepening affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>
30.3	Chapter 6 - Traffic and Transportation	Increased daily road movements clashes with agriculture equipment transfer which occur regularly as we have other farming properties. Increase from workers after hours brings unwanted traffic crime and trespassing on property i.e. recreational pig hunters		<p>Discussions at the Gindie Public Information Session on 25 February 2013 highlighted the issue of moving agricultural equipment between properties, especially during times of harvesting and planting. At that meeting opportunities such as construction of pull-off areas at regular intervals along the road were raised. This option, along with others will be considered during the detailed design of local road upgrades.</p> <p>Ongoing consultation and road user management policies to be developed will ensure mine related traffic is aware of the likely presence of agricultural equipment and other road users, and will be required to comply with specified road user management practices. In addition, workforce behaviour policies will include a code of conduct along with restriction on access to private properties for any reason.</p>
30.4	Chapter 12 - Ecology	Disturbance to our natural recurring wildlife due to increase activity and noise. We have koalas residing in our garden most of the year along with many birds, ant eaters, kangaroos and wallabys to mention a few.		<p>The main source of noise from the project will be generated from the mine infrastructure area (MIA). The MIA is located at least 300m away from the nearest fauna habitat. The noise assessment notes in Table 11-8 that due to the low expected noise levels and the general lack of suitable habitat for fauna within or close to the MIA it is anticipated that no significant impacts from noise generated by the Project are likely to occur on terrestrial fauna in the study area.</p> <p>With regard to increased activity in the area, in addition to the mitigation measures to reduce the risk of fauna mortality outlined in Section 12.8.3, SCC will be developing policies and procedures for all staff using local roads. This will include awareness of the presence of local fauna and what to do in the event of an incident.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
30.5	Chapter 16 - Economic	It is of great concern to us that if the proposed mine goes ahead the devaluation of our property Kolane (Lot 13 DSN43) which means our bank equity is greatly reduced thus affecting our ability to borrow against our dwindling asset. Given a choice no one wants to live next door to a coal mine.		<p>The Economic Report included as Appendix A4-16 to the EIS states in Section 5.11.2.2</p> <p><i>"The construction and operation of the Project is likely to negatively impact on the demand for rural land in the immediate vicinity of the Project, according to consultation with rural agents in the Study Area. However despite this negative impact on demand, real estate agents in the Study Area reported minimal negative impact on actual sales values as a result of previous mining developments in the region. As a result, the impact of the Project on rural property values due to co-existing land uses is expected to be minimal and restricted to those landholders directly affected by mine site infrastructure."</i></p> <p>Compensation agreements will be negotiated with those landholders that are proposed to be directly affected by the project and any land valuation issues will be addressed as part of negotiating these agreements.</p>
30.6	General	The proposed haul road is only 800m from our primary residence. Our prominent winds are from the south east. If this project goes ahead with 24hr trucks operating past our front door our quality of life will be greatly impacted. Potential dust, noise, vibration and visual amenity would be a constant intrusion on our everyday quiet life.	Buffer zones may help but are not the answer. Relocation is not an option this is our home	These concerns are noted. The assessment of potential environmental impacts associated with the proposed infrastructure corridor will take place under a separate approvals process. The scope of this forthcoming assessment will be determined through consultation with EHP but is likely to consider, amongst other issues, air quality, noise, vibration and visual amenity.

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
31.1	Chapter 9 - Groundwater	We use groundwater every day for our cattle. What impact will this have on our business?		<p>Our groundwater modelling indicates there is unlikely to be an impact on groundwater users or the groundwater resource in terms of quality or quantity.</p> <p>SCC will install long-term groundwater monitors at a number of locations around the project site to monitor impacts on the groundwater system as a result of mining activities. Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such a pipes and pumps) to ensure ongoing water supply.</p> <p>Your property is located a considerable distance from the site. There is not expected to be any impact on your business.</p> <p>Section 9.6 of the EIS provides further information regarding the management and mitigation of groundwater impacts.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
32.1	Chapter 9 - Groundwater	We water 200 head of cattle everyday on our farm. What will the impact be?	Consult. Research the baseline and monitor ground water.	<p>A comprehensive assessment of the potential impacts on groundwater is presented in the final EIS. Please refer to Chapter 9 - Groundwater and Appendices A4-7a and A4-7b. Chapter 9 along with the appendices comprise a pre-mining assessment of the potential impacts on groundwater. Subsequent to the baseline monitoring undertaken for the development of the EIS, additional monitoring and assessment has been undertaken.</p> <p>Based upon the assessments undertaken, it is unlikely there will be any impact on the quantity or quality of groundwater from existing bores.</p> <p>SCC will implement a groundwater monitoring program to monitor the impacts of mining activity on groundwater and proactively address any potential impacts.</p>
32.2	Chapter 9 - Groundwater	How will the quality of the ground water be measured?	More details in a ground water management plan.	Section 9.6 of the final EIS outlines the proposed approach to groundwater management and mitigation.
32.3	Chapter 5 - Land	How will the hugely important impact of subsidence be measured?	More details in a subsidence management plan	<p>Section 5.5 in Chapter 5 - Land and Appendix A4-2 of the final EIS provide detailed information regarding subsidence. A subsidence management plan will be developed once an Environmental Authority has been granted for the project. This enables the plan to consider conditions imposed as part of any approval. The management plan could include a number of measures such as pre-emptive measures installed ahead of subsidence or rehabilitative measures installed post-mining which taken together, will avoid any long term significant impacts.</p> <p>Please refer to Chapter 1 - Introduction in the final EIS which provides a graphical representation of the environmental management process and at what point management plans are developed.</p> <p>Impacts associated with subsidence will be addressed on a property by property and longwall panel, by longwall panel basis. It should be noted that predicted subsidence levels are worst case scenarios and as such actual impacts may be significantly less. Given the rate at which subsidence will occur it is fully expected that subsidence can be appropriately managed. The exact scope of management measures will be developed as the Project progresses in consultation with statutory agencies and landholders. SCC would be responsible for the implementation of the SMP and any statutory reporting requirements on the efficacy of its approach.</p>
32.4	Chapter 10 - Air Quality	Should the impact zone from the mine be wider?	More details in how the air pollution would be managed	<p>The air quality modelling undertaken concludes that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations.</p> <p>The Air Quality Management Plan will include management and mitigation measures such as those included in Section 10.8.2 of the final EIS. The plan will be developed once an Environmental Authority has been granted for the project. It will specify sites for long term air quality measurements during construction and operation. These will be "real time" measurements ensuring that any exceedances are immediately realised and acted upon.</p>
32.5	Chapter 11 - Noise and Vibration	Should the impact zone for noise control consider more of the surrounding farms. This would include our farm.	More details in how the noise would be managed	<p>An assessment of potential noise and vibration is included in Chapter 11 and Appendix A4-10. Section 11.7 of the final EIS outlines how noise and vibration will be managed. The assessment concludes:</p> <p><i>"Predicted noise levels for the operation of the mine are relatively low and adverse health effects on sensitive receptors are not expected, based on the guidelines within the EnHealth Council 2004 Health Effects of</i></p>



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Submission number	Topic	Comment	Recommendation / Suggestion	Response
32.6	We believe the increase in traffic will be greater than described.	More details in the management plan		<p><i>Environmental Noise. Predicted noise levels are below the EPP 2008 Acoustic Quality Objectives. Mitigation measures outlined in Section 11.6 would further reduce the predicted noise levels and minimise the risk of adverse noise impacts."</i></p> <p>The traffic modelling has been based on industry best practice and the mitigation measures proposed are considered appropriate to reduce potential impacts. Management Plans will be developed prior to construction and will outline all specific management and mitigation measures.</p>

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Department of Treasury and Trade

Submission number	Topic	Comment	Recommendation / Suggestion	Response
33.1	Chapter 6 - Traffic and Transportation	It is noted that, as a standalone project, this coal mine is not expected to have a significant impact on traffic volumes. However, this project is one of several major projects proposed within the Central Highlands region and therefore the cumulative traffic impacts should be considered and referenced in more detail.	Therefore the cumulative traffic impacts should be considered and referenced in more detail.	The cumulative traffic impacts have been assessed as much as they can based upon information about other projects. We cannot comment on the development programs of other projects or speculate as to the potential impact on traffic they may have.
33.2	Chapter 6 - Traffic and Transportation		Where upgrades are required to existing road infrastructure due to increased traffic movements associated with mining activities in the area, QTT consider that, the proponent/s should bear all costs and risks associated with the upgrades and the ongoing maintenance of these upgrades.	Noted. SCC will engage with the Central Highlands Regional Council and the Department of Transport and Main Roads to determine appropriate works to be undertaken on local and state roads, and any ongoing maintenance agreements associated with those.
33.3	Chapter 6 - Traffic and Transportation		Suggest that the proponent/s should consult with DTMR to identify possible mitigation measures that should be undertaken to address impacts on the existing road network and pavement due to increased traffic demand	As noted above, SCC will be consulting with TMR regarding impacts to the state roading network.
33.4	Chapter 6 - Traffic and Transportation		Suggest that the proponent/s should consult with DTMR in the development of the Road Use Management Plan and Traffic Management Plan to minimise potential impacts on the efficiency of the state controlled road network, to ensure safe operation of all vehicles on site and off site and to minimise traffic related incidents	The objectives of the Road Use Management Plan (RUMP) and Traffic Management Plan (TMP) have been developed based on DTMR requirements. A Draft RUMP has been provided and presented in Appendix A4-4. This will be further developed with a number of stakeholders, including TMR.
33.5	Chapter 6 - Traffic and Transportation		Suggest the proponent/s provide an undertaking to the Central Highlands Regional Council and DTMR to the effect that traffic flows will not be negatively impacted by the mining activities and that any work required to the existing road network as a result the new projects will be at the proponent/s cost and risk.	As noted above, SCC will engage with the Central Highlands Regional Council and the Department of Transport and Main Roads to determine appropriate works to be undertaken on local and state roads, and any ongoing maintenance agreements associated with those.
33.6	Chapter 6 - Traffic and Transportation		Similarly, all costs and risks associated with constructing the new transport corridor and train load out facility (including auxiliary services required such as power, water, fit-out to connect to existing rail line etc) should be borne by the proponent/s and adhere to DTMR legislative requirements	As noted above, SCC will engage with the Central Highlands Regional Council and the Department of Transport and Main Roads to determine appropriate works to be undertaken on local and state roads, and any ongoing maintenance agreements associated with those.
33.7	Chapter 6 - Traffic and Transportation		Suggest the proponent should not rely on DTMR's Road Implementation Program (RIP) 2011-12 to 2013-14 to ascertain what upgrades are planned within the vicinity of the site in the future. The Queensland Transport and Roads Investment	The TMR 'Queensland Transport and Roads Investment Program (QTRIP) 2012-2013 to 2015-2016' document for the Fitzroy Region outlines proposed road improvement projects within the vicinity of the site. This document has been studied to identify any improvement projects scheduled for roads relevant to this project. These have been

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33.8	Chapter 6 - Traffic and Transportation		<p>Program (QTRIP) 2012-13 to 2015-16 is the most up to date document that will provide the proponent with an idea of what projects have been identified for roads in the Central Highlands region. However, given this document is published at a point in time, only consultation with DTMR could provide the proponent with assurances as to what projects are to be delivered in the area</p>	<p>summarised in a table and a Figure used to represent where these improvements are located in vicinity of the Project. SCC's technical specialists, TTM contacted TMR's Emerald office to obtain more recent information on proposed TMR works, however they were not able to provide this information at the time of preparing this report.</p>
			<p>It is noted that roads in the inland area of the Fitzroy Region were particularly impacted by the flooding that impacted large tracts of Queensland in early 2011. As such, the State would need to ensure that it is not liable for any compensation claims related to upgrades or new infrastructure planned by the proponent</p>	<p>As noted above, SCC will engage with the Central Highlands Regional Council and the Department of Transport and Main Roads to determine appropriate works to be undertaken on local and state roads, and any ongoing maintenance agreements associated with those.</p>

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34.01	Chapter 12 - Ecology	<p>Ref Table 12-20</p> <ul style="list-style-type: none"> The Project is unlikely to directly impact Koala populations within the region. Land subsidence may result in impacts to vegetation communities, particularly along Springsure Creek. Other references to impact on koalas <p>Long term studies (30 years plus) by Melzer and others can be interpreted to show a steady decline of koala populations along Springsure Creek, especially in the Arcturus area, with this decline appearing close to critical over the past 2- 5 years. While the causes of this decline are almost certainly associated with non-mining activities especially lack of regeneration due to grazing, interference with groundwater within the riparian/floodplain tree zone and establishment of irrigation infrastructure (water storages, pivot irrigators etc on floodplain areas. Mining activities within the major and minor riparian and floodplain system may have only a minor impact but this could be sufficient to degrade further the suitable koala habitat to a condition where recovery becomes impossible.</p>	<p>That operational plans and conditions for Springsure Creek Coal should:</p> <ul style="list-style-type: none"> mandate targeted pre-mining restoration works along Springsure Creek prior to long wall mining being conducted. This restoration could include supported natural regeneration using withdrawal of stock and other recognised techniques and higher intensity planting of suitable species for habitat improvement and riparian stabilization. Early restoration works are likely to best survive the changes in water flows/retention and the impact of slumping on root systems etc. The regenerating riparian species are also likely, over time, to be producing seed material that will assist natural regeneration post-mining rather than requiring more costly interventionist restoration works. 	<p>Table 12-20 has been rewritten to remove any contradictory statements. The intent of the information presented was related to the construction phase of the Project which will not require clearing of habitat. A specific species management plan will be developed for koala. This statement which was originally only in the MNES chapter has also been inserted into Table 12-20 and Section 12.6.4.2:</p> <p>Central Queensland University is currently conducting a trial of Koala habitat restoration in the Springsure Region in conjunction with funding by Xstrata Coal. SCC will investigate opportunities to assist with this project.</p> <p>Note in Section 12.7.2: "SCC will also investigate the potential for carrying out rehabilitation works along creek lines in the Project area and surrounds. This would have the effect of increasing both habitat area and landscape connectivity in the local area. However, this can only be carried out in consultation and with the cooperation of the local landowners."</p> <p>Restoration works will be carried out once impacts from subsidence are known. Restoring a landscape prior to any impact is not best practice.</p>
34.02	Chapter 12 - Ecology	<p>Ref 12.8.1</p> <p>"Indirect impacts to habitat connectivity may occur due to vegetation dieback resulting from subsidence. If subsidence does result in dieback, a revegetation program will be developed and implemented. Subsidence may also reduce connectivity along subsided creek systems within the Project area. In the unlikely event that connectivity along creek systems is impacted by subsidence the following measures to reinstate flow rates and direction will be initiated:" is inadequate it that it does not indicate a preparedness to expect impacts on vegetation communities and decline of habitat connectivity. Such impacts are likely to occur although this may be due to instability triggered by prior intensive agricultural developments</p>	<ul style="list-style-type: none"> A more detailed statement on vegetation management and the enhancement of habitat connectivity should be prepared. It would be in the interest of Springsure Creek Coal if early (pre-mining) effort to is made to improve the diversity and stability of these functional natural while at the same time demonstrating sound management of agricultural enterprise The dot points outlining methods which may be applied should include vegetation restoration through direct intervention, encouragement of natural seeding and strategic management of stock grazing/ grazing exclusion and outlined in the section on Koalas above 	<p>A detailed Vegetation Management Plan including any restoration works will be a necessary part of the overall Project Environmental Management Plan. This will be developed and issued to EHP for approval prior to any works being carried out on the site.</p> <p>Note in Section 12.7.2: "SCC will also investigate the potential for carrying out rehabilitation works along creek lines in the Project area and surrounds. This would have the effect of increasing both habitat area and landscape connectivity in the local area. However, this can only be carried out in consultation and with the cooperation of the local landowners."</p>
34.03	Chapter 5 - Land	<p>Ref Chapter 12, Conclusions</p> <p>This impact will be managed through management of surface drainage flows, the development and strict adherence of erosion sediment control measures, recontouring where required, and revegetation and rehabilitation were required. These measures are designed to avoid significant impacts from subsidence to flora and fauna communities within the Project area</p>		Noted



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34.04	Chapter 8 - Surface Water	<p>Ref 17.5.1.4 Observations on flooding in 2010/11 were not well described in the Water section. Is it really correct to state that flooding was restricted to riparian zones and topographical depressions when the entire alluvial floodplain of the Comet River and Springsure Creek was inundated, in places to a considerable depth and in a sustained and destructive manner? Satellite imagery in and around the Project site shows abandoned pivot irrigator sites on floodplain and suggests that repeated flooding has forced the withdrawal of irrigation from these lower lying parts of the catchments. Site observations suggest that poor channel definition along the junction of streams with the Comet River creates variable flood flow patterns, with extensive water ponding and surface stripping. The recent (10-20 years) establishment on the Comet floodplain of infrastructure, such as rail lines, water storages and irrigation equipment has caused changes to flood flow direction and intensity. It is unwise to dismiss the impact of these relatively recent changes with a few simple comments based on personal observation especially given the excessive contribution of sediment and nutrient flows from the Comet catchment to the Fitzroy River Basin and Great Barrier Reef waters</p>	<p>A more detailed analysis of flooding and surface water flows should be undertaken and planning for land management (cropping and grazing) during and post the proposed 40 year mining period should more thoroughly consider the impact of recent flooding events, Flood management The mining proponents should consider/be directed to reducing some of the prior agricultural impacts, habitat decline issues from the start of operations with actions such as;</p> <ul style="list-style-type: none"> • Fostering natural/supported regeneration along significant waterways for both habitat and catchment stability purposes. • This could involve strategic use and withdrawal of grazing for exotic pasture reduction and to foster natural regeneration • Early and continuous restoration work on fragmented endangered habitat should be a requirement of offset conditions. • Restoration work on these disturbed areas before being subject to u/g mining should be beneficial in reducing sediment mobilisation when slumping occurs and to facilitate more stable riparian restoration. • There is also an issue of at least one water storage over a minor stream which is expected to experience wall collapse. CCC suggests that that storage should be dismantled before mining and, if required for future agricultural use be established in an off stream location. • CCC has no major concern with the extra ponding following slumping provided excessive stream deviation/sediment removal does not happen and the ponded areas have stable vegetation cover. 	<p>Overland flow, stream flow and ponding throughout the EIS are discussed in Chapter 8 - Surface Water and Appendix A4-5. Subsidence will impact overland flows however through mitigation flow regimes can be reinstated and redirected. Ponding impacts are not anticipated to be significant and will be managed.</p> <p>A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously. Further staged assessment will be undertaken as the project progresses to analyse in finer detail the effects of any likely changes to overland flow and ponding regimes and subsequent effects on individual properties. This will include likely effects on current soil management (including sediment and erosion controls), irrigation and general agricultural practises.</p> <p>Further liaison/consultation will be undertaken with individual affected property owners to further understand and mitigate likely effects on current agricultural practices.</p> <p>Subsidence Management Plans, Species Management Plans, Significant Species Management Plans and Vegetation Management Plans will be developed prior to construction of the Project. These plans will detail how management and mitigation of stream beds and vegetated areas will be carried out to ensure impacts are mitigated and or rehabilitated. Further discussion and analysis of the impacts of subsidence on flora and fauna are presented in Chapter 12 - Ecology.</p>
34.05		<p>Other Issues - Springsure Creek Coal CCC has not discussed issue relating to high value agricultural land as the detailed personal views and actions of the local landholders (e.g. Golden Triangle group) are not known. It is noted that this group has already made detailed representations as evidenced within the Terms of Reference</p>		Noted.
34.06	Chapter 5 - Land	<p>Section 5 Land 5.7.3 pg 57 EIS Disturbed Land EIS states disturbed land will be returned to pre-existing vegetative and habitat condition.</p>	<p>The Proponent should be requested to return some elements to a more stable, better management condition i.e.</p> <ul style="list-style-type: none"> • Cropping land – better placement design of crop lands, water storages, less impact on sediment loss, intrusion on riparian zones etc 	<p>These suggestions will be taken into consideration when detailing the management plans for site rehabilitation, biodiversity management, agricultural management and subsidence management.</p>



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			<ul style="list-style-type: none"> Natural habitat - Restoration works including Fencing and stock management to enhance natural habitat and reduce the decline of riparian zone, weediness, potential salinity issues, erosion. An assessment is needed on the potential impact off the established irrigated Leucena plantations within the project area. This species will present a future invasive weed threat on floodplain areas (and common on CQ mine rehabilitation trials). If the intent is to maintain this form of production, hopefully away from floodplain areas, the proponent should demonstrate sound practice involving species from becoming a widespread riparian weed. Reducing the size of existing dams, e.g. area not necessarily volume, could provide opportunities for combining wetland habitat restoration with sustainable grazing, with appropriate biodiversity fencing regimes. 	
34.07	Chapter 5 - Land	EIS 8.6 Farm Dams and Creek Bank instability - See Table 13 esp. pg 8-36 CCC is concerned about the extensive existing stream bank instability especially along Springsure Creek.	Recommend the proponent should be required to commence restoration of creek banks (width, species diversity, grazing withdrawal/management) prior to mining occurring to foster future remediation through natural processes.	<p>Subsidence Management Plans, Species Management Plans and Vegetation Management plans will be developed prior to construction and operations. These plans will be designed to maintain the ecological integrity of the individual areas which may be impacted.</p> <p>It should be noted that it is SCC intent to look and methods (e.g. restoration) of improving vegetation communities along Springsure creek. This will be done in consultation with landowners.</p>
34.08	Chapter 9 - Groundwater	EIS Endangered Regional Ecosystems - habitats There appears to be a inadequate amount of information in this section and this raises the possibility that there will be adverse effect on both natural systems and minor users of groundwater	<ul style="list-style-type: none"> There is a need for information some of which could be gained with a more comprehensive checking of existing bores likely to be affected by mining further testing of the assumption groundwater discharge is only in the creek alluvium other matters mainly relate to effectiveness of regulatory processes 	<p>Since preparation of the EIS, where we have been able to gain the consent of landholders, additional hydro census, groundwater level, aquifer properties and water quality data has been collected from properties and groundwater infrastructure maps updated. Additional data has been gathered from further drilling operations. Using the additional data collected, both the hydrogeological conceptual model and the numerical model have been updated. A revised groundwater report has been prepared along with a mitigation and monitoring strategy. Please refer to the revised Chapter 9 and Appendices 4-7a and 4-7b which are included on the enclosed USB.</p> <p>Based upon the assessments undertaken, it is unlikely there will be any impact on the quantity or quality of groundwater from existing bores.</p> <p>SCC will implement a groundwater monitoring program to monitor the impacts of mining activity on groundwater and proactively address any potential impacts. In addition, we are</p>

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				seeking to enter into discussions with landholders to enter into compensation agreements regarding impacts as a result of mining, including impacts on groundwater infrastructure.
34.09	Chapter 12 - Ecology	<p>EIS Section 12.9.1.1 Queensland Biodiversity Offset Policy EIS proposed overarching policy on offsets but notes that “biodiversity offsets will not be required” as “no remnant vegetation will be cleared within the study area”.</p> <p>Capricorn Conservation Council understands that there is some need for caution in publicly defining areas which could be used to secure and or rehabilitate land which may be required and suitable for offsets. However the discussion in Section 12.9.1.1 does not give confidence that the proponent will have the understanding and capacity to secure ecologically viable and manageable offsets in the likely event that some action of offsets will be required during the life of the Springsure Creek Mine. There is considerable public scepticism about the value of offsets, partially due to the extended time periods over which various project proponents (and governments) have procrastinated in regard to offsets within Central Queensland and elsewhere</p>	The proponent should detail more information on how appropriate offsets could be negotiated, secured with a realistic tenure or covenant and eventually transferred to a form of long term state tenure or secure private ownership	Further information regarding the offset strategy has been provided in Section 12.9.
34.10	Chapter 12 - Ecology	CCC considers that the proponent should be required to undertake a greater examination on water management issues and developing operational and rehabilitation practices which contribute to a net gain in regional biodiversity and habitat connectivity. Reference should be made to the Project’s capacity to aid landscape wide improvements with respect to historical degradation		<p>Refer to Section 12.8.2 including reference to water flows and the following: <i>“Bandanna will also investigate the potential for carrying out rehabilitation works along creek lines in the Project area and surrounds. This would have the effect of increasing both habitat area and landscape connectivity in the local area. However, this can only be carried out in consultation and with the cooperation of the local landowners.”</i></p> <p>Refer also to Section 12.9 regarding the offsets policy. Any offsets are very unlikely to be on a one-to-one basis thereby leading to a net gain in habitat.</p>

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Department of Transport and Main Roads

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35.1	Chapter 6 - Traffic and Transportation	The proponent has excluded project elements and impact assessment of traffic generated in their construction, of what appears to be key aspects of the project		<p>SCC has consulted with the Department of Environment and Heritage Protection (EHP) with regards to the appropriate assessment of the Project and its components, including the separate approval processes for the mine and infrastructure corridor/train load out facility.</p> <p>These approvals have been separated into three sections to:</p> <ul style="list-style-type: none"> Align with approvals under the Mineral Resources Act 1989 (Qld) (MR Act) for appropriate Mining Leases (MLs), which trigger separate environmental approval processes to the mine - application for MLA 70502 has been made for the infrastructure corridor under the appropriate section of the MR Act (section 316); and application for MLA 70501 has been made for the train load out facility under the appropriate section of the MR Act (section 234(1)(b)) Allow for a greater level of transparency to create opportunities to discuss infrastructure needs and placement with stakeholders prior to formal approval processes with State or Commonwealth governments; and provide information about the mine and its potential impacts, opportunities and management strategies, in the public domain as soon as possible Align with the project development timeframe.
35.2	Chapter 6 - Traffic and Transportation	Given that the Springsure Creek Coal project has a significant lifetime (40 years) and is in close proximity to existing infrastructure, opportunities to minimise the impacts of associated freight tasks on regional roads and safety and amenity to other road users should be explored	In the SEIS, the proponent is requested to investigate the feasibility of utilising rail as an option to deliver operational inputs for the mine and provide a summary of the outcomes.	SCC will continue to investigate opportunities to minimise impacts to the community. This includes investigating the feasibility of rail for major freight deliveries.
35.3	Chapter 6 - Traffic and Transportation		The proponent for the Springsure Creek Coal project is encouraged to consult with the proponents of other existing and planned coal mining projects within close proximity to the Central Western Rail Line, and with suppliers and rail service providers. They are encouraged to develop a collaborative approach to managing the cumulative impacts of the road transport task during the construction and operational phases, for example, through combined rail haulage of bulk commodities such as fuel.	SCC will continue to liaise with other proponents within the region, seeking viable and safe solutions where possible with regards to transportation of goods, via both road and rail.
35.4	Chapter 6 - Traffic and Transportation	Section 7.3 This section suggests Infrastructure Given the time and cost involved in preparing Agreements (IAs) will be required to and finalising IAs, the proponent should liaise funding any necessary roadworks.	Given the time and cost involved in preparing infrastructure Agreements (IAs) the proponent should liaise with CQ-Emerald office about whether IAs are required or some lesser form of	SCC will engage with TMR's CQ-Emerald Office regarding agreements for works.

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			documenting agreed works can be negotiated, for example, via exchange of letters of commitment.	
35.5	Chapter 6 - Traffic and Transportation	Section 6.1.1.1 This section again states the EIS and RIA do not include assessing the impacts of traffic generated by constructing and operating the transport and infrastructure corridor, the train load out facility and elsewhere the accommodation centre.	In keeping with comments made about the RIA, TMR requires all aspects of traffic generation for the mine to be assessed and addressed in the SEIS, irrespective of whether subject to subsequent approvals.	SCC has consulted with the Department of Environment and Heritage Protection (EHP) with regards to the appropriate assessment of the Project and its components, including the separate approval processes for the mine and infrastructure corridor/train load out facility. Any potential cumulative effects resulting from the mine, infrastructure corridor, and train load out facility will be considered as part of the assessment for the infrastructure corridor and train load out facility.
35.6	Chapter 6 - Traffic and Transportation	Section 6.3.4 There is insufficient focus in the EIS on identifying and dealing with the potential increase in road safety risk from all elements of project traffic		SCC will work with stakeholders including TMR, the Central Highlands Regional Council and the school bus committee to discuss the design of state and local road improvements to cater for all road users. In addition, a Road User Management Plan will be implemented and reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users. A Road Safety Audit will be undertaken during the design stage of any planned upgrades to state and local roads to identify further improvement to the design to increase road safety. Potential upgrade requirements including but not limited to the following: <ul style="list-style-type: none"> • Provisions for school bus stops • Warning signage where required • Posted and design speed limits • Geometric road design • Localised widening on local roads • Provisions at bridges and culverts • Provisions for recreational cyclists.
35.7	Chapter 6 - Traffic and Transportation	Table 6.7 There appears to be an inconsistency in estimating potential fuel requirements for the project, with the RIA estimating 4M litres per year, and this table estimating 10 tanks plus 115,000 litres per year.		Table 6-7 in Chapter 6 refers to 115,000 litres per year for fuel during the construction phase which is correct. Appendix A of the technical report has been amended accordingly.
35.8	Chapter 6 - Traffic and Transportation	Section 6.6, Table 6-14 The second paragraph uses descriptors of risk that are more suitable to describing natural environmental risks rather than the risk of road impacts. For example, to discuss Medium level road safety risks of Increased traffic incidents in terms of "degradation to environmental, social and/or community values" doesn't make sense. Nor does discussion about potential impacts and risks.		The definition of risk levels have been updated in the EIS.



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35.9	Chapter 6 - Traffic and Transportation	Section 6.6.1 Omits including the Arcturus coal project, as required by the final ToR and also other elements of the overall development		Bandanna Energy as the proponent of the Arcturus Coal Mine has identified that this mine is on hold for an indefinite period of time. If and when this mine comes online, it is anticipated that a transport assessment will be undertaken based on requirements at the time and incorporate the contemporary traffic situation including the Springsure Creek Coal Mine.
35.10	Chapter 6 - Traffic and Transportation	Section 6.7.1.1 The Roaduse Management Plan having 3 main objectives, namely minimising impacts on road safety and efficiency and the number of complains/incidents. However, TMR's "Guideline for preparing an RMP" expands on the purpose of this plan.		The objectives of the Road Use Management Plan (RUMP) have been developed based on TMR requirements. A Draft RUMP has been provided and presented in Appendix A4-4. TMR will be engaged in the further development of the RUMP.
35.11	Chapter 6 - Traffic and Transportation	Section 6.7.1.4 The proponent will liaise with TMR about transport of oversize/ over-mass loads	The proponent must liaise closely with the Statewide HV Permits office in Brisbane or Rockhampton and ensure all impacts on pavements and structures are identified and dealt with in the RIA	SCC will work closely with TMR and others (such as QPS) regarding logistics and permits involved with oversize/over-mass loads and ensure the road impact assessment includes impacts on pavements and structures.
35.12	Chapter 6 - Traffic and Transportation	Section 6.7.1.6 This section and subsequent sections, for example, about fatigue management, lists a number of important road safety management strategies.	These strategies should form key strategies in the future RMP, along with information about how they will be implemented and complied with. This package of measures should be summarised in the project's SEIS	The list of strategies included in Section 6.7.1.6 is not comprehensive. A number of strategies are expected to be included in the final RUMP.
35.13	Chapter 6 - Traffic and Transportation	Section 6-10	Figure 6-4, pg 6-16 should re-colour roads with a more contrasting colour (black roads over red or green rail, for example, to more clearly show the 2 level crossings on the Gregory Hwy or crossings on the Capricorn Hwy	Figure 6-4 has been revised and coloured more effectively to clearly outline the different road, rail and level crossings, particularly on Gregory Highway and Capricorn Highway.
35.14	Chapter 6 - Traffic and Transportation	Section 6-10 Under ToR s4.3.2, 2nd dot point, effectively requiring the EIS to provide all traffic generation information, the column to the right simply lists Waste Mgt	This column should identify the sections which list key traffic generation information such as Tables 6-7 to 6-9	Section 6-10 presents a table listing the requirements of the ToR in relation to transport and directs the reader to the appropriate section of the EIS for the information. For information regarding waste management the reader is directed to Chapter 7 of the EIS.
	Chapter 6 - Traffic and Transportation	Section 6-10 The second and third points require the EIS to "provide sufficient information to show how infrastructure will be affected."	Rather than simply noting this, key sections should be listed.	Section 6-10 presents a table listing the requirements of the ToR in relation to transport and directs the reader to the appropriate section of the EIS for the information. For information regarding waste management the reader is directed to Chapter 7 of the EIS. Please refer to Section 9.5 of the revised technical report in Appendix A4-04 of the final EIS. This provides an outline of several key strategies to be implemented and developed further.



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35.15	Chapter 6 - Traffic and Transportation	Section 6.10, pg 6-45 The 9th dot point on this page requires the EIS to discuss new rail transport infrastructure to meet demand potential impacts at level crossings for example on the Gregory and Capricorn Hwys		No existing level crossings are impacted on the Gregory Highway or Capricorn Highway and no new level crossings on either state road are required as a result of the project.
	Chapter 6 - Traffic and Transportation	Section 6-10 The 12th dot point similarly requires adequate information, assessment and measures for dealing with potential impacts at level crossings for example on the Gregory and Capricorn highways	In the SEIS provide adequate information, assessment and measures of dealing with potential impacts as level crossings, for example, on the Gregory and Capricorn highways.	No existing level crossings are impacted on the Gregory Highway or Capricorn Highway and no new level crossings on either state road are required as a result of the project.
35.16	Chapter 6 - Traffic and Transportation	Section 20.5, pg 20-3 This table lists only 3 commitments , regarding 1) access/ intersections to the Gregory Hwy, 2) developing the RMP, 3) no oversize vehicles on school routes. This is an incomplete list of the number of matters that need to be dealt with.		The commitments outlined in Chapter 20 - Key Commitments do not represent all commitments made by SCC, rather commitments which are being specifically highlighted as key, or commitments that are not included in the EM Plan (included as Chapter 18 of the final EIS). This section has been reviewed and updated where appropriate, however it should not be considered in isolation when reviewing the Proponents Commitments. The EM Plan will also be updated to incorporate the draft RUMP developed for the project.
35.17	Appendix A4-04 - Traffic and Transportation Report	Executive Summary In the second para this section advises that approvals for the accommodation village and the rail/loadout will be sought separately and therefore traffic generation for them have been excluded from this EIS. While accepting separate approvals processes, TMR is concerned this 'piecemeal' approach does not address the ToR.	The proponent is required to fully assess and address impacts of all project traffic: mine, accommodation village, rail/load out facilities and so on in the Supplementary EIS (SEIS) for the project.	SCC has consulted with the Department of Environment and Heritage Protection (EHP) with regards to the appropriate assessment of the Project and its components, including the separate approval processes for the mine and infrastructure corridor/train load out facility. Any potential cumulative effects resulting from the mine, infrastructure corridor, and train load out facility will be considered as part of the assessment for the infrastructure corridor and train load out facility.
35.18	Appendix A4-04 - Traffic and Transportation Report	Section 1.4, pg 2 The list of factors assessed in the road impact assessment (RIA) should more comprehensively focus on assessing and addressing the most important or highest risk factors		This section of the technical report has been updated.
35.19	Appendix A4-04 - Traffic and Transportation Report	Section 2.4, pg 5 The SEIS must consider the need for flag-lighting at access intersections from the Gregory Hwy to the accommodation village or at Glenorina Rd for night driver		Lighting at the Gregory Highway intersections with the accommodation village access and Glenorina Road will be considered in accordance with Chapter 17 of the RPDM. TMR has provided approval for the accommodation village (through the MCU approval with Central Highlands Regional Council) and conditioned that lighting be provided at the access intersection. It is anticipated that flag lighting at this intersection would be suitable. The Gregory Highway / Glenorina Road intersection does not currently have lighting and it is anticipated that Category V5 lighting should be sufficient for the construction and operation phase of the mine. The approval for the accommodation village was granted by CHRC on Wednesday 12 June

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				2013 - CHRC reference number 4006/13.
35.20	Appendix A4-04 - Traffic and Transportation Report	Section 2.4 The 3rd para advises that some workers may drive from SE Qld. However the discussion on road safety and fatigue management in Section 5.6 focusses on crashes in the vicinity of the project.	Section 5.6 Existing Road Crash data in the appendix should consider the road safety implications and potential mitigation strategies for all project workforce, especially those travelling from further afield	Section 6.3.4 in Chapter 6 of the final EIS regarding existing road crash data has been reviewed and updated. Potential Impacts have also been reconsidered and updated where appropriate.
35.21	Appendix A4-04 - Traffic and Transportation Report	Section 2.7 The last sentence suggests one road-use management strategy in the RUMP will include discouraging use of local roads. However, this and other road-use management strategies are not well canvassed in this RIA or in the EIS Chapter 6.	The RIA and SEIS should expand further on proposed road-use management strategies and particularly how they will be implemented and enforced.	As noted above, the list of strategies included in Chapter 6, Section 6.7.1.6 is not comprehensive. The strategies referred to in the technical report are examples only. A number of strategies are expected to be included in the final RUMP. Please refer to Section 9.5 of the revised technical report in Appendix A4-04 of the final EIS. This provides an outline of several key strategies to be implemented and developed further.
35.22	Appendix A4-04 - Traffic and Transportation Report	Section 4 The last para in this section states Type 2 road trains have access to the project site. Elsewhere in the RIA (Table 6.1) it refers to "double road trains". Type 2 road trains are not permitted east of Alpha.	Correct references to use of heavy vehicles in all subsequent documents and continue to liaise closely with the Heavy Vehicle Road Operations Program Office (HVROPO) in Rockhampton	References have been corrected and updated within the final EIS.
35.23	Appendix A4-04 - Traffic and Transportation Report	Section 4.4.2 The 2nd para lists a number of ways the proponent proposes to minimise road impacts through higher vehicle occupancy and limiting parking	These and all other road-use management proposals and how they will be implemented/compiled with should be lists in the future road-use management plan, in accordance with TMRs "Guideline for preparing an RMP" a copy of which is attached.	Is is assumed this comment refers to Section 8 of Appendix A4-04 of the EIS. This report has been updated taking into account comments made in submissions. Please refer to the draft RUMP included as Chapter 9 of the updated technical report more detail regarding the strategies to be implemented.
35.24	Appendix A4-04 - Traffic and Transportation Report	The 2nd para states the RIA does not include analysis of many intersections either because they are related to parts of the overall development which will be the subject of subsequent approvals or because it is difficult, either because detailed traffic generation by other projects is not available or % of project traffic may not be high.	The proponent and consultants should liaise with CQ Region – Emerald office about which intersections should be the subject of further analysis. The RIA has elsewhere made some worthwhile assumptions of cumulative traffic by other projects and this effort should be extended to analysing key intersections especially those related to the project whether currently included or excluded for example the accommodation camp access intersection.	SCC will liaise with the CQ-Emerald Office as requested.

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35.25	Appendix A4-04 - Traffic and Transportation Report	Section 5.5 The 3rd para discusses the requirements to upgrade intersections on the Gregory Highway, however the possible need for flag lighting is not canvasses	The RIA should consider whether flag lighting is warranted.	Lighting at the Gregory Highway intersections with the accommodation village access and Glenorina Road will be considered in accordance with Chapter 17 of the RPDM. As noted above, TMR has provided approval for the accommodation village (through the MCU approval with Central Highlands Regional Council) and conditioned that lighting be provided at the access intersection. It is anticipated that flag lighting at this intersection would be suitable. The Gregory Highway / Glenorina Road intersection does not currently have lighting and it is anticipated that Category V5 lighting should be sufficient for the construction and operation phase of the mine. The approval for the accommodation village was granted by CHRC on Wednesday 12 June 2013 - CHRC reference number 4006/13.
35.26	Appendix A4-04 - Traffic and Transportation Report	Section 5.6 The section title does not indicate the section contents, presumably the assessment of increased road safety risk. Nor is the section a sufficiently comprehensive assessment of potential road safety impacts focussing on crash rates for one main road (Gregory Highway)	The section should refer to Appendix B of GARID to more comprehensively consider road safety issues.	Chapter 5 and Appendix A4-04 have been updated. Some information from section 5.6 in Chapter 5 has been moved to section 9.5.2 in an effort to make sections/section headings clearer. GARID is referenced in section 1.4, however the TMR RMP revised guidelines are referenced in section 9 as these are considered to provide a more comprehensive list with regard to safety parameters
35.27	Appendix A4-04 - Traffic and Transportation Report	Section 5.7 The RIA does not consider the impacts of other elements of this mines' development	RIA does not consider the traffic impacts of other elements of this mine's development	The scope of the EIS is for the mine only. Other elements of the Project will be assessed within a separate approvals process.
35.28	Appendix A4-04 - Traffic and Transportation Report	Table 5.5 This table provides useful estimates of traffic generation by nearby projects. However it is difficult to understand the overall traffic picture without their locations being depicted on a map. The SEIS would be enhanced and traffic flows more easy to understand with the inclusion of a regional map showing other mine locations, including Arcturus mine as required by the final ToR.	The SEIS would be enhanced and traffic flows more easy to understand with the inclusion of a regional map showing other mine locations, including Arcturus mine as required by the final ToR.	Please refer to Figure 3-1 Regional Context included in Chapter 3 of the final EIS.
35.29	Appendix A4-04 - Traffic and Transportation Report	Section 5.9 This section describes the purpose of the road-use management plan as minimising impacts on road safety and efficiency and the number of complaints/incidents. However, TMR's "Guideline for preparing an RMP" expands on the view of its purpose.		The technical report has been reviewed and updated. As a result, section 5.9 has been removed. A Draft RUMP has been included in a new Section 9. Please refer to Appendix A4-04 of the final EIS.
35.30	Appendix A4-04 - Traffic and Transportation	Table 6.1 Vehicle type descriptions are not clear.	In the SEIS clarify vehicle types	Table 6.1 has been amended to refer to state Road Trains as opposed to 'double road trains'. All references to double road trains have been removed.



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	Report			
35.31	Appendix A4-04 - Traffic and Transportation Report	Table 6.2 These tables do not state the estimated % increase in ESAs	To assist determining whether increased ESAs exceed the 5% threshold, state in the SEIS the estimated % increase in ESAs	Percentage changes of ESAs are discussed in Section 6.3.

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s.73 irrelevant information

Submission number	Topic	Comment	Recommendation / Suggestion	Response
36.2	Chapter 9 - Groundwater	<p>s.73 irrelevant information</p> <p>s.73 irrelevant information</p> <ul style="list-style-type: none"> None of these bores have been monitored by Bandanna. 		<p>The groundwater sampling program which has taken place to date has targeted a number of bores in the area associated with the Project. These bores and sampling location have been selected to provide a representation of the area for groundwater assessment and modelling. Additional groundwater data will be collected as part of an on-going assessment. The bores proposed to be monitored as part of the long-term monitoring are still being identified. As noted, we will be seeking to identify bores that provide a representation of the area.</p> <p>Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low. Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>SCC will install long-term groundwater monitors at a number of locations around the site to monitor impacts on the groundwater system as a result of mining activities. Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such a pipes and pumps) to ensure ongoing water supply.</p>
36.3	Chapter 9 - Groundwater	<ul style="list-style-type: none"> Turkey Creek borders the proposed mine and to date none of our bores have had any monitoring undertaken on them. 		<p>As noted above, the groundwater sampling program which has taken place to date has targeted a number of bores in the area associated with the Project. These bores and sampling location have been selected to provide a representation of the area for groundwater assessment and modelling. Additional groundwater data will be collected as part of an on-going assessment. The bores proposed to be monitored as part of the long-term monitoring are still being identified. As noted, we will be seeking to identify bores that provide a representation of the area.</p>
36.7	Chapter 14 - Social Impacts	<p>14.2.2 Public Consultation</p> <p>“SCC has consulted with landowners in the vicinity of the Project area and the CHRC on a periodic basis since exploration of the Project area commenced in 2009.”</p> <p>s.73 irrelevant information We have received two letters from Bandanna Energy to inform us of the EIS, and that they “propose to contact you to arrange a convenient time for a meeting”. However to date, no phone call has been received from Bandanna Energy to arrange a meeting for consultation with us.</p> <ul style="list-style-type: none"> The claim by Bandanna Energy to “minimize stress on property owners by demonstrating that agriculture and mining can successfully co-exist”, has not occurred because of Bandanna Energy’s inability to contact us. The uncertainty surrounding this proposed mine had been the cause of undue stress and worry. 		<p>Up until the public notification of the EIS consultation was focussed on discussions with landholders impacted by previous exploration drilling activity where rehabilitation had not been completed. Subsequent to this directly affected landholder engagement has continued, mainly on an individual basis through compensation discussions, restricted land identification and other EIS and Mining Lease related activities.</p> <p>A number of directly affected landholders attended a public information session in Springsure and many nearby landholders attended a similar session in Gindie. At these meetings and subsequent to that, there has been an open invitation for any landholders, whether individually or in a group, to further discuss the project with representatives of Bandanna Energy and SCC, including our technical specialists.</p> <p>As a result of this invitation, a number of meetings and further discussions have taken place with landholders in the area. These discussions have mainly focussed on monitoring of groundwater, air quality and noise, and some additional monitoring has taken place.</p> <p>During the preparation of the Supplementary EIS, direct contact has been made with all submitters, including directly affected and nearby landholders who made submissions, and an invitation to discuss the project, their submission to the EIS, and any other related issues, has been made. Further meetings and discussions have been held with a number of landholders regarding the project.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
				SCC is committed to developing positive relationships within the local community and being open and transparent in all of our communications and discussions about the project. If at any time you wish to discuss the project, please contact Neil Dale or Julie Boucher.
36.1	Chapter 10 - Air Quality	The impact of dust and particles in the air on the health of children and adults in the area. s.73 irrelevant information s.73 irrelevant information s.73 irrelevant information		Air quality assessment has shown that the project will not lead to significant impacts to air quality. Modelling results have ascertained that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations. In particular modelling results shown in Section 10.2.5.1 indicate PM levels within the air column are not expected to pose any significant health impacts to local residents. Nevertheless, appropriate mitigation measures will be implemented.
36.9	Chapter 8 - Surface Water	<ul style="list-style-type: none"> The EIS states that the threat of severe storms in the project area is expected to be low, and that these storms are confined to the coast. This is a ridiculous generalization as falls of over 400mm in a matter of hours have been recorded in the project area by local farmers. Potential flooding within the Springsure Creek area and its tributaries is to be considered relatively high. The area has seen record breaking floods in the last 3 to 4 years. The haul road proposed by the project runs through the Comet River. This river has also had record breaking floods in the past few years along with the closure of the Comet River Bridge. This project cannot be "flood immune" when it runs alongside one creek for 3km's and crosses six others. 		<p>The risk assessment has been based on the frequency and consequence of particular events. While it is acknowledged that severe events occur in the region, their relative frequency is significantly lower than many other regions throughout Queensland. Further clarification has been made in the final EIS relating to the risk rating of severe events.</p> <p>Risk assessments are based on likelihood and consequence to determine risk rating relevant to the Project. As such, the impacts of severe storms, due to their relative frequency and intensity to the Project, are considered low.</p> <p>A specific hydrological and hydraulic study of the proposed haul road crossing at the Comet River is currently underway.</p> <p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.</p>
36.4	Chapter 6 - Traffic and Transportation	<ul style="list-style-type: none"> The increase in light and heavy traffic is very concerning. s.73 irrelevant information - irrelevant information s.73 The road in its current form is not safe enough to accommodate the increase in traffic and also not wide enough to enable the safe passing by the bus with these heavy loads. 		<p>SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users. SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road Use Management Plan which will be reviewed regularly throughout the project to ensure it remains current.</p> <p>The Road Use Management Plan will outline how traffic will use the local roads, including the timing for deliveries, heavy vehicles, etc. Stakeholders including the local School Bus Committee will be consulted in the further development of this plan to best manage any potential conflicts between school buses and mine related traffic.</p>
36.5	Chapter 6 - Traffic and Transportation	<ul style="list-style-type: none"> The Glenorina School Bus run operates from the hours of 7:30am to 8:00am and 3:30pm to 4:30pm. There is numerous stops along the Glenorina Road to pick-up and offload children. At any one time there are upwards of 20 children on this bus. 		As noted above, the school bus committee will be consulted in the design of upgrades to local roads and the development of the Road Use Management Plan.
36.6	Chapter 6 - Traffic and	<ul style="list-style-type: none"> The Glenorina Road / Milroy Downs Road / Wyntoon Road intersection in its current form is a danger to motorists. The 		As part of the upgrade of local roads to be used for mine access, intersections will be upgraded where required to improve safety for all road users. Where required, improved signage will also be installed to warn

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	Transportation	bend in this intersection is a hazard, especially to any one traversing this road that has not done so before. This intersection is also a school bus stop, which has no signage to inform motorists of this.		motorists of potential hazards, including school bus stops.
36.8	Chapter 4 - Climate	<ul style="list-style-type: none"> The EIS states that the threat of severe storms in the project area is expected to be low, and that these storms are confined to the coast. This is a ridiculous generalization as falls of over 400mm in a matter of hours have been recorded in the project area by local farmers. Potential flooding within the Springsure Creek area and its tributaries is to be considered relatively high. The area has seen record breaking floods in the last 3 to 4 years. The haul road proposed by the project runs through the Comet River. This river has also had record breaking floods in the past few years along with the closure of the Comet River Bridge. This project cannot be "flood immune" when it runs alongside one creek for 3km's and crosses six others. 		<p>The risk assessment has been based on the frequency and consequence of particular events. Although severe events are acknowledged to occur in the region, their relative frequency is significantly lower than many other regions throughout Queensland. Further the MIA will be constructed and sited to minimise impacts associated with severe storms. From this point of view, there is a lower risk of severe storms impacting the MIA area.</p> <p>Although there have been records of floods within the Springsure Creek Area over the last 3-4 years, the historical records show that the extent of these floods has had a negligible impact on the actual MLA area, as such the risk scores are only for the MLA area and not the surrounding area.</p> <p>Potential impacts of the Infrastructure Corridor will be assessed under a separate approvals process as outlined in the EIS.</p>

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AgForce Queensland

Submission number	Topic	Comment	Recommendation / Suggestion	Response
37.1	General	<ul style="list-style-type: none"> The scope of the project is larger than originally anticipated. The initial TOR proposed the mine producing up to nine million tonnes per annum over a 25-30 year period with maximum staff at 300 during construction. The EIS outlines that the project is now much larger, with up to 11 million tonnes per year with two long walls in operation and a lifespan of 40 years. This blowout in the scale of the project leads to longer term and larger pressure on soil, water, air and other environmental impacts and obviously on co-existence issues and the longer term question of cropping in the vicinity of the mine. 	<p>Given the complexity of the project and its impacts on primary producers in the area AgForce believes these issues should have been addressed in the EIS so a more holistic plan of the project could be assessed by the community and the affected landholders in particular.</p>	<p>The change in description of the project between the ToR and the EIS reflects the development of the project. As project development progresses, the project description becomes more refined. The assessments undertaken in the EIS considered the scope of the project as presented in the EIS, and not the project as described in the ToR. The methodologies used for the assessment of potential impacts (such as groundwater, surface water, land, air quality, etc) are accepted methodologies that remain the same regardless of the size of the project.</p>
37.2	General	<ul style="list-style-type: none"> Development of significant infrastructure surrounding the project. Obviously the development of significant infrastructure to support the proposed coal project has a number of major impacts on the community. Rail load out facilities, water supply dams and pipelines, power infrastructure, waste disposal and other types of construction have impacts on the farming area, its natural resources (water, air, etc) and its impact on the community as these are developed. The omission of a number of these activities from the EIS is unreasonable, as they are a key part of the overall impacts of the proposal project and should be considered seriously in how they contribute to the whole of the impacts of the proposed project. 		<p>Springsure Creek Coal has consulted with the Department of Environment and Heritage Protection with regards to the appropriate assessment of the project and its components, including the separate approval processes for the mine and infrastructure corridor / train load out.</p> <p>As noted in the EIS, these approvals have been separated into three sections to:</p> <ul style="list-style-type: none"> Align with approvals under the Mineral Resources Act 1989 (Qld) (MR Act) for appropriate Mining Leases (MLs), which trigger separate environmental approval processes to the mine: <ul style="list-style-type: none"> - Application for a MLA to be made for the transport and infrastructure corridor under the appropriate section of the MR Act (section 316) - Application for a MLA to be made for the train load out facility under the appropriate section of the MR Act (section 234(1)(b)) Allow for a greater level of transparency to: <ul style="list-style-type: none"> Create opportunities to discuss infrastructure needs and placement with stakeholders prior to formal approval processes with State or Commonwealth governments Provide information about the mine and its potential impacts, opportunities and management strategies, in the public domain as soon as possible Align with the project development timeframe. <p>Any potential cumulative effects resulting from the project mine, infrastructure corridor, and train load out facility will be considered within the assessment of the infrastructure corridor and train load-out facility.</p>
37.3	General	<p>Data sets are inadequate to support a project of such significance. For example, air quality monitoring was done for only a period of eight days in one location, insufficient soil samples were taken, resulting in data that is not representative of the entire area. MLA and fauna surveys were also limited in their application</p>		<p>Subsequent to the EIS being prepared, additional field work has been undertaken, specifically regarding flora and fauna surveys, air quality and noise monitoring, soil surveys and land suitability assessment groundwater quality and level data collection. The results of this data collection have been included in updated assessments within the final EIS. It is considered the level of baseline information gathered is adequate to enable an assessment of the potential impacts of the project.</p>



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Submission number	Topic	Comment	Recommendation / Suggestion	Response
37.4	Chapter 5 - Land	<ul style="list-style-type: none"> Subsidence is one of the biggest concerns surrounding the project. The technical assessment undertaken by Strata Control Technology (SCT) to predict subsidence within the project area states in Appendix A4-2, Subsidence Report "that the subsidence predictions are our best estimate". Given the long term massive impacts that subsidence will have on the farming communities it is unreasonable to suggest that a best estimate is adequate. Furthermore, the fact that the EIS states that a Subsidence Management Plan will be prepared is completely unacceptable. This information needs to be provided up front in the EIS so producers can assess the plans and comment given the severity of the issue. 	<p>Given the complexity of the project and its impacts on primary producers in the area AgForce believes these issues should have been addressed in the EIS so a more holistic plan of the project could be assessed by the community and the affected landholders in particular.</p>	<p>The subsidence modelling has been undertaken using an internationally peer reviewed subsidence methodology which uses actual mines in Qld and NSW to which takes a conservative approach with the predicted subsidence representing a worst case scenario. This then provided the basis for the identification and assessment of potential impacts. The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided land.</p> <p>SCC is committed to maintaining or improving agricultural productivity on subsided land and has demonstrated this commitment by investment in the independent Agricultural Co-existence Research Committee which has been established to guide co-existence research aimed at:</p> <ul style="list-style-type: none"> Maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas; and Understanding community expectations and identifying strategies to minimise adverse impacts and maximise the social and economic benefits of the mining investment. <p>With longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), it will enable research to be applied and mining methods and agricultural practices to be refined to minimise impacts on agriculture and maximise agricultural yields. The benefits of this initial period of mining can then inform the development of management plans with other landholders prior to mining activities taking place on other properties.</p> <p>With mining not scheduled to take place on some properties for a number of years it is inappropriate to develop management plans based on current cropping regimes and farming practices, and without the benefit of the co-existence research and experience of mining having taken place on Den-Lo Park. Management plans will be developed with affected landholders on a longwall panel by longwall panel and paddock by paddock basis prior to mining being undertaken, taking into account farming practices at the time. The management plans will include measures for managing residual subsidence to minimise the impacts on agricultural practices.</p> <p>Further detail regarding the management of subsidence is included in Section 5.7.4 of the final EIS.</p>
37.5	Appendix A4-2 - Subsidence Report	<ul style="list-style-type: none"> Subsidence is one of the biggest concerns surrounding the project. The technical assessment undertaken by Strata Control Technology (SCT) to predict subsidence within the project area states in Appendix A4-2, Subsidence Report "that the subsidence predictions are our best estimate". Given the long term massive impacts that subsidence will have on the farming communities it is unreasonable to suggest that a best estimate is adequate. Furthermore, the fact that the EIS states that a Subsidence Management Plan will be prepared is completely unacceptable. This information needs to be provided up front in the EIS so producers can assess the plans and comment given the severity of the issue. 	<p>Given the complexity of the project and its impacts on primary producers in the area AgForce believes these issues should have been addressed in the EIS so a more holistic plan of the project could be assessed by the community and the affected landholders in particular.</p>	<p>Please refer to the response above.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
37.06	Chapter 8 - Surface Water	<ul style="list-style-type: none"> Flooding and hydrology issues. The data relied on for the flood assessment was inadequate. For example, the 2010 rain event data was more relevant to EPC 1221 and not EPC 891. Another example is in Appendix A4-5, 6.2.3 TUFLOW Model Results, Flood Levels, Depths and Velocities, Figure 6.4 provides an illustration of the 1000 year ARI extent of inundation surrounding the proposed MIA infrastructure area, the MIA illustrated is a different location to the MIA referred to within the body of the EIS. 	<p>Given the complexity of the project and its impacts on primary producers in the area AgForce believes these issues should have been addressed in the EIS so a more holistic plan of the project could be assessed by the community and the affected landholders in particular.</p>	<p>Any minor changes to the MIA are unlikely to have an effect on waterway flooding. The MIA has been sited on land which is above the 1:1000 ARI significantly reducing the potential for impacts associated with flooding unlikely. Further, infrastructure will be built to meet local industry codes which consider severe storms and cyclones, again resulting in a relatively low impact.</p> <p>The purpose of assessing the 2010 event hydrology (largest event on historical record) was to determine whether this historical event was greater than the 1000 year ARI design event as the larger of the two would determine the flood risks and constraints of the site. This was at the request of EHP. The 1000 year ARI was determined to be the greater of the two.</p> <p>Specific, historical rainfall events were not hydraulically modelled as part of the current study. Design events were simulated ranging from a 2 year average recurrence interval (ARI) up to a 1000 year ARI. These are statistical events and the range was selected to comply with current legislative requirements and to represent a large range of potential storm events.</p> <p>All Bureau of Meteorology rainfall records available at the time of the study, in addition to stream flow gauging were collected.</p>

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Department of Science, Information Technology, Innovation and the Arts

Submission number	Topic	Comment	Recommendation / Suggestion	Response
38.01	Chapter 8 - Surface Water	<p>Issue: Section 8.4 and subsection relating to the Water Quality Assessment</p> <p>A preliminary baseline water quality assessment was undertaken for the Springsure Creek Coal Mine Investigation area, over two sampling events (with a total of 12 data points both upstream and downstream collected so far). From the mapping presented in Figure 8-5, it does not appear that a water quality and quantity monitoring site has been placed at a location downstream of the proposed mine dams.</p> <p>It is necessary to include a site downstream of the major source of contaminants to receiving waters, in the flowing section of the waterways. It will also be necessary to design monitoring for Dam 2 and Dam 4 which are listed as being downstream of the mine discharges in other sections of the EIS</p>	It is recommended that baseline water quality assessments continue and be amended	<p>This submission was discussed between DSITIA, EHP and SCC on 1 May 2013 (as per minutes circulated between attendees).</p> <p>Additional surface water quality data has been collected at four locations (February 2013) and include the Springsure Creek Inflow to Den-Lo Park Dam, Upstream from the Project area on Springsure Creek, Upstream from the Project area on Station Creek and Upstream of the Project area on Unnamed Creek 4. Water quality data and parameters measured at these sites during this period include an extended suite of tested and measured parameters as outlined in the DNRM, Guideline Model Water Conditions for Coal Mines in the Fitzroy Basin. This additional data is presented in Chapter 8 of the EIS.</p> <p>Sampling at these sites is ongoing and data will be used to develop specific water Quality trigger values for the Project. This sampling program will be extended to include additional sites (potentially including locations used in initial sampling program) as necessary, and will form the basis of the Projects Water Quality Sampling Program. Data from this sampling program will also be used to develop site specific trigger values for the Project.</p> <p>No discharges are proposed as part of the Project except during major flood events, in which case contaminants will be diluted within receiving waters.</p>
38.02	Chapter 8 - Surface Water	Section 8.4.3.2 lists the indicators measured as part of the baseline water quality assessment for the Springsure project. This list is not comprehensive and should include all indicators listed in Tables 2 and 3 of the "Model water conditions for coal mines in the Fitzroy basin".	This list is not comprehensive and should include all indicators listed in Tables 2 and 3 of the "Model water conditions for coal mines in the Fitzroy basin". It is recommended that baseline water quality assessments continue and be amended	<p>As noted above, additional surface water quality data has been collected at four locations (February 2013) and include the Springsure Creek Inflow to Den-Lo Park Dam, Upstream from the Project area on Springsure Creek, Upstream from the Project area on Station Creek and Upstream of the Project area on Unnamed Creek 4. Water quality data and parameters measured at these sites during this period include an extended suite of tested and measured parameters as outlined in the DNRM, Guideline Model Water Conditions for Coal Mines in the Fitzroy Basin.</p> <p>(As discussed at meeting, the DNRM Guidelines were not released at the time of preparing the draft EIS, hence they were not referenced at that time.)</p> <p>Chapter 8 of the EIS has been updated accordingly.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
38.03	Chapter 8 - Surface Water	Section 8.4.4.2 Electrical Conductivity discusses the results obtained so far for EC. The conclusions made are not based on sufficient data or thorough investigation of the relationship between flow and EC for the relevant creeks. Far more data collected over a longer period of time and representative of various seasons and conditions will be required if the proponents wish to establish locally relevant water quality objectives for EC. Graphing EC vs. recorded stream flow at the time of sampling would be useful to inform this process.	Far more data collected over a longer period of time and representative of various seasons and conditions will be required if the proponents wish to establish locally relevant water quality objectives for EC. Graphing EC vs. recorded stream flow at the time of sampling would be useful to inform this process. It is recommended that baseline water quality assessments continue and be amended.	As noted above, additional surface water quality data has been collected at four locations (February 2013). Sampling at these sites is ongoing and data will be used to develop specific water quality trigger values for the Project. This sampling program will be extended to include additional sites (potentially including locations used in initial sampling program) as necessary, and will form the basis of the Projects Water Quality Sampling Program. Data from this sampling program will also be used to develop site specific trigger values for the Project. Surface water monitoring criteria are thus to be announced as per Chapter 18 – EM Plan.
38.04	Chapter 8 - Surface Water	Issue: Section 8.5.6 Stream Flows The median predicted decrease in stream flow is predicted to be up to 42% for local waterways. Very little consideration has been given to the potential impacts this may have on aquatic ecosystems downstream, including wetlands or semi-permanent or permanent pools in the receiving waters	It is recommended that potential impacts to aquatic ecosystem from reduced stream flow volumes are adequately assessment and presented in the SEIS	Information in relation to the aquatic ecosystems from reduced stream flows within and downstream of the Project area has been assessed in Chapter 12 - Ecology. This chapter identifies that it is not anticipated that the project will result in significant impacts to aquatic values.
38.05	Chapter 8 - Surface Water	Table 8-13 Potential impacts to surface water, clearly states that a no controlled release policy will be in place during the operation of the mine. Again under section 8.6.1 Cumulative Impacts the proponent states “However, this Project will not be undertaking controlled releases and may only discharge water during extreme high flow or dangerous events” In other section of the EIS the proponents mention that a strategy to undertake controlled discharges is incorporated in the water management (e.g. Section 18.5.4.9 Control Strategies). Inconsistencies of this nature are repeatedly observed throughout the EIS	The proposal needs to be clarified, and consistently presented throughout the EIS. It is impossible to assess the environmental risks posed by the proposal if there has been no decision as to how the water management will be undertaken. It is strongly recommended that a clear and consistent proposal is submitted in the SEIS. It is impossible for the administering authority to assess the proposal when conflicting statements are observed throughout the documents. How exactly will water management be undertaken on-site? All sections of the EIS need to be updated to ensure that a consistent message is presented throughout, in the text, tables and diagrams	The mine site water management strategy identified a water deficit, or shortage of water, for proposed operations. Water will therefore be piped to the site from a secured allocation. This plus rain water collected on site and groundwater removed from the mine working area will be recycled for operational uses. Using 86 years of historical rainfall data in a water balance model, dams have been sized to have no discharge during the 86 years of historical rainfall records to reduce the need for any potential uncontrolled discharges from the site. There are no proposed piped (controlled) releases from dams to the receiving environment. The "Manual for Assessing Hazard Categories and Hydraulic Performance of Dams" (DERM 2012) was used as a basis of design document. All mine water infrastructure will comply with release limits and conditions contained in any Environmental Authority issued by DEHP. A Water Management Plan will be required to be prepared and approved as a condition of any Environmental Authority. This Plan will detail measures for: use and movement of water for operations, water quality and quantity monitoring, and stormwater management, etc.

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
38.06	Chapter 8 - Surface Water	<p>Table 8-13 and 8-14</p> <p>During the information session presented on 12th April, the proponents mentioned that;</p> <ul style="list-style-type: none"> • No coal processing is proposed within the mining lease area; hence no tailings will be generated within the mining lease area (which is the subject of the current EIS process). • During construction, overburden is proposed to be re-used for the construction of roads and dams, where possible. • During operation, 100% of mined material will be exported from the site; hence, no overburden stockpiles will be required on the surface within the MLA. <p>In contrast to this Table 8-13 mentions that “Erosion and sedimentation during the operation phases is most likely to occur from stormwater runoff from the coal stockpile, MIA and ongoing minor earthworks...” Additionally Table 8-14 specifically identifies an environmental dam which is planned to receive run-off from the coal stockpile. What is the actual proposal?</p>	<p>It is strongly recommended that a clear and consistent proposal is submitted in the SEIS. It is impossible for the administering authority to assess the proposal when conflicting statements are continually encountered.</p>	<p>Reference to a coal processing plant has been removed from the final EIS as this is not required.</p> <p>Overburden from the construction of a cut and cover and the drift will be recycled to provide construction material onsite.</p> <p>No overburden will be stored on site in a waste rock or tailings storage facility.</p> <p>As discussed during meeting, Table 8-13 and Table 8-14 present impacts and their mitigation during different stages of the Project i.e. construction phase versus operations phase.</p>
38.07	Chapter 8 - Surface Water	<p>Issue: General Water Management Strategy</p> <p>There are major concerns regarding the plans for on-site water management for the Springsure Creek Coal Project. The repeated claim that discharges will only be of an uncontrolled nature presents a number of significant problems.</p> <p>The presented intent of the water management on site is to control excess water using uncontrolled discharges (which are modelled to be quite rare). However, the proponent admits that quite a high uncertainty remains in relation to the volumes of groundwater which will be encountered during this long wall mining operation, which may mean the models are not representative. This means that when the one single dam designated to contain mine-affected water from the underground operations is approaching capacity, continued pumping of mine-affected water from underground operations (estimated 1.5-3.7 ML/DAY, and potentially more) to the surface may cause a discharge. By definition this would not be considered an “uncontrolled” discharge, since on-site pumping would be causing this discharge. However, we question whether the proponents will cease underground mining operations to avoid a discharge under these circumstances (and wait until space becomes available to store more mine-affected water in the mine water dam). Given that the sizing of the mine water dam has been based on several layers of modelling (and the associated assumptions and limitations) we have concerns regarding this strategy.</p>	<p>It is better to manage discharges in a controlled fashion rather than identifying that uncontrolled discharges will occur but should hopefully not impact on downstream environmental values. Discharging controlled volumes of water to minimum flow triggers in the receiving waters represents a better environmental management strategy as a level of dilution and flushing is then assured. Of course, rainfall event/s can be so extreme as to cause uncontrolled discharge but in terms of managing water on-site where discharge has been identified as being required, then this should be managed in a controlled fashion.</p>	<p>Please refer to response above regarding water management. The proposal does not include any controlled discharges.</p> <p>The dams located on drainage lines are those that already exist in the Project area as used by landholders primarily for agricultural uses. Existing water practices within the Project area have been clarified within Chapter 8.</p>

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		<p>The mine water dam could be gradually filling up over a particular wet season (with high rainfall). This may be due to water falling directly over the mine dam footprint itself (and surrounding catchment, is this planned as a Turkey's Nest Dam?) but also due to the fact that when high rainfall is experienced on the surface, the levels of groundwater will also be expected to increase in the underground operation. As the level of water in the mine water dams approaches the spillway level, it may in fact be a relatively small rainfall event , or series of small rainfall events that trigger uncontrolled discharge/s. The assumption made by the proponent that significant dilution with receiving waters will occur during an uncontrolled discharge is not necessarily the case.</p> <p>Is the mine water dam a dam without any outside catchment? At the information session it was mentioned that certain dams were located on drainage lines, which dams?</p>		
38.09	Chapter 18 - EM Plan	<p>Issue: Section 12 Environmental Management Plan</p> <p>Figure 18-11 in the Draft EM Plan maps five wetlands identified through Queensland wetland mapping (which are also farm dams). From our mapping the lower reaches of Springsure Creek are mapped as Riverine RE (Regional Ecosystems) and there are additional wetlands relevant to the site. The proponents also mention a "wetland protection area 2.4 km to the east of the Project area along Springsure Ck". This is not currently mapped in the EIS. Downstream wetlands are also important to identify and consider given the changes to flows anticipated due to subsidence.</p>	<p>It is recommended the proponent clearly map all wetlands identified through Queensland wetland mapping both on-site and downstream. Identify potential impacts from anticipated water quality and quantity changes for each of these identified wetlands.</p>	<p>This figure has been updated.</p>
38.10	Chapter 18 - EM Plan	<p>Issue: Section 12.8 Mitigation Measures</p> <p>The proponents state in Section 12.8 Mitigation Measures 12.8.8 Accidental Release of Pollutants that "the redirection of all infrastructure area runoff to environmental dams" will occur, however this should be altered to read "the redirection of all mine affected run-off and mine affected waters are made to appropriately managed dams". No mention is made in this section of the mitigation measures and destination for groundwater inflows (one of the major concerns in terms of water quality and volumes).</p>	<p>It is recommended that the proponent specifically outline the mitigation measures for each and/or all types of mine-affected waters in Section 12.8.8.</p>	<p>This section has been reworded to clarify the meaning. Groundwater mitigation measures and inflows are addressed in Chapter 9 - Groundwater and Chapter 18 - EM Plan.</p>
38.11	Chapter 18 - EM Plan	<p>Issue: Section 12.8 Mitigation Measures</p> <p>The proponents state in Section 12.8 Mitigation Measures 12.8.8 Accidental Release of Pollutants that "The discharge of wastewater and stormwater will be similar to water quality of receiving waters and in accordance with the water quality objectives for the Comet River sub-basin" however we have found no evidence in the EIS that an assessment of the anticipated</p>	<p>Scientific justification of the above statement is required and should be presented in Chapter 8 –Surface Water (and appropriate appendices) and Section 12.8. The proponents should prepare and present an assessment of the anticipated water quality of all the various types of mine waters.</p>	<p>As noted above, a baseline water quality monitoring program is being prepared at present. This will be implemented and data gathered prior to construction. The findings of this additional monitoring will determine specific trigger values. Sizing of dams will ensure that any uncontrolled discharges resulted in highly diluted water being released that will not impact the system. This has been discussed in Chapter 8 - Surface Water.</p>

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		<p>water quality onsite has been undertaken. Without presentation of this estimated water quality it is unclear how this statement can be scientifically justified.</p>		
38.12	Chapter 18 - EM Plan	<p>Issue: Environmental Management Plan : Section 18.5.4.6 Potential Impacts on Environmental Values (page 18-84) The potential impacts to surface waters identified by the proponents during the operational phase are listed as: <i>“Altered catchment conditions and subsidence on the hydrology of waterways and drainage lines; and Stormwater runoff, erosion and contaminants from the CHP and MIA areas.”</i></p> <p>Yet in the groundwater section (page 18-85) a more descriptive assessment of potential impacts to surface waters is presented. <i>“Mine dewatering water will be stored in a dewatering dam on the eastern side of the MIA. Due to the quality (“poor”) of mine water, potential impacts to above ground ecosystems could result from uncontrolled discharge into the surrounding waterways...”</i></p> <p>In general however, the descriptions and assessment presented in this section of the EIS is not considered adequate. The ToR clearly require; <i>“Describe any cumulative impacts on environmental values caused by the project, in isolation and in combination with the proposed Arcturus Coal Mine and other known existing or planned development or sources of contamination.”</i></p> <p>and</p> <p><i>“Impact on environmental values: describe quantitatively the likely impact of the project on the identified environmental values of the area. The cumulative impacts of the project 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, address any requirements and recommendations of relevant state planning policies, environmental protection policies, national environmental protection measures and integrated catchment management plans.”</i></p>	<p>It is recommended that the proponents update Section 18.5.4.6 Potential Impacts on Environmental Values (Surface Water) and other relevant sections of the EIS to include impacts listed under “groundwater” but which actually pertain to “surface waters”.</p> <p>The proponents should also detail the potential impact to downstream environmental values in further detail, i.e. list the contaminants of greatest concern and assess potential impacts to identified EVs downstream outside of the mixing zone (quantitatively), from alterations to both water quality and quantity including for aquatic ecosystems e.g. farm dam wetlands, semi-permanent or permanent waterholes, Riverine regional ecosystems etc., irrigation and stock watering. Cumulative impact’s also needed to be assessed. This is required under the EIS ToR and has not been adequately addressed in the EIS.</p> <p><i>“Cumulative impacts on the environmental values of land (including agricultural land), air and water and cumulative impacts on public health and the health of terrestrial and aquatic ecosystems must be discussed in the relevant sections. This assessment may include air and watersheds affected by the project and other proposals, such as the Arcturus Coal Mine, competing for use of the local air and water sheds.”</i></p> <p><i>“Where impacts from the project will not be felt in isolation to other sources of impact, it is recommended that the proponent develop consultative arrangements with the Arcturus Coal Project and other industries in the project’s area to undertake cooperative monitoring and/or management of environmental parameters. Describe such arrangements in the EIS”</i></p>	<p>Section 18.5.4.9 Control Strategies for the management of surface water impacts has been updated to include monitoring of downstream discharges. Monitoring will account for all existing uses and values of water and adopt a risk based approach to management as appropriate.</p> <p>As discussed at meeting, the Arcturus Coal Mine project is on hold and thus cumulative impacts for this project need not be assessed as part of this EIS.</p>
38.14	Chapter 18 - EM Plan	<p>Issue: Environmental Management Plan : Section 18.5.4.7 Environmental Protection Objectives (page 18-85) The environmental protection objectives listed for water resources are scarce and apart from protecting agricultural use</p>	<p>It is recommended that a much greater emphasis is placed on site-specific assessment in regards to potential impacts and environmental protection objectives for surface waters.</p>	<p>As noted above, a baseline water quality monitoring program is being prepared at present. This will be implemented and data gathered prior to construction. The findings of this additional monitoring will determine specific trigger values appropriate to</p>

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		<p>the only objective listed is as follows: “Maintain chemical, physical and biological properties of existing water resources within acceptable parameters” There is no consideration of protecting water flow as a protection objective, and there is a wide leeway in how “acceptable parameters” could be interpreted. It would appear that very little time and consideration has been given to identify, and clearly assess that site-specific environmental values and environmental protection objectives for surface waters both on-site and downstream of the proposed site. This is a major concern in regards to this EIS. How can the objective be to maintain existing properties for surface waters when an inadequate assessment of local surface waters has been undertaken? If information is not currently available then the EPO’s should include to an objective to comprehensively assess the local surface waterways and aquatic ecosystems and detail the spatial location of all relevant EVs (mapping).</p>		the context of the Project.
38.15	Chapter 18 - EM Plan	<p>Issue: Environmental Management Plan: Section 18.5.4.8 Performance Criteria (page 18-85) The proponent lists the following Performance Criteria for surface waters: “ Compliance with the regulatory conditions outlined by the Project’s Environmental Activity (EA); Monitoring to be undertaken in accordance with outlined control strategies; Develop monitoring criteria including trigger values using site specific data ; Quantity of groundwater complaints from down gradient users”</p>	<p>The terminology is incorrect for EA, as this should read “Environmental Authority” rather than “Environmental Activity”.</p> <p>Amend EM Plan to remove reference to a performance criteria to “ develop a monitoring program and trigger values” and replace with a performance criteria to “adequately monitor and maintain water quality within receiving waters in order to meet the Water Quality Objectives (WQOs) for identified environmental values”.</p>	Section 18.5.4.8 has been amended as recommended.
38.16	Chapter 18 - EM Plan	<p>Issue: Environmental Management Plan: Section 18.5.4.9 Control Strategies (page 18-87) For the first time, the proponents mention anything about a controlled discharge. In all or most other sections of the EIS the proponents only refer to “uncontrolled” discharges. “Controlled discharges from dams (i.e. actively controlled discharges) will only be undertaken in the event water quality parameters are in accordance with the relevant guidelines” While we are not against the proposal of controlled discharges if designed in such a way that WQOs are adequately protected (i.e. with dilution specifically designed), this should not be the first and only mention of this water management option. There does not appear to be any EA conditions relating to controlled discharges</p>	<p>It is recommended that the proponent clarify the water management strategies as there is a general lack of consistency throughout the EIS and Appendices. Follow the advice above to undertake the planning of a controlled discharge. There does not appear to be any EA conditions relating to controlled discharges, if controlled discharges are to be considered further then further information and site-specific assessment will need to be incorporated in Chapter 8 – Surface Water, Site Water Management Plans and Site Water Balance, and detailed conditions proposed in the EA water conditions (refer to Model Conditions for Coal Mine in the Fitzroy for more guidance on this). The Technical guideline “Wastewater release to Queensland waters” (2012) should also be followed.</p>	As confirmed during meeting, the Project is not proposing any controlled discharges. As such, no draft EA conditions are proposed to manage this. Conditions to manage the event of an uncontrolled release are proposed at Condition D15, which includes quality objectives for monitoring and reporting requirements.

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38.17	Chapter 18 - EM Plan	<p>Issue: Environmental Management Plan: Section 18.5.4.9 Control Strategies (page 18-87)</p> <p>The proponents “Raw water will also be used to top up the mine dewatering dam to ensure there is enough water for underground mine use and stockpile sprays”</p> <p>This statement does not align with the stated aim to separate “clean” and “mine-affected water” on-site, where separation of these water types represents best-practice management. It is not best-practice to combine clean or raw water with contaminated waters (impacted by mining activities), as this in-effect increases the volumes of contaminated water onsite</p>	<p>It is recommended that this statement is removed from the Mine Water Management System section of Section 18.5.4.9 Control Strategies. The mine water management should clearly aim to keep “clean” or “raw” water separate from “dirty” or mine affected waters. This should be updated in Section 18.5.4.9 and any other relevant sections of the EIS.</p>	<p>All water within the MIA is classes as ‘dirty’ or “mine affected” water. Clean water is either that from outside the site that will be diverted around the mine site, or bought into the site. Bandanna Energy has purchased an allocation of 1,000 mega litres of water per year from Sunwater’s Nogoia–McKenzie Water Supply Scheme for use at the mine site. Water from this scheme will be piped to the site. The purchase will ensure the mine is self-sufficient and does not draw upon existing local water supplies and or aquifers.</p> <p>In the event that the dam does not contain sufficient quantities of water to undertake underground mining activities, water from the pipeline will be utilised as a supplement.</p>
38.18	Chapter 18 - EM Plan	<p>Issue: Section Environmental Management Plan: Section 18.5.4.9 Control Strategies (page 18-88)</p> <p>The proponents commit to developing a Water Management Plan (Water MP) under the Construction Environmental Management Plan (CEMP), and as part of this program they plan to develop: “Criteria will be developed with trigger values set at the 20th and 80th percentiles identified through baseline investigations which will be further undertaken prior to construction”</p> <p>No clear plans are presented in regards to how these “baseline investigations” will be undertaken. There is no presentation of the monitoring program design, indicators to be measures, QA/QC, etc. There is also no reference to the appropriate guideline documents.</p>	<p>It is recommended that the proponent state that the baseline water assessment and interpretation of water quality data will follow the appropriate guidelines including the DERM Monitoring and Sampling Manual, Queensland Water Quality Guidelines (QWQG, 2009), ANZECC guidelines, Model water conditions for coal mines in the Fitzroy Basin etc. As a minimum, but not limited to including;</p> <ul style="list-style-type: none"> • Measure for those all indicators listed in Tables 2 and 3 the Model water conditions for coal mines in the Fitzroy Basin (including both field filtered (dissolved) metals and totals metals). • When deriving local WQOs make sure included data is only collected from true reference sites (as per the definition in Section 4.4.3 of the QWQGs (2009)). It is not adequate to use data collected from locations downstream of discharging mines. • Include a measure or estimate of local stream flow at the time of each sampling event. The relationship between flow vs. EC should be investigated at local reference sites. • A minimum of 10 data points, but preferably 24 should be used and collected over a minimum of 12-18 months, and be representative of all seasons; • All data used to determine locally-derived trigger values should be presented in electronic format for review by DEHP or DSITIA <p>IMPORTANT NOTE: Reference to these documents, and the minimum requirements listed above should also be added to other relevant sections of the EIS which refer to future plans to undertake water and aquatic ecosystem health monitoring and WQO derivation</p>	<p>A detailed monitoring plan is currently being developed. Please refer to Chapter 18, Section 18.5.4.10</p>
38.19	Chapter 18 - EM Plan	<p>Issue: Section 18.5.4.10 Monitoring Surface Water</p> <p>Commitments are made to monitor at the Environmental Dams (EDs) and the proposed ongoing sampling locations (refer section 18.5.4.12 - EA) for both water quality and flow (subsidence impacts). There should also be ongoing monitoring of water</p>	<p>The issues listed should be addressed in the relevant sections of the EIS</p>	<p>Condition D21 provides for the monitoring of water storage quality.</p>

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		<p>quality in the mine-affected water dam also. There is repeated reference to “water quality levels which exceed the WQOs set out in the EA and Water MP, upstream (control) values will be compared to the water quality within and downstream of the Project area to determine if the exceedance is likely to be Project area specific”. There is no mention however of the sampling frequency or how this comparison will be undertaken. Strictly speaking it should be the median of test site data which is compared to the WQO. If weekly sampling is undertaken, a rolling median could for example be calculated and used for interpretation purposes.</p>		
38.20	Chapter 18 - EM Plan	<p>Issue: Section 18.5.4.12 Proposed Environmental Authority Conditions: Schedule D- Water Surface Water The proponents propose the following conditions; “Condition (D3) Waters within un-named creek 1 has the potential to be affected by storm water contaminated by the mining activities and therefore must be monitored at the locations and frequencies defined in the Table 18-24” Contaminated stormwater should not be allowed to run-off freely into receiving waterways and needs to be contained for treatment and/or for controlled discharges. Unnamed Creek 1 is stated to flow into Farm Dam 2 (Den Lo Park). Discharges to Unnamed Creek 1 are complicated by the downstream Farm Dam. What are the EV’s of this dam? Aquatic ecosystems, irrigation, stock watering? The proponent has not presented any information in regards to how the EV’s of this dam will be protected from mining impacts. Mine-affected water which is proposed to be discharged into dams is a far more complicated discharge scenario. No modelling or assessment of mixing zones has been presented in the EIS</p>	<p>It is recommended that proposed EA Condition D3 is altered and does not allow for the uncontrolled environmental discharge of mine affected water to receiving waters. Just because a creek is unnamed and is located in full or in part on the mine lease area does not mean that it should be considered part of the on-site water infrastructure (nor for on-site farm dam wetlands). The QWQGs clearly state that all waterways including highly ephemeral waterways are assigned a level of protection. We do support however the assertion that receiving waters monitoring is undertaken (as outlined in the second half of proposed EA Condition D3).</p> <p>Throughout the EIS, very limited information is presented regarding the locations of discharge points, relative to the receiving waterways, farm dam wetlands, riverine regional ecosystems etc. No modelling or assessment of the impacts of mine discharges on these waterways is presented. Given that discharge locations appear to upstream of farm dams, and discharge waters are likely to be trapped within these farm dam wetlands, a comprehensive understanding of the likely dilutions, mixing zones and wetland specific issues should be presented in the SEIS. If mine-affected discharges occur with high Electrical Conductivity (EC) into a poorly mixed receiving environment (farm dams) it is highly likely that stratification of waters will occur with higher concentration EC water falling to the bottom layers of the water column, and potentially adversely affecting biota within the benthic zone. Insufficient attention has been placed on these and similar issues. It is strongly recommended that thorough consideration, assessment and/or modelling is undertaken and presented in the relevant sections of the EIS</p>	<p>Farm dams and creeks will not be used to provide or store water as part of the Project. Any uncontrolled discharges during flood events to existing waterways from these dams will be via an spillway and in accordance with quality criteria presented in condition D15. There is no need to amend condition D3.</p>

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38.21	Chapter 18 - EM Plan	Issue: Section 18.5.4.12 Proposed Environmental Authority Conditions: Schedule D- Water Surface Water This mine is located in the Fitzroy Basin and yet the proponents do not refer to the "Model water conditions for coal mines in the Fitzroy basin".	It is strongly recommended that the proponent obtain and consider the "Model water conditions for coal mines in the Fitzroy basin". Deviations to these conditions are able to be proposed by the proponent however this needs to be adequately justified on a scientific basis. We could not locate any scientific justification for the proposed conditions regarding waters. Significant revision is required for the proposed EA.	Schedule D has been updated considering the Model water conditions for coal mines in the Fitzroy basin. New conditions have been presented and existing conditions updated.

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Comet Sustainable Farming Association

Submission number	Topic	Comment	Recommendation / Suggestion	Response
39.1	Chapter 4 - Climate	<p>The Climatic conditions recorded from a single weather station installed in July 2012 are not indicative of the climatic conditions for the catchment area.</p> <p>The Comet Sustainable Farming Association is a grower based community group that operates and maintains an extensive system of weather stations within the Comet River catchment. The Automatic Weather Station (AWS) network for the Comet River Catchment area was installed in 2006 for the purpose of providing landholders, their staff and spray applicators with current weather information to assist in making informed application decisions.</p> <p>A study was commissioned to determine the most appropriate location for each AWS in order to establish a system that was an appropriate representation of the varying terrain across the area. While the immediate benefits are evident is the use of actual nearby data on a daily basis, the archived historical data can be used to extract underlying weather patterns and behaviours. In keeping with the recommendations of the World Meteorological Organisation all AWS's have two annual maintenance checks for calibration, as well as regular general maintenance</p>	<p>The information collected from the newly installed Den-Lo Park site together with historical data from the Springsure and Emerald Airport weather stations should be correlated with the historical data of the Comet Sustainable Farming Association AWS to provide a more accurate dataset for this sub catchment region of the Comet River.</p>	<p>Bureau of Meteorology (BoM) weather station data has been used in the assessments. BoM data is used as it provides the most accurate data over a historic period of 80 years or more, with known consistent collection methods allowing for direct comparison between multiple stations. The climate models used provide estimates based on simulated data from baseline sources which assess the probability of weather affecting the site based on historical weather patterns and predicted changes to the site. Assessments of dust, surface water, local climate, etc were undertaken using modelling approaches which used the above data (and data from Emerald) as inputs and modelled impacts over a range of scenarios. The assessment is considered robust and adequate for the purposes of the EIS assessments.</p> <p>Notwithstanding the above, some discussions have been held with representatives of the Comet Sustainable Farming Association regarding access to climate data. Further discussions will need to take place to determine whether access to this data is cost efficient for SCC.</p>

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Golden Triangle Community Group

Submission number	Topic	Comment	Recommendation / Suggestion	Response
40.01	General	This Proponent has failed to comply with the finalised terms of reference. The Terms of reference have not been addressed in an acceptable form, in some cases they have not been addressed at all.	While it is our preference that this entire EIS be repealed due to its monumental failure to comply with the Act, in the event that the Proponent is given the opportunity to submit a supplementary EIS, this supplementary EIS must be made available for public scrutiny and comment.	It is our view that the EIS does comply with the Terms of Reference and all requirements have been addressed within the EIS.
40.02	Chapter 2 - Needs and Alternatives	<p><i>"Global coal demand is high and it is very likely that another new mine development would occur at another location, possibly with greater environmental and social impacts than the present proposal."</i></p> <p>This (possibly with greater environmental and social impacts than the present proposal) is an admission of the extent of impacts on the local environment and community within the Project area of the present proposal.</p>	<p>Given that there are no plans within the EIS to fully assess the impact of the Project;</p> <ul style="list-style-type: none"> - What measures have the Proponent used to quantify these "greater" impacts? - How is the Proponent able to measure the impacts of another new mine development at another location? 	The quote provided is a theoretical point and no assessment has been made to compare the present project against others in terms of environmental performance. However, given the assessment of potential impacts of this project, and the conclusions regarding the present project is not anticipated to result in any significant impacts, this is considered to be a valid statement.
40.03	Chapter 2 - Needs and Alternatives	<p>2.2.4 Alternative Water and Energy Supply Sources 2.2.4.1 Water Grid Supply</p> <p><i>"A reliable source of good quality water is required by the Project to enable the Project to operate. Up to approximately 1,247 megalitres (ML) per annum may be required during maximum production operations."</i></p>	This approximation for water requirements does not take into account the water needs of a coal processing plant.	No coal processing plant is proposed. Section 3.5.3 of the EIS states that the project is based on all run of mine coal being transported off site without the need for benefaction (processing). In the event that benefaction is required, this would be a dry process and not require any significant amount of water.
40.04	Chapter 1 - Introduction	<p>1.2 Additional Project Components not included within the EIS</p> <p><i>"the scope of this EIS does not include the assessment of the transport and infrastructure corridor or the train load out facility. These components of the Springsure Creek Coal Mine Project will be subject to separate approvals processes."</i></p> <p>The project is not viable without a transport and infrastructure corridor or a train load out facility.</p>	<p>There is reference to these additional components within the final Terms of Reference; therefore they must be addressed within this EIS.</p> <ul style="list-style-type: none"> - Why are the transport and infrastructure corridor and train load out facility not included within this EIS? - This associated infrastructure will have to traverse areas of SCL, therefore will have to meet the requirements of the SCL Policy. Why were these approvals not required prior to the release of the EIS or at the very least in conjunction with this process? - The scope of the Supplementary EIS must include the entire associated infrastructure required for the Springsure Creek Coal Mine as referred to in the final Terms of Reference. 	<p>SCC has consulted with the Department of Environment and Heritage Protection (EHP) with regards to the appropriate assessment of the Project and its components, including the separate approval processes for the mine and infrastructure corridor/train load out facility.</p> <p>These approvals have been separated into three sections to:</p> <ul style="list-style-type: none"> - Align with approvals under the Mineral Resources Act 1989 (Qld) (MR Act) for appropriate Mining Leases (MLs), which trigger separate environmental approval processes to the mine - application for MLA 70502 has been made for the infrastructure corridor under the appropriate section of the MR Act (section 316); and application for MLA 70501 has been made for the train load out facility under the appropriate section of the MR Act (section 234(1)(b)) - Allow for a greater level of transparency to create opportunities to discuss infrastructure needs and placement with stakeholders prior to formal approval processes with State or Commonwealth governments; and provide information about the mine and its potential impacts, opportunities and management strategies, in

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				<p>the public domain as soon as possible - Align with the project development timeframe.</p> <p>Any potential cumulative effects resulting from the Project mine and infrastructure corridor/train load out will form part of the latter's assessment and approval decision, as appropriate, as well as its mitigation proposals.</p>
40.05	Chapter 1 - Introduction	<p>1.2.1 Springsure Creek Coal Policies</p> <p><i>“SCC is committed to supporting and strengthening local community relations with landowners and interested parties who have interests within, or surrounding, the Project.”</i></p> <p>SCC has shown no commitment to strengthen relations with landholders which is clearly evident in the lack of community and landholder consultation. There has been very limited, and in some cases no consultation with the directly impacted landholders from SCC in regards to the EIS process.</p>	<p>More consultation is required and the appropriate government departments need to follow up and ensure that this has occurred.</p>	<p>Up until the public notification of the EIS consultation with landholders was focussed around individual meetings, predominantly associated with rehabilitation of previous drilling activity. Subsequent to this landholder engagement has continued, mainly on an individual basis through compensation discussions, restricted land identification and other EIS and Mining Lease related activities.</p> <p>A number of directly affected landholders attended a public information session in Springsure and many nearby landholders attended a similar session in Gindie. At these meetings, and subsequent to that there has been an open invitation for any landholders, whether individually or in a group, to further discuss the project with representatives of Bandanna Energy and SCC, including our technical specialists.</p> <p>As a result of this invitation, a number of meetings and further discussions have taken place with landholders in the area. These discussions have mainly focussed on monitoring of groundwater, air quality and noise, and some additional monitoring has taken place.</p> <p>During the preparation of the Supplementary EIS, direct contact has been made with all submitters, including directly affected and nearby landholders who made submissions, and an invitation to discuss the project, their submission to the EIS, and any other related issues, has been made. Further meetings and discussions have been held with a number of landholders regarding the project.</p> <p>SCC is committed to developing positive relationships within the local community and being open and transparent in all of our communications and discussions about the project. If at any time you wish to discuss the project, please contact Michael Gray or Carolyn Summers.</p>

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40.06	Chapter 1 - Introduction	<p>1.3.3 Key Features of the Project</p> <p>“The following features are assessed as part of this EIS, for which SCC is seeking approval:</p> <p>§ Potential future Coal Processing Plant (CPP); “</p> <p>The possibility of a Coal Processing Plant is not taken into consideration within the current MIA illustrated in Chapter 3 - Description of the Project. The possibility of a Coal Processing Plant is not taken into consideration when calculating total water requirements for proposed project. Refer to Appendix A4-5 Flood Assessment and Mine Water. Table 8.1 Estimated Mine Water Demands does not account for possible water needs for a Coal Processing Plant in calculations of water needs operating either a single or dual long wall.</p>		<p>Reference to a coal processing plant has been removed from the final EIS as it is indicated one is not required. However, in the event a CPP is required any additional approvals will be sought under a separate process at the appropriate time.</p>
40.07	Chapter 1 - Introduction	<p>1.3.6 Interrelated Projects</p> <p>“The Project is interrelated with a number of other external infrastructure projects which are not encompassed in this EIS assessment or approval process. The interrelated projects not included in this EIS are the:</p> <ul style="list-style-type: none"> - Transport and infrastructure corridor and train load out facility; - Workforce accommodation village; - Road upgrades; and - Water supply pipeline.” <p>The final Terms of Reference received 2 June 2011 requires that the EIS includes the construction of all the infrastructure listed above. This is an incomplete EIS – the interrelated projects (and infrastructure) listed above are major and essential components of the Springsure Creek Coal Project, it is not a viable project without this associated infrastructure.</p>	<p>This infrastructure will have a cumulative impact on the existing environmental features and must be addressed within this EIS process.</p> <p>There is reference to these additional components within the final Terms of Reference; therefore they must be addressed within this EIS. This is a significant portion of the project that has not been made available for comment.</p> <ul style="list-style-type: none"> - Why are these infrastructure projects not encompassed in this EIS? - Why has an incomplete EIS been released for public comment? - The scope of the Supplementary EIS must include the entire associated infrastructure required for the Springsure Creek Coal Mine as referred to in the final Terms of Reference. 	<p>As noted above, SCC has consulted with the Department of Environment and Heritage Protection (EHP) with regards to the appropriate assessment of the Project and its components, including the separate approval processes for the mine and infrastructure corridor and train load out facility. The rationale for the separate approvals is also outlined above.</p>
40.08	Chapter 1 - Introduction	<p>1.3.6.4 Water Pipeline</p> <p>“these allocations are assumed to be sourced from the Nogoa – McKenzie River system.” When an EIS is released for public comment the project should be well advanced in the planning stage – including a water management plan that can state where water will be sourced, how it will get to site, how much is needed and the costs associated.</p>	<p>If water is not available within the Nogoa-McKenzie River system what other options are available for the water supply?</p> <p>If water is available within the Nogoa-McKenzie system, where will the pipeline run and what additional approvals processes and negotiations must be undertaken?</p> <p>The supplementary EIS must include a completed Water Management Plan.</p>	<p>Bandanna Energy has purchased an allocation of 1,000 mega litres of water per year from Sunwater’s Nogoa–McKenzie Water Supply Scheme for use at the mine site. The purchase will ensure the mine is self-sufficient and does not draw upon existing local water supplies and or aquifers.</p> <p>The construction of the pipeline for the water supply will be subject to a separate approvals process. This process will commence shortly.</p>

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40.09	Chapter 1 - Introduction	<p>1.4.1 Consultation Undertaken and Issues Raised</p> <p><i>“Consultation and discussions have taken place with landowners in the vicinity of the Project area on a periodic basis since exploration commenced in 2009, and there has been a full-time field liaison officer based in Emerald since late 2011. A number of meetings and discussions have been held with landholders regarding exploration activities, however very limited consultation has taken place regarding the EIS.”</i></p> <p>Landholder consultation has been very poor regarding exploration activities (which began in 2007) and there has been very little consultation regarding the EIS. The landholders who will be directly impacted by the Project have had either very little or no correspondence with anyone from SCC, Bandanna Energy or even someone representing them for the purposes of gathering information for the EIS.</p>		<p>As noted above, up until the public notification of the EIS consultation with landholders was focussed around individual meetings, predominantly associated with rehabilitation of previous drilling activity. Subsequent to this landholder engagement has continued, mainly on an individual basis through compensation discussions, restricted land identification and other EIS and Mining Lease related activities. In engaging with landholders, particularly directly impacted landholders, we are very cognisant of the number of discussions taking place relating to compensation, exploration, rehabilitation, and on-site investigations, etc and the time impositions on landholders of those meetings and discussions. Invitations for discussions solely focussing on the EIS have been extended to landholders in recent weeks. A number of discussions and meetings have been held with landholders in the area regarding the EIS.</p> <p>Bandanna Energy is committed to developing positive relationships within the local community and being open and transparent in all of our communications and discussions about the project. If at any time you wish to discuss the project, please contact Michael Gray or Carolyn Summers.</p>
40.10	Chapter 1 - Introduction	<p>1.4.2 Public Consultation Program</p> <p><i>“A number of meetings and discussions have been held with landholders regarding exploration activities, however very limited consultation has taken place regarding the EIS. Directly affected landholders have been approached on a number of occasions to discuss the EIS.”</i></p>	Again, directly affected landholders, have not been approached to discuss the EIS either on an individual basis or as a group,	Please refer to the responses above.
40.11	Chapter 1 - Introduction	<p><i>“A number of landholders are members of the Golden Triangle Action Group which maintains a website with information about the perceived impacts of mining”</i></p> <p>There is nothing “perceived” about the impacts of an underground longwall mine – it is designed to collapse behind the longwall machine, subsidence is inevitable.</p>	Bandanna Energy is yet to provide anything other than a verbal assurance that they can successfully rehabilitate the subsided land - where is the written assurance? The supplementary EIS must include a completed Subsidence Management Plan.	<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity.</p> <p>Note that the following projects have investigated the effects of mining on agriculture: CARP Project No: C8018 EFFECT OF LONGWALL MINE SUBSIDENCE ON PLANT PRODUCTION ON CROPPING LAND D Hinchliffe, P Matthew and U Pillai-McGarry (School of Agronomy and Horticulture, University of Queensland, Gatton); H.B. So (School of Land and Food Sciences, University of Queensland, St Lucia); and D. Mulligan (Centre for Mined Land Rehabilitation, University of Queensland, St Lucia). This project studied the impact of Long Wall Mining Subsidence on wheat and</p>

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				<p>soybean production at the Kestrel Mine, Emerald, QLD. They measured germination and yield for winter wheat and germination for soybeans. Soil and moisture characteristics were also measured. The impact of subsidence on wheat germination was minimal, however, germinations were slightly higher on the pillar sites than both the subsided and un-subsided sites. There was no significant impact on wheat yield, soybean germination or on any of the soil or moisture characteristics.</p> <p>ACARP PROJECT C15013 MONITORING THE EFFECT OF LONGWALL MINE SUBSIDENCE ON NATIVE VEGETATION AND AGRICULTURAL ENVIRONMENTS Paul Frazier, Ross Jenkins, Tienieke Trotter; ECOLOGICAL AUSTRALIA</p> <p>Two landscapes were investigated using a whole of mine site technique including remote sensing, ground survey and traditional agricultural monitoring methods. The landscapes were at the Kestrel site in Emerald, QLD including a forage sorghum and an improved pasture and at Beltana in the Hunter Valley, NSW including an irrigated lucerne pasture and an unimproved native pasture. At each site a stratified sampling procedure was undertaken to ensure samples from non-mining, pillar, transition and longwall panel centre zones. Samples were collected via:</p> <ul style="list-style-type: none"> • Vegetative field sampling (quadrat based for biomass, plant species, percent vegetative cover, leaf area index, plant height) • Soil sampling (cores and pits for pH, EC, % moisture) • Proximal sensors (EM38 for topsoil electrical conductivity, Crop Circle for NDVI) • Satellite and airborne imagery (Airborne video, QuickBird and SPOT 5) <p>The soil sampling taken at the start of the project at Beltana and Kestrel showed minimal variation across all sites. For the sites already mined there were no measureable effects of Long Wall Mining Subsidence in the soil properties. There was no significant difference in the available biomass, measured by dry weight between the subsidence zones in the lucerne or native vegetation at Beltana. There was no significant difference in biomass between the mined and unmined areas in the sorghum crop. The remote sensing data collected at the Beltana site, used to assess change between longwall zones pre and post mining in the lucerne and native vegetation indicated there were no trends that indicate Long Wall Mining Subsidence had an impact on the vegetative biomass. Remote sensing images were used to determine changes between Kestrel areas which had been mined</p>

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				<p>compared with areas not undermined. There were significant differences between the longwall or contour zones, however, there were no temporal trends that indicate that Long Wall Mining Subsidence had an impact on the vegetative biomass. Throughout the duration of this project, no significant effect on agricultural production was found at either site.</p> <p>With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p> <p>With mining not scheduled to take place on some properties for a number of years it is inappropriate to develop management plans based on current cropping regimes and farming practices, and without the benefit of the co-existence research and experience of mining having taken place on Den-Lo Park. SCC will be seeking to work with landholders on an individual basis to develop surface management plans on a longwall panel by longwall panel and paddock by paddock basis prior to mining being undertaken, taking into account farming practices at the time. The management plans will include measures for managing residual subsidence to minimise the impacts on agricultural practices.</p>
40.12	Chapter 1 - Introduction	<p>1.5.1.2 Queensland Legislation Strategic Cropping Land Act 2011 “The Project area is within the Western cropping zone, central protection area and the SCL trigger area (Figure 1-6).” This is a very misleading statement - the Project is located wholly within the central protection zone and therefore should be afforded the highest level of protection under the Act. The SCL protection conditions imposed upon the Project include: - No open cut mining; and - SCC must take all reasonable endeavours to rehabilitate all impacts on the land from its coal mining operations (Section 290, SCL Act). And the remainder for Section 290 states: (4) The conditions are SCL Protection Conditions (Section 100) (5) This section does not limit or otherwise affect the power, under Chapter 3, part 4 to impose other SCL protection conditions for the authorities that are not inconsistent with the conditions. Section 100, SCL Act, states that SCL Protection Conditions</p>	<p>Bandanna Energy is not exempt from the SCL Protection Conditions and as such must not permanently alienate the land.</p>	<p>SCC has an exemption from the permanent impact restriction under Chapter 9, Part 3, Section 289 of the SCL Act. The exemption applies to any Environmental Authority application and any resource application for resource activities described within the EIS relating to EPC 891 (which MLA 70486 is wholly within). Section 290 of the Act sets out SCL protection conditions imposed on SCC pursuant to this exemption.</p> <p>Prior to any Environmental Authority or Resource Application, SCC must apply to DNRM for a protection decision in accordance with Section 95 of the SCL Act. This process is separate from the EIS assessment process which is undertaken by EHP. An Environmental Authority for the project cannot be issued without a protection decision having been granted by DNRM for the SCL.</p> <p>Further information regarding the SCL approval process is included in both Chapter 1 - Introduction, and Chapter 5 - Land</p>

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		<p>generally:</p> <p>1) An SCL protection condition may –</p> <p>(a) prohibit, limit or restrict the carrying out of the activity on all of or part of it: or</p> <p>(b) require the applicant to install and operate stated plant or equipment in a stated way within a stated period; or</p> <p>(c) require the applicant to do, or refrain from doing, anything else the chief executive considers is necessary or desirable to achieve this Act's purposes</p> <p>(d) require security (financial assurance) in favour of the State for the applicant's compliance with the following (the secured matters), as a holder of either or both of the proposed authorities if they are issued—</p> <p>(i) this Act;</p> <p>(ii) payment of any compliance action expenses;</p> <p>(iii) SCL protection conditions imposed.</p>		within the final EIS.
40.13	Chapter 1 - Introduction	<p>1.5.1.2 Queensland Legislation Strategic Cropping Land Act 2011 Other management measures include:</p> <p>§ Co-existence with existing land uses within and surrounding the Project area;</p> <p>§ Develop and implement management plans to reduce the potential for contamination of land, land degradation and subsidence; and</p> <p>§ Develop and implement an Erosion and Sediment Control Plan (ESCP) to ensure construction activities are being undertaken in accordance with best management practices</p>	<p>We have been unable to find any definition or explanation of what is considered to be co-existence between a resource company and an existing land use.</p> <p>- The term co-existence needs to be clearly defined and a benchmark established if this is to be used as a measure of management outcomes.</p> <p>Until the Erosion and Sediment Control Plan is made available for public comment we are unable to comment on the impacts such plans may have or the needs to further mitigate if necessary;</p> <p>- The Supplementary EIS must include a completed Erosion and Sediment Control Plan.</p>	<p>One of the aims of the Agricultural Co-existence Research Committee is to define co-existence with regard to this project to enable a baseline to be established prior to mining taking place. This will enable co-existence to be measured once mining starts and compliance with conditions of approval relating to co-existence to be monitored.</p> <p>Please refer to Chapter 1 - Introduction in the final EIS which provides a graphical representation of the environmental management process and at what point management plans are developed. A sediment and erosion management plan is developed once an Environmental Authority is granted outlining methodologies to be used to meet the conditions of approval relating to erosion and sediment control.</p>
40.14	Chapter 1 - Introduction	<p>1.5.3.1 Central Queensland Regional Plan and Planning Committee</p> <p>Priority Agricultural Areas (PAA) is ones of the key areas arising from the regional planning process. Operating in a PAA would require compliance with coexistence performance based standards (still to be developed). The Springsure Creek Project (mine and agriculture) could be an example of how to develop, apply and review coexistence performance based standards.</p>	<p>The discussion within the regional planning group has in no way been finalised and should not be referred to in this EIS.</p>	<p>The EIS has been updated to note that the CQ Regional Plan is still being developed. The information regarding the plan has been presented in the EIS for information only on the possible intent of government for the future. It is noted in the EIS that the Plan has no statutory effect until finalised and approved.</p>
40.15	Chapter 2 - Needs and Alternatives	<p>2.1.4.1 Economic Benefits</p> <p>Overall, total capital expenditure on mine development for the first longwall operation is estimated to be approximately \$800</p>	<p>There is a significant shortfall in the amount of capital required for the development of this project, how is the proponent proposing to fund this project?</p>	<p>It is not a requirement of the EIS to demonstrate financial capabilities.</p>

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		<p>million. Additionally, approximately \$400 million will be spent during construction and installation of the second longwall.</p> <p>Total capital expenditure for the Project is therefore \$1.2 billion. It is noted in Section 1.2, The Proponent – “Bandanna Energy is an Australian based company publicly listed on the Australian Securities Exchange (ASX), with a market capitalisation of AU\$166.5 million as of 21 January 2013.”</p>		
40.16	Chapter 2 - Needs and Alternatives	<p>2.2.1 No Development Scenario</p> <p><i>“In employment terms, approximately 585 direct jobs would not be realised as would many more indirect jobs and business expansion opportunities”</i></p> <p>The majority of these 585 direct jobs will be sourced from the existing labour pool of the local area, therefore other industry and business will lose employees.</p>	<p>Please provide more detail on the business expansion opportunities that would not be realised under the “No Development Scenario”</p>	<p>Section 2.2 of the EIS is in direct response to Section 2.2 of the ToR which requires an assessment of the impacts of the project not proceeding. With regard to positive impacts, such as employment, this is generally seen as lost opportunity. The assessment of a 'no development' scenario is a theoretical assessment that enables us to identify the potential opportunity costs of the project not proceeding.</p> <p>Further information regarding business expansion opportunities is included in Chapter 16 - Economics, in particular section 16.7.7 which discusses impacts of the project on business and industry, impacts on households, government taxes, industrial and commercial property, and the wider impacts on balance of payments. If the Project were not to proceed, then none of these potential values would be realised.</p>
40.17	Chapter 2 - Needs and Alternatives	<p>2.2.1 No Development Scenario</p> <p><i>“The avoidance of potentially adverse environmental and social impacts is the key advantage of not proceeding with the Project.”</i></p>	<p>Detail needs to be provided of what the potentially adverse environmental impacts of not proceeding with the Project may be – without this we are unable to comment or measure the advantage or otherwise of proceeding with the project</p>	<p>This is a theoretical assessment of the Project not proceeding. What this statement means is that if there is no development and the project does not proceed, then the impacts identified in the EIS would not occur. In regard to potential adverse impacts, this is therefore an advantage for the ‘no development’ scenario.</p>
40.18	Chapter 2 - Needs and Alternatives	<p>2.2.1 No Development Scenario</p> <p><i>“However, as set out within the other chapters of this EIS, no significant residual adverse environmental impacts are predicted as a result of the Project.”</i></p> <p>The information provided in multiple chapters within the EIS, for example in Chapter 5 Land: “5.5.1.3 Model Predictions The Project will result in a total of 7,050 ha of land being subsided within the Project area”, clearly indicates that there will be a significant adverse environmental impact as a result of this project. Subsidence over such a large area will result in serious adverse environmental impacts.</p>	<p>The subsidence is not a potential impact, it is an anticipated and expected outcome;</p> <ul style="list-style-type: none"> - How is this considerable change in the existing environment going to be managed so as to avoid any residual environmental impacts? - Who, how and what will measure these impacts? - What is considered to be a significant residual adverse environmental impact? 	<p>Assessment within the EIS demonstrates that subsidence is not a ‘serious adverse environmental impact’ and that the impacts of subsidence can be managed so as to maintain agricultural activities and maintain or improve agricultural yields. The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided land.</p> <p>The Project’s Environmental Management System will provide for a number of inter-related Management Plans which collectively will reduce the impacts of mining activity. Specifically the Subsidence Management Plan will set out measures for the prediction and monitoring of subsidence for each longwall panel before, during and post-its extraction. Management for</p>



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				subsidence could include a number of measures such as pre-emptive measures installed ahead of subsidence as well as rehabilitative measures installed post-mining.
40.19	Chapter 2 - Needs and Alternatives	“The Project is expected to co-exist with the on-going agricultural land use activities which dominate the area within and adjacent to the mine.”	The term co-exist needs to be clearly defined and a benchmark established if this is to be used as a measure (or an expectation) of management outcomes.	As noted above, one of the aims of the Agricultural Co-existence Research Committee is to define co-existence with regard to this project to enable a baseline to be established prior to mining taking place. This will enable co-existence to be measured once mining starts and compliance with conditions of approval relating to co-existence to be monitored.
40.20	Appendix A3 - Standard Criteria	<p>Standard Criteria: Table 1-1 Standard Criteria of the EP Act (j) any applicable site management plan;</p> <p>EIS Cross-Reference Although there is currently no applicable site management plan for the Project, the Project but does feature a comprehensive Chapter 19 - Environmental Management Plan (EM Plan). Specific site management plans are identified in the EIS and draft EM Plan for a range of environmental values. These plans are designed to manage potential environmental impacts outlined in the EIS and will be developed prior to construction and operation.</p> <p>Standard Criteria: Table 1-1 Standard Criteria of the EP Act (k) any relevant integrated environmental management system (EMS) or proposed integrated environmental management system;</p> <p>EIS Cross Reference Currently there is no applicable environmental management system for the Project; however, a comprehensive draft EM Plan has been developed and is included in Chapter 19 – Draft Environmental Management Plan. Springsure Creek Coal will implement effective and appropriate environmental management strategies throughout the life of the Project.</p>	This EIS cross-reference of the Standard Criteria clearly shows that at least two of the standard criteria have not been met.	The Environmental Management Plan (Chapter 18 of the EIS) provides the overarching strategy and plan for environmental management on site. The issues have been identified and a management approach defined within the EMP. Specific management plans will be developed prior to construction and management will be subject to monitoring and improvement as required.
40.21	Chapter 2 - Needs and Alternatives	<p>2.2.2 Alternative Locations of the Project *</p> <p>“The location of the Project is determined by the following factors: § SCC is the tenement holder of Exploration Permit for Coal (EPC) 891, located within the Bowen Basin which is one of the major coal basins of the world; “ Bandanna Energy hold other EPC’s located in major coal basins of the world. § “EPC 891 contains prospective coal seams within the Permian age Bandanna Formation; and” Information provided to the ASX clearly suggests that all EPC’s</p>	Details need to be provided of alternative localities for the Project – without such detail we are unable to comment on any feasible alternative.	The location of the targeted coal deposit governs the location of the proposed project. The target coal deposit is wholly contained within EPC 891 and any alternatives proposed need to be considered within the context of this constraint. Within EPC891 the project area is defined by the MLA which has been defined by existing geological conditions. In this context there are no alternative locations for the project.

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		<p>held by Bandanna Energy contain prospective coal seams. § “The mining lease application (MLA 70486) area equating to 10,736 hectares (herein referred as the Project area) is entirely contained within EPC 891. Coal seams targeted by the Project do not extend outside EPC 891.”</p> <p>Any mining lease application must be contained wholly within the relevant EPC.</p> <p>“Taken together, these factors preclude development of the Project at any other location. The location of the Project is fundamentally governed by the location of the targeted coal seam.”</p> <p>The factors listed above do not preclude the development of the Project at any other location – the Proponent has simply not taken into consideration any alternative geographic location for the project – it has only looked at areas within EPC 891. The Terms of Reference states “describe feasible alternatives, including conceptual, technological and locality alternatives to the project”. It is unacceptable that the finalised terms of reference has not been correctly addressed within the EIS.</p>		
40.22	Chapter 2 - Needs and Alternatives	2.2.2 Alternative Locations of the Project “Soil and landscape data were also collected to evaluate the existing quality of the land against the guidelines provided in the Strategic Cropping Land Act 2011 (Qld) SCL Act. The final results indicated that a total of 1,183 hectares (ha) of SCL currently exists within the Project area, with an additional 5,449 ha classified as ‘potentially SCL’.”	There is no consistency on the areas given for SCL, in Chapter 5 – Land, Table 5-14 Areas of SCL, Potential SCL and non- SCL within the Springsure Creek Project area, the total area classified as SCL is 1118ha.	<p>All references to SCL areas have been checked and any inconsistencies updated. Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been completed for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping has been carried out at a scale of 1:50,000 as recommended by DNRM to provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites.</p> <p>Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008.</p> <p>Results from this study will be used to determine the SCL suitability of the area and supplied to DNRM to inform the Project SCL Protection decision.</p> <p>On completion these results will be used to further develop</p>



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				management programs and plans for the Project. Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For lands which are deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.
40.23	Chapter 2 - Needs and Alternatives	2.2.2 Alternative Locations of the Project “no significant impacts are expected on these resources. As a result, it is predicted that the proposed mining activities can sustainably occur simultaneously with existing agricultural activities.”	What is considered to be a significant impact and how is this measured? How is it possible to predict that the proposed mining activities can occur simultaneously with the existing agricultural activities if there is no measure of a significant impact? The proponent has not detailed existing agricultural activities within the EIS and can therefore not quantify the above statement.	Within each appropriate chapter of EIS that addresses potential impacts (i.e. chapter 4 through 17), the significance of impacts is explained within the relevant section titled: Potential Impacts. Impacts documented as High or Medium are considered significant. Based on the proposed mitigation measures included for each potential impact, no residual impacts of a significant level are predicted. The project is assessed against Ecologically Sustainable Development Principles in Chapter 2, Section 2.3. This assessment considers the project as a whole (i.e. the results of all residual impacts from all other chapters) against the principles. At this level, it is the professional judgement of our environmental assessors that the project, inclusive of relevant mitigation and monitoring measures, would not result in any significant impacts. This judgement is based in part on examples of where mining is occurring coincidentally with agriculture.
40.24	Chapter 2 - Needs and Alternatives	2.2.2 Alternative Locations of the Project “Mining an alternative location under lower value agricultural land is therefore not considered as a necessary alternative.” The factors determining the location of the project were discussed previously in section 2.2.2 Alternative Locations of the Project * above – at no point was it proposed that the mine should or could be located under lower value agricultural land, suggesting that this alternative was not even given consideration. The terms of reference states “describe feasible alternatives, including conceptual, technological and locality alternatives to the project”, a location under lower value agricultural land is a feasible alternative that has not been investigated.	How and why is this not considered a necessary alternative - particularly given the terms of reference? There needs to be an investigation into this (the development of this project under lower value agricultural land) as a feasible alternative option.	As noted above, one of the primary constraints to identifying alternative locations for the project is the boundary of EPC891 which wholly contains the target coal seam. Any alternatives need to be assessed within this context. Surface impacts to agricultural land have been constrained to the smallest footprint practicable.
40.25	Chapter 2 - Needs and Alternatives	2.2.3.3 Assessment of Alternative Longwall Configurations “In development of the longwall configuration, SCC has sought to ensure that there is an appropriate balance between the economic returns and minimising impact on the environment and surrounding communities. The longwall design which has been selected meets these objectives, minimising impacts to environmental and agricultural areas whilst maximising resource	We are unable to comment on the benefit of this configuration over another as we have not had the opportunity to scrutinize any alternative designs.	SCC has considered numerous longwall designs. The selection of the layout presented in the EIS is considered the most efficient layout in balance as noted in Section 2.2.3.3.

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		<p><i>utilisation and importantly does not result in sterilisation of remaining coal seams and deposits."</i></p> <p>The longwall design that has been selected and illustrated in the EIS is the only configuration that has been made available for comment.</p>		
40.26	Chapter 2 - Needs and Alternatives	<p>2.2.3.4 Assessment of Alternative Access Options to Underground Mine Areas</p> <p>"For the present Project, drift access has been deemed most feasible. This decision is based on: § Ability to locate the drift entrance in paddocks that are of relatively low productivity within the Den-Lo Park property; "</p> <p>This statement contradicts information provided within other Chapters of the EIS. The following are just two examples that suggest the area where the drift entrance will be located in not of relatively low productivity; a. Figure 5-4 Existing land uses across the Springsure Creek Project area has the drift entrance area marked as irrigated cropping. b. Figure 5-10 SCL Assessment of the Project area has the drift entrance area marked as SCL.</p>	<p>Why has it been suggested that this is an area of relatively low productivity in one Chapter of the EIS and as highly productive in another?</p> <p>Where are the alternative access locations for the drift entrance?</p>	<p>This section has been reworded to better reflect the selection criteria. The criteria now reads <i>"ability to locate the drift entrance in an area of Den-Lo Park that would result in the least impact to agricultural productivity, water resources and site drainage"</i></p>
40.27	Chapter 2 - Needs and Alternatives	<p>2.2.3.5 Assessment of Alternative Locations for Mine Infrastructure Area</p> <p>"The location has been selected to place infrastructure on lower yield paddocks."</p> <p>Again this statement contradicts information provided in other Chapters of the EIS – see (a) and (b) above for examples of this.</p>	<p>Where are the alternative MIA sites located within the Project area?</p>	<p>As mentioned in Section 2.2.3.5, the MIA is located to reduce above-ground transport and handling of the coal. In this instance, the Den-Lo Park property is located in the northern part of the MLA with the MIA to be located in the north-eastern corner of that property. By locating the MIA as close to the proposed transport route for the coal it enables the above ground footprint to be minimised reducing the potential impact on SCL.</p>
40.28	Chapter 2 - Needs and Alternatives	<p>2.2.3.5 Assessment of Alternative Locations for Mine Infrastructure Area</p> <p>"The overall MIA footprint has been reduced as far as practicable (less than 60 ha) to minimise the overall land-take of above-ground infrastructure." The reported area for the MIA is different throughout the EIS, examples include:</p> <p>a. Appendix A4-3: Visual Amenity Report, 2. Project Description, it is stated that "the facilities will be located over an area of 115ha" b. Chapter 5 Land, 5.4.5.6 Cut and cover Excavations, it states</p>	<p>Check consistency</p>	<p>The Mine Infrastructure Area will occupy 60 ha of land. All references in the EIS Chapters have been checked and any inconsistencies corrected.</p>

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		<p>“Mine Infrastructure Area (MIA) will occupy 60ha of land”</p> <p>c. Appendix A4-15: Social Impact Assessment Report, 3.3 Land Use, it states “Mine Infrastructure, stock piles and waste rock and water storage areas will occupy an area estimated at 40 hectares”</p> <p>d. Appendix A4-16 Economic Report, 5.7 Implications for Future Development, Mine</p> <p>infrastructure, the CHP, stock piles and waste rock and water storage areas will occupy an area estimates at 320 hectares”</p>		
40.29	Chapter 2 - Needs and Alternatives	<p>2.2.3.6 Assessment of Alternative Rejects Management Processes</p> <p>“ If the coal require beneficiation; however, then a coal processing plant will be required to remove the coarser fraction of any dilution. No fine rejects will be produced.”</p>	<p>If a coal processing plant is required there will be increased requirements for water, where will this come from? The supplementary EIS must address this in the completed Water Management Plan.</p> <p>There are no plans for where course rejects would be stored until such time as they were returned to underground within Chapter 3 - Description of the Project</p>	<p>No coal processing plant is proposed. Section 3.5.3 of the EIS states that the project is based on all run of mine coal being transported off site without the need for beneficiation (processing). In the event that beneficiation is required, this would be a dry process and not require any significant amount of water.</p>
40.30	Appendix A3 - Standard Criteria	<p>1.2 National Strategy for Ecologically Sustainable Development (NSESD)</p> <p>Table 1-2 Objectives and Principles of NSESD</p> <p>ESD Objective/Principle</p> <p>Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation</p> <p>EIS Cross Reference</p> <p>Through the EIS process Springsure Creek Coal has incorporated the management of environmental risks into the Project’s design; while mitigation measures have been developed and are provided in Chapter 18 – Hazard and Risk and Chapter 19 – Draft Environmental Management Plan. While potential impacts causing serious or irreversible environmental damage are not predicted to result from development of the Project, Springsure Creek Coal has the technical experience and financial support to establish, implement, and maintain controls needed to protect the environment as identified in Chapter 19 – Draft Environmental Management Plan.</p>	<p>This statement contradicts the information provided in multiple chapters within the EIS, for example in Chapter 5 Land, 5.5.1.3 Model Predictions, The Project will result in a total of 7,050 ha of land being subsided within the Project area.</p> <p>Subsidence over such a large area will result in massive irreversible environmental impacts. The subsidence is not a potential impact, it is an anticipated and expected outcome.</p> <p>- Where is the plan or details of how this environmental degradation will be managed or mitigated?</p> <p>- A supplementary EIS must include a completed subsidence management plan.</p>	<p>SCC acknowledged that progressive and predictable permanent subsidence will occur as a consequence of underground longwall mining. Assessment within the EIS does not demonstrate that subsidence will result 'serious and irreversible environmental damage'.</p> <p>Impacts of subsidence can be managed so as to maintain agricultural activities and maintain or improve agricultural yields. The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided land.</p>
40.31	Chapter 2 - Needs and Alternatives	<p>2.2.4.1 Water Grid Supply</p> <p>In Chapter 3 – Description of the Project, 3.6.3.1 Water Supply, it states that “for supplying raw water of with approximately 838 megalitres (Ml) per annum to the mine required during maximum operational capacity”.</p>	<p>The water requirements are significantly different from one Chapter to the next;</p> <p>How much water is required per annum during maximum production operations?</p>	<p>As shown in Table 3-8, water demand for dual longwall operation is 1247 Ml which is 'maximum production operations'. During single longwall operations water demand is 838 Ml.</p>



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40.32	Chapter 2 - Needs and Alternatives	<p>2.2.4.1 Water Grid Supply “Alternatives that have been investigated for supplying raw water to the mine have included:</p> <p>§ Onsite supply from dewatering and existing flood harvesting dams owned by Springsure Creek Property Holdings Pty Ltd located on Den-Lo Property; “</p>	<p>There are water licenses attached to the current flood harvesting (as a result of overland flow) on Den-Lo Park, these licenses are for agricultural use only, therefore this water is not available as an alternative water supply to the project.</p> <p>- What approvals has SCC sought to change the existing water licenses so that this water can be used as an alternate water supply for the Project? - If SCC are considering using this water from existing flood harvesting in the Project, where will water be sourced for the irrigation of crops?</p>	<p>The Project has recently confirmed purchase of a water allocation from Sunwater's Nogoia-McKenzie River system. The use of water from current farm dams was an option considered as a possible water supply during the development of the project concept and is no longer being progressed.</p>
40.33	Chapter 2 - Needs and Alternatives	<p>2.2.4.2 Mine Dewatering “The water balance for the Project indicates that there will be a water deficit for the Project (see Section 3.7.4.1)”</p>	<p>I am unable to find Section 3.7.4.1.</p>	<p>Reference to Section 3.7.4.1 was a typographical error. Please refer to Sections 3.6.3 and 3.6.4.</p>
40.34	Chapter 2 - Needs and Alternatives	<p>2.2.4.2 Mine Dewatering “Underground mines in Central Queensland often intersect aquifers that can produce water that the mine can use during its operations.”</p>	<p>These aquifers are utilised by existing landholders for both stock and domestic water supply. There is the real possibility of landholders losing their water supply as a result of the aquifer being drained during mine operation. The Supplementary EIS must address this issue of mine dewatering in a completed Water Management System.</p>	<p>Since preparation of the EIS, where we have been able to gain the consent of landholders, additional hydro census, groundwater level, aquifer properties and water quality data has been collected from properties and groundwater infrastructure maps updated. Additional data has been gathered from further drilling operations. Using the additional data collected, both the hydrogeological conceptual model and the numerical model have been updated. A revised groundwater report has been prepared along with a mitigation and monitoring strategy. Please refer to the revised Chapter 9 and Appendices 4-7a and 4-7b which are included on the enclosed USB.</p> <p>Based upon the assessments undertaken, it is unlikely there will be any impact on the quantity or quality of groundwater from existing bores.</p> <p>SCC will implement a groundwater monitoring program to monitor the impacts of mining activity on groundwater and proactively address any potential impacts. In addition, we are seeking to enter into discussions with landholders to enter into compensation agreements regarding impacts as a result of mining, including impacts on groundwater infrastructure.</p>
40.35	Chapter 2 - Needs and Alternatives	<p>2.2.4.2 Mine Dewatering “The proposed Water Management System (WMS) outlines that water produced from dewatering of the underground mine, as well as water collected from rainwater runoff from across the MIA, can and will be utilised on the Project.”</p>	<p>Dewatering of the underground mine is an admission that aquifers will be drained which will have a significant impact on existing landholder enterprises and the regionally significant ecosystem located along the Springsure Creek.</p>	<p>The EIS identifies potential impacts and mitigation measures to control for potentially significant impacts on groundwater in Chapters 9 - Groundwater, and Chapter 18 - EM Plan, specifically section 18.5. Based upon the assessments undertaken, it is unlikely there will be any impact on the quantity or quality of groundwater from existing bores.</p>

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				<p>Groundwater management measures can include: modification of longwall panels to reduce dewatering; possible reuse of dewatered groundwater in recharging aquifers; long term groundwater quality and quantity monitoring; installation of additional bores to improve monitoring capabilities; maintaining quality and quantity supply to landholders in the event bores are damaged and making good any bores.</p> <p>SCC will install long-term groundwater monitors at a number of locations around the site to monitor impacts on the groundwater system as a result of mining activities. Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>
40.36	Chapter 2 - Needs and Alternatives	<p>2.2.4.3 Onsite Flood Harvesting Dam Supply</p> <p>“Any usage of flood harvesting water will be carefully managed to allow co-existence of agricultural practices and mining.”</p>	The current farm dams have a regulated capacity which is only for use in Agriculture – this cannot be used for the mining project.	As noted above the Project has recently confirmed purchase of a water allocation from Sunwater's Nogoa-McKenzie River system and the use of water from current farm dams is no longer being progressed.
40.37	Chapter 2 - Needs and Alternatives	<p>2.2.4.4 SunWater Allocation</p> <p>“Discussions with SunWater hasse taken place to investigate options for a commercial agreement for supply from SunWater’s Fairbairn Dam, or other SunWater controlled water allocations.Sunwater has advised that although they are currently reviewing their forward demand projections for the region they do not currently have any water they control available.”</p>	How is this a feasible alternative water source?	As noted, the project has purchased an available water allocation from the Nogoa-McKenzie River system and a connection study has been completed. The construction and maintenance of a pipeline, pump stations and other required infrastructure is subject to relevant statutory approvals, including the provisions of the SCL Act as appropriate.
40.38	Chapter 2 - Needs and Alternatives	<p>2.2.4.5 Water Trading</p> <p>“these allocations are assumed to be sourced from the Nogoa – McKenzie River system.”</p>	<p>This EIS has been released for Public Comment and the Proponent is making assumptions on where water could be sourced from – more information is required before comment can be made on this as an alternative water source.</p> <p>All of the above suggested alternative water supplies, confirm that there is no definite supply of water for the project – the last two options (SunWater Allocation and Water Trading), if available, involve a lot of infrastructure and negotiations with land holders regarding access for a such infrastructure (eg. Pipeline), none of which has begun. What is the additional cost of these options and is this feasible?</p> <p>SCL surrounds the perimeter of the EPC, any infrastructure will have to pass through SCL, therefore, it will have to first satisfy and address the concerns of the SCL Act.</p>	As noted, the project has purchased available water allocations from the Nogoa-McKenzie River system. The construction and maintenance of a pipeline, pump stations and other required infrastructure is subject to relevant statutory approvals, including the provisions of the SCL Act as appropriate, and discussions with landholders and other stakeholders.

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40.39	Chapter 2 - Needs and Alternatives	<p>2.2.4.6 Alternative Energy Sources</p> <p>“Approval for the power supply is being sought through a separate EIS and is not part of the scope of the present EIS.”</p>	<p>An alternative energy source has not been suggested – only the use of diesel generators if the power line is not connected in time.</p> <p>The project is not viable without a power supply;</p> <p>- Why is the approval for the power supply not included within this EIS?</p> <p>- The power supply corridor will have to traverse areas of SCL, therefore will have to meet the requirements of the SCL Policy. Why were these approvals not required prior to the release of the EIS or at the very least in conjunction with this process?</p> <p>- The scope of the Supplementary EIS must include this associated infrastructure required for the Springsure Creek Coal Mine as it is referred to in the final Terms of Reference.</p>	<p>The power supply to the site will be via the infrastructure corridor. A separate approvals process for this aspect of the wider project is being undertaken as noted previously (refer response to submission number 40.04). An SCL assessment will be undertaken as part of that approvals process.</p>
40.40	Chapter 2 - Needs and Alternatives	<p>2.2.5 Alternative Accommodation</p> <p>“It is anticipated that the majority of the construction and operation workforce will be non- resident and will require accommodation close to the Project area.”</p>		<p>The statement has been amended to read - During construction, it is anticipated the workforce would originate from the local area and thus reduce any demand on existing accommodation requirements. A Material Change of Use approval has been gained from the Central Highlands Regional Council for the Workers Accommodation Village to accommodate a portion of the operational workforce.</p>
40.41	Chapter 2 - Needs and Alternatives	<p>2.4 Conclusion</p> <p><i>“The Project has been assessed as one that can sustainably co-exist with current agricultural and cropping activities on adjacent lands, and will result in little to no adverse residual environmental impacts.”</i></p> <p>It is impossible for the Proponent to make the above conclusion until</p> <ul style="list-style-type: none"> - A definition for what co-existence means is developed - A detailed assessment of current agricultural and cropping activities is undertaken - A definition for adverse impacts is developed. <p><i>“It is therefore important that the Project proceed to supply for these coal demands along with its anticipated social and economic benefits, as opposed to another potential project that will have greater environmental impact.”</i></p> <p>Until the Proponents have developed a detailed Subsidence Management Plan, Water Management Plan, a Noise and</p>	<p>The examples within the Central Highlands of once highly productive cropping land, now only suitable for grazing livestock are well known. Until the Proponent has developed a Subsidence Management Plan and made such available for public comment it is impossible to conclude that little to no adverse residual environmental impacts will occur.</p>	<p>One of the aims of the Agricultural Co-existence Research Committee is to define co-existence with regard to this project to enable a baseline to be established prior to mining taking place. This will enable co-existence to be measured once mining starts and compliance with conditions of approval relating to co-existence to be monitored.</p> <p>The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsidised land. We cannot comment on decision made regarding land management practices at other properties.</p> <p>Please refer to Chapter 1 - Introduction in the final EIS which provides a graphical representation of the environmental management process and at what point management plans are developed. Detailed management plans are not prepared until later project stages.</p>

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		Vibration Mitigation Plan, and Erosion and Sediment Control Plan, it is impossible to assess the full extent of the environmental impact this proposal will have.		
40.42	Chapter 3 - Description of the Project	3.2.2 Local Context “The operators of Den-Lo Park will continue to undertake farming on the property with the aim of maintaining or increasing agricultural production over the life of the mine and to ensure the successful co-existence of underground mining and agriculture.”	There is no Agricultural Plan in place outlining how the operators of Den-Lo Park will maintain or increase agricultural productivity. - How are the operators of Den-Lo Park proposing to maintain or increase agricultural production over the life of the mine? - How will the operators of Den-Lo Park ensure the successful co-existence of underground mining and agriculture? - The term co-existence needs to be clearly defined and a benchmark established if this is to be used as a measure of management outcomes.	The independent Agricultural Co-existence Research Committee will oversee research into co-existence of underground longwall mining and agriculture with the outcomes of this research being applied to Den-Lo Park. With longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research the prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.
40.43	Chapter 3 - Description of the Project	3.3 Key Construction Elements § Preparation of cut and cover for initial access to the coal seam: - Possibility of ongoing blasting to excavate additional construction materials from onsite quarry, if required”	There is not currently a quarry located on Den-Lo Park and the establishment of one would be a large increase in the footprint of the Proponent on SCL and further permanent alienation of SCL. - Where is the Proponent proposing to locate this quarry?	Quarry material may be sourced for construction of the MIA and future mine operational requirements using an onsite quarry. The majority of quarry material would be sourced from extraction of the cut and cover or drift, with any further requirements met within the proposed Project area. It is not expected that any off-lease sources of extractive materials would be required at this stage. This information has been added to the EIS (Chapter 2 - section 3.6.7). Detailed design work regarding quantities and sources would be determined following completion of the EIS process, in consultation with advisory agencies.
40.44	Chapter 3 - Description of the Project	3.3 Key Construction Elements There is a section in the Terms of Reference specifically relating to Lights. Final Terms of Reference for the Springsure Creek Coal Mine Project EIS, 4.2.2.9 Lighting “Assess the potential impacts of lighting during all stages of the project particularly regarding: • the effects of night operations, maintenance or increased vehicular traffic on residents • changed habitat conditions for nocturnal animals • the attraction of animals to lights at night • the effect of lighting on neighbouring farms that operate cropping machinery at night. Propose measures to mitigate or avoid all potential impacts due to lighting.”	I am unable to find detailed information regarding lighting for the Project anywhere in the construction elements or on the mine plan; - Where are the lights going to be located within the MIA? - How many will there be? - What will be the brightness and how far will this be visible? This section of the Terms of Reference has not been adequately addressed within the EIS. The supplementary EIS must address the potential impact of lighting on the existing environment.	There are three main types of lighting to be installed onsite, within the Mine Infrastructure Area (MIA). These are stockpile lighting, street lighting (for internal roads) and gantry/walkway lighting. There will also be specialised lighting of the emergency area, however this will only be used as required. The requirement for lighting is primarily driven by safety to ensure potential hazards onsite are visible. Although it is anticipated that some homesteads will have a direct line of site to the MIA the impacts from lighting are not anticipated to be significant due to distances between MIA and nearest homesteads. Where possible lighting assisted with the MIA will be directed to the area required minimising light spill into the surrounding environment. As stated in Section 5.7.8 (Chapter 5 of the EIS), all lighting will be designed, installed, operated and maintained in accordance with Australian Standard 4282:1997. This standard is intended to control the obtrusive effects of outdoor lighting. Lighting design in accordance with this standard will be undertaken at the detailed design stage, once an Environmental Authority is granted.

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40.45	Chapter 3 - Description of the Project	<p>3.4.4 Mining Methods and Equipment</p> <p>3.4.4.1 Longwall Mining</p> <p>The current mine plan has the MIA located on Den-Lo Park, which is located at the northern end of the MLA with the drift entry being located at this point. As the mine progresses this will make for a very long conveyor system to haul coal along for 30+ years through areas of already collapsed workings to the MIA and coal stockpile.</p>	<p>To avoid any unforeseen extension to the infrastructure of the project and additional ground workings constructed in subsequent years, we would like to see the Environmental Authority restricted to above ground infrastructure on Den-Lo Park only.</p> <p>- Is it possible to restrict the Environmental Authority of the Project to above ground infrastructure on Den-Lo Park only?</p>	<p>An Environmental Authority is required to address all activities within the scope of the project outlined in the EIS, this includes all activities within the MLA. However, the Environmental Authority can restrict the extent of certain activities within the MLA - such as the footprint of the MIA.</p>
40.46	Chapter 3 - Description of the Project	<p>3.4.4.1 Longwall Mining</p> <p>“Retreat rates for the Project are anticipated to be up to 120m per week, depending on the seam thickness and mine conditions.”</p> <p>In the Paper “Introduction to Longwall Mining and Subsidence” prepared by Mine Subsidence</p> <p>Engineering Consultants (Revision A, August 2007), it states “Typically, a long wall face retreats at a rate of 50 metres to 100 meters per week, depending on the seam thickness and mining conditions.”</p>	<p>The retreat rates suggested by the Proponent are far more productive than those suggested by Mine Subsidence Engineering Consultants;</p> <p>- What improved mining methods is the Proponent implementing that will result in such an increased retreat rate?</p> <p>- Is this retreat rate of up to 120m per week realistic?</p>	<p>The EIS presents a retreat rate of 120 m per week. This is based on current project mine planning in accordance with current mining practices. Rates greater than this are currently being achieved at other underground longwall mining operations in Australia.</p>
40.47	Chapter 3 - Description of the Project	<p>3.4.6.2 Workforce Skills</p> <p>“The composition of skills also varies in the type of mining undertaken (between above ground open cut mining activities and underground mining methods).”</p>	<p>The Springsure Creek Coal Project is an entirely underground mine;</p> <p>- Why is there a need for skills associated with above ground open cut mining activities?</p>	<p>The context to this section is the assessment of workforce skills and it seeks to highlight that, within the mining skills base, there is a difference between skills required for open cut and underground mining. As such, the workforce skills required for this project are different from those in open cut operations. No open cut mining is proposed.</p>
40.48	Chapter 3 - Description of the Project	<p>3.4.7 Workforce Accommodation</p> <p>“However, any demand for additional accommodation will be reduced as much of the construction workforce will be sourced locally and therefore anticipated to already reside nearby.”</p>	<p>This statement is completely contradicts the following statement from Chapter 2;</p> <p>2.2.5 Alternative Accommodation; “It is anticipated that the majority of the construction and operation workforce will be non-resident and will require accommodation close to the Project area.”</p>	<p>Reference in Section 2.2.5 to the construction workforce being predominantly non-resident has been removed. During construction, it is anticipated the workforce would reside within the local area and thus reduce any demand on existing accommodation requirements. Where any non-resident workforce accommodation is required, then several options are available including accommodating people within existing and planned accommodation within Springsure and Emerald.</p>
40.49	Chapter 3 - Description of the Project	<p>3.4.8.1 Recruitment, Education, and Training Operations and Decommissioning</p> <p>“Options being considered to provide increased opportunities for locals for employment include:</p>	<p>This will have the direct effect of encroaching staff from local farms, who are already struggling to compete with the resource industry for employees.</p>	<p>It is not the intention of SCC to actively recruit workers for the mine from the local agricultural sector. The Springsure Creek Project has two distinct parts - one being the mine, and the other being the Agricultural Project. Through the implementation of the Agricultural Plan, SCC will be seeking to identify education,</p>

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		§ A 'farming' shift or roster which enables farm workers to continue to work on their properties. This could include for example ensuring farm workers are not rostered during harvesting periods or other times of intensive activity; "		training and employment opportunities for people within the agricultural sector. For example, this could include opportunities to assist with co-existence research. The Local Content Strategy to be completed will also seek to engage with agricultural businesses in the potential provision of goods and services to the Agricultural Project.
40.50	Chapter 3 - Description of the Project	3.5.1 Mine Interface "The pushout capacity has been based on providing sufficient storage to account for coal haulage disruptions of annual average of up to one month per two years (but expansion may be required to cater for extreme climatic events)."	Local information would suggest that the inability to access the Comet River Flood Plain for only one month in two years is extremely optimistic. This could have a detrimental effect on storage capacity and therefore production for an extended period of time. The possibility of an expansion to provide sufficient storage to cater for extreme climatic events must be planned for and documented within the supplementary EIS.	It is acknowledged that more detailed investigations regarding accessibility across the Comet River Flood Plain will be undertaken as part of the approvals for the infrastructure corridor. The design of the MIA as presented in the EIS anticipates that from time to time longer periods of inaccessibility may be experienced and additional stockpiling may be required. This can be accommodated without encroaching outside the MIA.
40.51	Chapter 3 - Description of the Project	3.5.3 Product Processing 3.5.3.1 Coal Processing Plant "If the coal requires beneficiation; however, then a coal processing plant will be required to remove the coarser fraction of any dilution."	The coal processing plant is not included in the current plan of the MIA. There has been mention several times in the EIS of the potential need of a coal processing plant; - The inclusion of a coal processing plant in the planned MIA would require additional approvals and increase the water requirements of the whole project – why has the coal processing plant not been included in the current plans for the MIA? - This additional requirement for water must be addressed in the Supplementary EIS.	The Project is not anticipated to require a coal processing plant. Reference to this has been removed from the final EIS. Any addition of such would be subject to relevant statutory approvals.
40.52	Chapter 3 - Description of the Project	3.8.2 Rehabilitation and Decommissioning Principles 3.8.2.1 Ensuring Landform Stability "Land subsidence through underground longwall mining is typically predictable, planned, and immediate and the probability of unplanned subsidence events is negligible. The general topography is flat to rolling; therefore subsidence is unlikely to result in mass soil or land movement and erosion post-mining operations"	<i>"The subsidence at the surface does not occur suddenly but develops progressively as the coal is extracted within the area of influence of the extracted panel. In many cases, when the cover over the coal seam is deep, a point on the surface will be affected by the extraction of several adjacent panels".</i> (Mine Subsidence Engineering Consultants, Introduction to Longwall Mining and Subsidence. Revision A August 2007) Until further exploration is undertaken within the MLA to ascertain the existing soil structure, it is impossible for the Proponents to make any predictions regarding the subsidence events across multiple panels. The current general topography which is flat to rolling, will not be the post mining and subsided landform and cannot be used as a judgement for the likely or unlikely impacts of mass soil or land movement and erosion post mining. Until a detailed Subsidence Management Plan or Framework is made available for public comment we are unable to assess this conclusion.	The information presented within the EIS is based, in part, on experience of similar operations at other mines where subsidence has been demonstrated to be fully manageable and as identified in the scientific literature (Bauer 2008). The Subsidence Management Plans to be prepared with landholders on a longwall panel by longwall panel and paddock by paddock basis are intended to be adaptive to the proximate conditions of each longwall panel.
40.53	Chapter 3 -	3.8.3 Post-mining Objectives and Completion Criteria	The Current Land use (2009) figures (as provided by Fitzroy Basin	Subsequent to the EIS being prepared, a more detailed soils and

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	Description of the Project	“The current land use in the Project area is predominantly cropping interspersed with grazing and native remnant vegetation.”	Association -) are as follows: REFER TO TABLE IN ORIGINAL SUBMISSION The Cropping and Irrigated cropping (including reservoirs and channels) accounts for 72.4% of the whole EPC, yet there is no detail provided on the type of cropping or the variety of crops grown, in the area.	land suitability survey has been undertaken for the MLA. This more accurately identifies the current land use. This assessment will be submitted to DNRM to be taken into consideration during the SCL approvals process.
40.54	Chapter 3 - Description of the Project	“SCC intends to manage its operations, decommissioning and rehabilitation to ensure that the land is returned to land suitable for either, high value cropping, other agriculture activities such as grazing, or revegetated to meet conservation objectives where appropriate.”	SCC must adhere to the requirements of the SCL Act, they cannot permanently alienate strategic cropping land. The statement above is too broad and open ended, it is not acceptable that the land be returned to land suitable for either, high value cropping, grazing or conservation as suggested in 3.8.3. If the land is classified as SCL then it must remain SCL.	This statement has been made in the context of SCC seeking to work with landholders to develop management plans to maintain agricultural activity in accordance with landholder desires while co-existing with underground mining. SCC does not wish to have landholder decision making regarding future agricultural activity defined through conditions of approval for the project. The project has a 40-year life and it is expected that agricultural activities and practices will evolve in that period. We wish to work collaboratively with directly affected landholders to develop management plans that provide for the co-existence of underground mining and above ground activity in accordance with landholder wishes.
40.55	Chapter 3 - Description of the Project	3.8.5.1 Undisturbed Land “SCC will use revegetation to enhance the habitat values and carbon sequestration potential of undisturbed remnant native vegetation where this does not impact on cropping and can offset disturbance elsewhere”	As the proposed dual longwalls encompass the entire MLA area, is the Proponent suggesting offsets will be required within similar landscapes after the degradation of the significant regional ecosystem Springsure Creek? - Does this statement acknowledge that the proposed mitigation methods will not be successful?	It is not anticipated that offsets will be required as the impacts to vegetation associated with the Project are considered manageable, as such rehabilitation activities will be in place solely to provide a net benefit to the local flora and fauna communities and environment. In the event of vegetation dieback or loss however, rehabilitation programs will provide a means to reinstate the vegetation community impacted, offsets will also be considered. The development of an offset framework and consideration of offsets is required as part of the ToR for the Project. Rehabilitation of vegetation communities and offsets are further discussed in Chapter 12 - Ecology.
40.56	Chapter 3 - Description of the Project	3.8.5.2 Cropping Land “The Agricultural Co-existence Research Committee will inform the most appropriate mitigation and rehabilitation strategies. It is likely that re-contouring of the land surface will be required where subsidence detrimentally affects the water flows from irrigation and natural drainage. Depending on the level of subsidence post mining, the irrigation method in some areas may need to be altered from flood irrigation to pivot irrigators that can move over variable topography.”	Without a detailed Subsidence Management Plan it is impossible to assume what level of recontouring of land will be required or that irrigation, whether flood or pivot, will be an achievable outcome. - A detailed assessment is required of current land use, before the assumption that pivot irrigators are of an equal and acceptable land use. - A detailed assessment of current cropping practices and varieties of crops is required before the assumption that pivot irrigators are an equal and acceptable land use. The Agricultural Research Committee is not responsible for the mitigation and rehabilitation strategies – this responsibility	SCC will be seeking to work with directly impacted landholders prior to mining activities commencing on their properties to develop management plans specific to individual paddocks and longwalls that maintain or improve agricultural productivity. It is acknowledged that pivot irrigation may not be the most suitable in each case. At the time management plans are prepared, a detailed assessment will be undertaken of the landuse and cropping regimes. This along with the benefits of the co-existence research will enable the most appropriate mitigation and rehabilitation strategies to be identified.



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			remains with the Proponent. Until the Proponent produces a comprehensive Subsidence Management Plan it is not possible for anyone to make informed decisions on the most appropriate mitigation and rehabilitation strategies.	
40.57	Chapter 5 - Land	<p>The maps do not correlate:</p> <p>Figure 5-4 Existing Land uses across the Springsure Creek Project area The land use for Den-Lo Park is categorised as Irrigated cropping Figure 5-9 Mapped GQAL across the Springsure Creek Project area</p> <p>The land use for Den-Lo Park is categorised as Class C1 and C2. The GQAL description of Class C is Pasture land: Land that is suitable only for improved or native pastures due to limitations which preclude continuous cultivation for crop production; by some areas may tolerate a short period of ground disturbance for pasture establishment.</p> <p>Figure 5-10 SCL Assessment at the Project area</p> <p>The assessment of Den-Lo Park is a mix of SCL, Potential SCL and Non-SCL.</p>	<p>The Proponent have stated that they will return the land to its previous land use, from the information provided in these three figures it is very difficult to determine what the Proponent will establish as the current land use.</p>	<p>GQAL mapping is was based on the DERM 2010 data base. The assessment discussed in section 5.4.5.4 discusses discrepancies with the mapping and identifies much of the Project area as class A or B. The SCL assessment carried out as part of the EIS was a Stage 1 assessment. Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This more accurately identifies the current land use.</p> <p>Results from this study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision. On completion these results will be used to further develop management programs and plans for the Project.</p> <p>Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For land which is deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p>
40.58	Chapter 5 - Land	<p>5.3.3.4 Soil and Landscape Survey Parameters</p> <p>“Observation points were undertaken across the Project area (Figure 5-1)” “Detailed soil bores were completed across the Project area (Figure 5-1)”</p>	<p>Figure 5-1 Soil bore and soil observation locations, illustrates the soil observation sites and the soil borehole locations, it is obvious looking at this figure that there are not enough sample sites to suggest that the data is representative of the entire MLA. There is the suggestion that the location of soil bores was restricted by land access – this is completely incorrect, there has not been a single incident of a landholder refusing access for such purposes.</p> <p>The concern is that the data used is incomplete, resulting in information that has not adequately addressed the issue.</p> <p>- How is it possible to correctly validate the landscape characteristics of the MLA from such a restrictive data set?</p>	<p>As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This more accurately identifies the current land use. This assessment will be submitted to DNRM to be taken into consideration during the SCL approvals process.</p>
40.59	Appendix A4-1 Soil Results and SCL Reports	<p>5.3.3.4 Soil and Landscape Survey Parameters</p> <p>“Observation points were undertaken across the Project area (Figure 5-1)” “Detailed soil bores were completed across the Project area (Figure 5-1)”</p>	<p>Figure 5-1 Soil bore and soil observation locations, illustrates the soil observation sites and the soil borehole locations, it is obvious looking at this figure that there are not enough sample sites to suggest that the data is representative of the entire MLA. There is the suggestion that the location of soil bores was restricted by land access – this is completely incorrect, there has</p>	<p>The objective of the CDM Smith preliminary soil survey was to ground truth the desktop study of a previous MLA layout. As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This more accurately identifies the current land use. This assessment will be submitted to DNRM to be taken into</p>

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			<p>not been a single incident of a landholder refusing access for such purposes. The concern is that the data used is incomplete, resulting in information that has not adequately addressed the issue. - How is it possible to correctly validate the landscape characteristics of the MLA from such a restrictive data set?</p>	<p>consideration during the SCL approvals process.</p>
40.60	Chapter 5 - Land	<p>5.3.4.4 Strategic Cropping Land Assessment</p> <p>“Full details of the SCL assessment of the Project area are included in Appendix A4-1.”</p>	<p>The following are some of the issues regarding the data provided in A4-1 Soil Results and SCL Reports:</p> <p>a. The data sets are not representative of the entire MLA. Four of the soil borehole locations are actually outside the boundary of EPC 891.</p> <p>b. The study covers EPC 891, EPC 1221 and MLA 70461. This EIS is in no way related to EPC 1221, and MLA 70461 was rejected by the Minister for Natural Resources and Mines and is therefore irrelevant.</p> <p>c. Data used to make the provisional assessment of potential strategic cropping land was supplied by Bandanna Energy.</p> <p>d. The report from CDM states: “Complete coverage of the EPC and MLA was not achieved as permission to enter properties was refused in some cases”, this statement is completely incorrect and unfounded, there has not been a single incidence of any landholder refusing access to their property for such purposes.</p> <p>e. Figure 4. Springsure Creek Slopes, identifies nearly the entire area of EPC 891 as having slopes less than or equal to 3%, yet Table 4-1 Potential SCL excluded by application of Criterion 1, (Criterion 1 being slope), removes an area of 17 014ha or 41% of the EPC as not meeting the SCL Criteria for slope of less than or equal to 3%.</p>	<p>The SCL assessment carried out as part of the EIS was a Stage 1 assessment. As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This more accurately identifies the current land use. This assessment will be submitted to DNRM to be taken into consideration during the SCL approvals process.</p> <p>This assessment will also be used to further develop management programs and plans for the Project. Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For lands which are deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p>
40.61	Chapter 5 - Land	<p>5.4.5.5 Strategic Cropping Land</p> <p>“The final figures for SCL, potential SCL and non-SCL are provided below in Table 5-14. Figure 5- 10 provides a map of the SCL assessment at Project area. These SCL results only relate to the areas surveyed, further details of the SCL assessment of the Project area are included in Appendix A4-1.”</p>	<p>The Project area referred to Appendix A4-1 is MLA 70461, which is a different Project area (in size and shape) to that of MLA 70486. This EIS relates to MLA 70486.</p> <p>- Where is the SCL assessment of the Project area relating to MLA 70486?</p> <p>The full assessment of Strategic Cropping Land is located in Appendix A4-1 Soil Results and SCL Report. This assessment identified the areas of SCL, potential SCL and non-SCL, as shown in the following table;</p> <p>REFER TO TABLE IN ORIGINAL SUBMISSION</p> <p>The following table is the current data available on the areas (hectares) of potential SCL in the Springsure Creek EPC 891, (provided by The Fitzroy Basin Association (FBA)), and illustrates the actual area of Potential SCL and non SCL within the Springsure</p>	<p>The SCL assessment carried out as part of the EIS was a Stage 1 assessment. As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This more accurately identifies the current land use. This assessment will be submitted to DNRM to be taken into consideration during the SCL approvals process.</p>

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			<p>Creek EPC 891 area.</p> <p>REFER TO TABLE IN ORIGINAL SUBMISSION</p> <p>From this information provided by FBA it is clear that there is a considerable discrepancy regarding the area defined as non-SCL within the Springsure Creek EPC by the Proponent and the actual current figures available. This area of potential SCL within the Springsure Creek EPC equates to 80% of the whole EPC, as opposed to the Proponents assessment which suggests only 59% of the area is SCL or potential SCL.</p> <p>- The supplementary EIS must reassess the areas of SCL within EPC 891 and in particular the area within MLA 70486, which did not form part of the original SCL assessment undertaken by the Proponent.</p>	
40.62	Chapter 5 - Land	<p>5.5 Subsidence</p> <p>5.5.1.2 Subsidence Prediction Method</p> <p>"A technical assessment was undertaken by Strata Control Technology (SCT) to predict subsidence within the Project area (refer Appendix A4-2 for the complete report)".</p> <p>Appendix A4-2 Subsidence Report states "the subsidence predictions are our best estimate from the available data" and that "mine data provided by Bandanna Energy and used for the subsidence predictions".</p>	<p>A best estimate on subsidence predictions is not acceptable, there must be ground truthing and independent verification of this data. We need to see detailed onsite assessments of subsidence predictions.</p>	<p>Chapter 5 - Land section 5.5.1.2 has been amended to provide for the following limitation:</p> <p><i>"The modelling which has been undertaken to date represents a worst case scenario and as such provides the basis for determining impacts. All modelling approaches will have some element of inaccuracy, SCC has committed to basing management on worst case predictions, to insure the best outcomes. As such, the actual level of subsidence may be less significant than modelled and result in less severe impacts. Nevertheless the management approaches employed will be sufficient to mitigate these impacts and insure agricultural coexistence. These measures will be documented into the specific management plans (e.g. SMP) developed for the Project."</i></p>
40.63	Chapter 5 - Land	<p>"It should be noted the mine plan has since been amended and has been reduced in size."</p> <p>This statement invalidates any subsidence predictions made by Bandanna Energy. SCT Operations state in their report (located in Appendix A4-2 Subsidence Report, Springsure Creek 3D Subsidence Predictions, Executive Summary) "the reliability of these predictions relies on the closeness of the site characteristics to the empirical trends and requires that the extraction heights are realised, the mine plan remains unchanged and the pillar sizes are as planned"</p>	<p>The subsidence predictions have been done using the area and boundary of MLA 70461, therefore the predictions are not applicable to this particular EIS. The subsidence predictions must be remodelled using the correct area and boundary of MLA 70486 and the current mine plan.</p>	<p>MLA 70461 has a larger footprint than MLA 70486. As such, the subsidence predictions are based on an area much larger than the proposed mine footprint and are therefore more conservative. This has also enabled the identification of potential impacts of subsidence beyond the boundary of MLA70486.</p>
40.64	Chapter 5 - Land	<p>5.5.1.4 Tilt</p> <p>Tilt has been determined using a 3D subsidence model and is expected to range from 10mm/m (1%) to 25mm/m (2.5%).</p>	<p>There is no explanation of how this tilt relates to the existing slope of the land.</p> <p>- Will the post mining slope be no greater than 2.5% in total? Or, - Will the post mining slope be the current slope plus up to an</p>	<p>Section 1 - Introduction to the final EIS shows the environmental management framework for the project and at what stage various plans and management strategies are prepared. The subsidence management plan and framework are not required to be</p>

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			<p>additional 2.5% slope? If the post mining slope is determined by the latter (i.e.. current slope plus 2.5%), and the resulting slope is greater than 3%, SCL has been permanently alienated. The entire MLA is located within the SCL Central Protection Zone, and the exemption given to EPC 891 does not allow Bandanna Energy to permanently alienate SCL. The level of tilt resulting from subsidence is a major and potentially determining factor in the viability of this entire Project.</p> <ul style="list-style-type: none"> - Why are the Subsidence Management Framework and the Subsidence Management Plan not included with the EIS? - Does the Proponent have a Subsidence Management Plan? - Why has the Proponent failed to address the Terms of Reference? 	<p>submitted with the EIS. They will be developed once an Environmental Authority has been granted.</p> <p>Additional explanation relating to final slopes (tilt) has been included in chapter 5 - land of the final EIS. It should be noted that SCC are committed and restoring the landscape such that it meets all SCL criteria - including tilt/slope.</p>
40.65	Chapter 5 - Land	<p>The remainder of the information contained in 5.7.4 Subsidence coupled with statements such as (Chapter 1 Introduction, 1.5.1.2 Queensland Legislation), "SCC is committed to implementing measures to sustainably co-exist with ongoing agricultural activities and SCL. Control measures include the Project's above ground infrastructure for the life of the mine and the first six years of underground mining that will take place." (on Den-Lo Park, the property owned by Bandanna Energy), illustrates the fact that SCC do not know how they will manage the subsidence impacts of this projects.</p>	<p>We would like to see the Environmental Authority that is issued restricted to the Den-Lo Park Property for two reasons, both of which are not an adequate basis on which to base an Environmental Authority;</p> <ol style="list-style-type: none"> 1. The lack of a subsidence management plan, 2. The statement that the subsidence management plan will be worked out as Den-Lo Park is mined. 	<p>As noted above, an Environmental Authority is required to address all activities within the scope of the project outlined in the EIS, this includes all activities within the MLA. However, the Environmental Authority can restrict the extent of certain activities within the MLA - such as the requirement to prove co-existence of underground mining and agriculture prior to mining activity extending beyond Den-Lo Park. SCC is committed to co-existence and is seeking a condition to this effect.</p>
40.66	Chapter 5 - Land	<p>5.7.6.1 Topsoil Management</p> <p>"Additional topsoil (if required) will be sourced from local suppliers in the Project area."</p>	<p>This assumption raises two issues;</p> <ol style="list-style-type: none"> 1. Who are the local suppliers of topsoil in the Project Area, and 2. How will you source additional topsoil in an area that has been identified as SCL without permanently alienating the donor site? 	<p>Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This study has identified adequate topsoil within the project area. It is therefore not anticipated that additional topsoil will be required from local suppliers.</p>
40.67	Chapter 5 - Land	<p>5.6 Potential Impacts</p> <p>"An assessment has been undertaken and the level of potential risk attributed to each of the potential impacts determined."</p>	<p>The risk category attributed to the potential impacts in Table 5-16 Potential impacts associated with the Project, are completely unrealistic particularly when referring to Subsidence, Land disturbance, land degradation, Erosion and soil stability during the construction and operation phases.</p> <p>The impacts of subsidence, land disturbance, land degradation, erosion and soil stability will restrict the current land practices and therefore have a HIGH impact.</p> <p>High risk level impacts must not proceed until suitable mitigation methods have been adopted to minimise the risk.</p> <p>It is important to remember that the subsidence is real, it is anticipated, and it is an expected and planned for outcome of this project.</p>	<p>The risk categories result from an assessment of the frequency and consequence of particular events resulting in a permanent impact. With no mitigation or rehabilitation risk categories would be higher. However, as mitigation measures and rehabilitation will allow for current land uses to continue the risk category is lower. It is considered that the risk categories presented in the EIS are correct.</p> <p>More information regarding the risk assessment has been included in the final EIS.</p>

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			Self assessments for the risks associated with the potential impacts of the project are unacceptable. In absence of any sorts of management or mitigation plans what measures have been used to calculate these risk levels?	
40.68	Chapter 7 - Waste Management	7.6.3.3 Waste Separation and Storage "To facilitate the Waste Management Strategy, SCC will, prior to construction of the Project, develop a Waste MP that outlines locations for temporary waste storage facilities."	We cannot assess the efficiency or otherwise as there is no Waste Management Plan to assess. - The Supplementary EIS must include a completed Waste Management Plan.	Please refer to the diagram included in Chapter 1 - Introduction to the final EIS. This shows at what stage of the project various management plans are prepared. All management plans, including the Waste Management Plan will be prepared prior to construction of the mine. The Waste Management Plan developed will adhere to all, local, State and Commonwealth regulations in relation to the handling, processing, recycling, transport and dumping of all waste streams which may be generated.
40.69	Chapter 7 - Waste Management	7.6.3.4 Off-Site Waste Disposal "Their locations relative to the Project are represented in Table 7-5 and shown on Error! Reference source not found.."	Reference not included.	This error has been corrected.
40.70	Chapter 7 - Waste Management	"SCC is committed to working with CHRC to formalise an agreement on appropriate waste removal strategies."	An agreement of this sort should be formalised prior to publication of the EIS and form a part of the Waste Management Plan.	As part of development of the Waste Management Plan, SCC will liaise with CHRC to formalise an appropriate waste removal strategy. The format of this strategy will need to be mutually agreed upon by both SCC and CHRC. Negotiations in relation to waste management (and other project related matters) have already commenced with CHRC.
40.71	Chapter 7 - Waste Management	7.6.5 Waste Management Plan	There is no Waste Management Plan to assess in the EIS.	Please refer to the diagram included in Chapter 1 - Introduction to the final EIS. This shows at what stage of the project various management plans are prepared. All management plans, including the Waste Management Plan will be prepared prior to construction of the mine.
40.72	Chapter 8 – Surface Water	8.4.3 Field Assessment "A summer (wet season) field survey was conducted from 29 November to 7 December 2011, comprised of eight survey sites (Sites 1 to 8) located from within the Project area,"	An eight day field survey at eight sites for surface water assessments is not enough to enable the Proponent to draw conclusions that are reflective of the summer surface water characteristics.	A detailed surface water monitoring plan is currently being developed to provide a comprehensive baseline to be used in the preparation of management plans.
40.73	Chapter 8 – Surface Water	8.4.3 Field Assessment "A winter (dry season) field survey was conducted from 22 June to 23 June 2012 and comprised of four survey sites, two of which were sampled in 2011."	Similarly a two day winter field survey at four sites for surface water assessments is not reflective of the winter surface water characteristics. The Proponent must undertake surface water field assessments over a longer period of time and with increased survey sites in order to establish the characteristics of the surface water across the entire Project area.	A detailed surface water monitoring plan is currently being developed to provide a comprehensive baseline to be used in the preparation of management plans.

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40.74	Chapter 8 – Surface Water	<p>8.4.3.1 Site Conditions</p> <p>Table 8-6 Surface water survey site descriptions Station Creek,</p> <p>This table illustrates surface water flows of various creeks within the Project area in different flow conditions.</p>	<p>These photos have severely underestimated the volumes of water that move through the Project area in high flow conditions.</p> <p>REFER TO PHOTOS IN ORIGINAL SUBMISSION</p>	<p>Noted, these photographs provide a visual reference to the various creeks within the project area, they are not intended to represent peak flow conditions during a flood event. Further clarification of this has been included in the final EIS.</p>
40.75	Chapter 8 – Surface Water	<p>8.5 Flood Hydrology, Hydraulics and Mapping</p> <p>8.5.1 Mine Site Flood Assessment</p> <p>“A flooding assessment was undertaken for the Project area for the purpose of defining the existing flood behaviour as well as assessing potential impacts to the MIA and operations (refer to Appendix A4-5).”</p>	<p>In Appendix A4-5, we can see that Engeny Water Management undertook a mine site flood assessment (6. Mine Site Flood Assessment) “for the purpose of defining the existing flood behaviour as well as assessing the potential impacts to mine infrastructure and operation.” Some of our concerns with this assessment include:</p> <p>a) A single hydrologic model was developed for both the Springsure Creek EPC 891 and Arcturus EPC 1221 to predict the peak flow rates within both projects</p> <p>b) The December 2010 historical rain event was included which was mostly confined to the Comet River Catchment and therefore of relevance to EPC 1221 but not EPC 891</p> <p>c) The area and boundary of MLA 70461 was used instead of MLA 70486</p> <p>d) Figure 6.4 (A4-5 6.2.3 TUFLOW Model Results, Flood Levels, Depths and Velocities), “provides an illustration of the 1000 year ARI extent of inundation surrounding the proposed MIA infrastructure area.” The MIA illustrated in Figure 6.4 is in a different location to the MIA referred to, and on the Mine Plans within the body of the EIS.</p>	<p>The use of a single hydrological model is appropriate. Within the single hydrological model exists multiple individual catchments specific to a selected waterway.</p> <p>The design rainfall Intensity-Frequency Duration (IFD) data for various storm events were derived based upon the procedures outlined in Book 2 of Australian Rainfall and Runoff (AR&R) 2001 edition. Appropriate areal reduction factors were applied.</p> <p>The purpose of assessing the 2010 (largest event on historical record) event hydrology was to determine whether this historical event was greater than the 1000 year ARI design event as the larger of the two would determine the flood risks and constraints of the site. This was at the request of DEHP (formally DERM). The 1000 year ARI was determined to be the greater of the two.</p> <p>Specific, historical rainfall events were not hydraulically modelled as part of the current study. Design events were simulated ranging from a 2 year average recurrence interval (ARI) up to a 1000 year ARI. These are statistical events and the range was selected to comply with current legislative requirements and to represent a large range of potential storm events.</p> <p>All Bureau of Meteorology rainfall records available at the time of the study, in addition to stream flow gauging were collected.</p> <p>Note that ARI refers to “average recurrence interval” a statistical benchmarks used for flood comparison. ARI is the average value of the number of years between exceedances of flood events of a given magnitude (gauge height or discharge volume).</p>
40.76	Chapter 11 - Noise and Vibration	<p>Noise and Vibration deals with noise associated with MIA and operations but does not include any assessment of the impacts of noise from subsidence occurring within the Project area. The exclusion of the haul road and infrastructure corridor from within this EIS limits the scope of the reports on Noise and Vibration. It must be noted that this associated infrastructure will have a cumulative impact upon sensitive receptors and the existing environment.</p>	<p>The Supplementary EIS must include a complete Noise and Vibration Mitigation Plan that incorporates the whole Project, including the associated infrastructure.</p>	<p>Please refer to the diagram included in Chapter 1 - Introduction to the final EIS. This shows at what stage of the project various management plans are prepared. SCC will develop Noise & Vibration Management Plan, this will be implemented before construction starts, monitored and periodically reviewed and revised as necessary.</p>

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40.77	Chapter 11 - Noise and Vibration	<p>11.5.3 Predicted Noise Levels during Operation</p> <p>“With the exception of sensitive receptors, Springton Homestead and Den-Lo Park Homestead, the distances between the source of the noise and the receptor indicate that for the majority of mining activities, the noise level will be just audible above the existing environmental ambient noise.”</p>	<p>The operational noise is limited within this EIS to the MIA and fails to accommodate the cumulative impacts the haul road and infrastructure corridor will have upon sensitive receptors. It is a presumptive conclusion that noise levels will be just audible, particularly given the failure to include the cumulative impacts of the associated infrastructure.</p> <p>The Proponent fails to identify the sleep patterns within the project area. Assumption is made that sleep occurs in the night time. This does not take into account that farming operations can also occur on a shift rotation with a need for sleep during the daytime.</p>	<p>The assessment of potential environmental impacts associated with the proposed infrastructure corridor will take place under a separate approvals process. The scope of this forthcoming assessment will be determined through consultation with EHP but is likely to consider, amongst other issues, air quality, noise, vibration and visual amenity.</p>
40.78	Chapter 12 - Ecology	<p>Refer to Table 12-19 in the EIS - Potential impacts to ecological values at the study area.</p> <p>12.8.2 Habitat Connectivity</p> <p>“Indirect impacts to habitat connectivity may occur due to vegetation dieback resulting from subsidence. If subsidence does result in dieback, a revegetation program will be developed and implemented. Subsidence may also reduce connectivity along subsided creek systems within the Project area. In the unlikely event that connectivity along creek systems is impacted by subsidence the following measures to reinstate flow rates and direction will be initiated:</p> <ul style="list-style-type: none"> • Surface recontouring to reinstate catchment flows throughout catchments; and • Installation of sediment deposition traps and structures within subsided areas.” 	<p>This is a reactive approach to management strategies and is completely inappropriate within an EIS. This is a significant regional ecosystem that is wholly depended upon the Springsure Creek and its surrounding tributaries and most importantly the connectivity between those tributaries.</p> <p>- If the impacts (Table 12-19) are considered to be LOW, then why does the Proponent discuss the need for offsets of remnant vegetation values?</p> <p>- If the above mitigation strategies are a viable option, then why does the Proponent discuss the need for offsets of remnant vegetation values?</p>	<p>Offsets (as well as rehabilitation - see Section 12.8.2) are required to be discussed for in the event that mitigation measures do not prove sufficient to prevent habitat loss or decline in values. SCC takes a responsible risk management approach to managing potential impacts. While offsets are not required for the project and the risk of these being requires is low, we have demonstrated that we have mitigation and management strategies as part of a responsible risk management approach.</p>
40.79	Chapter - 14 Social Impacts	<p>14.2.2 Public Consultation</p> <p>“Interviews with property owners were limited to Den-Lo Park, as other landowners had requested group meetings and compensation for those meetings that was considered excessive.”</p>	<p>Directly affected landholders did request group meeting with Bandanna and payment for their time at these meetings in late 2012 when they had to negotiate agreements for access and compensation regarding unrehabilitated drill sites dating back to 2007. There was never any suggestion that these meetings were in any way associated with EIS discussion or consultation as, this agreement and these meetings took place well after consultation regarding the EIS was completed.</p>	<p>Up until the public notification of the EIS consultation with landholders was focussed around individual meetings, predominantly associated with rehabilitation of previous drilling activity. Subsequent to this landholder engagement has continued, mainly on an individual basis through compensation discussions, restricted land identification and other EIS and Mining Lease related activities.</p> <p>A number of directly affected landholders attended a public information session in Springsure and many nearby landholders attended a similar session in Gindie. At these meetings and subsequent to that, there has been an open invitation for any landholders, whether individually or in a group, to further discuss the project with representatives of Bandanna Energy and SCC,</p>

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				<p>including our technical specialists.</p> <p>As a result of this invitation, a number of meetings and further discussions have taken place with landholders in the area. These discussions have mainly focussed on monitoring of groundwater, air quality and noise, and some additional monitoring has taken place.</p> <p>During the preparation of the Supplementary EIS, direct contact has been made with all submitters, including directly affected and nearby landholders who made submissions, and an invitation to discuss the project, their submission to the EIS, and any other related issues, has been made. Further meetings and discussions have been held with a number of landholders regarding the project.</p> <p>SCC is committed to developing positive relationships within the local community and being open and transparent in all of our communications and discussions about the project. If at any time you wish to discuss the project, please contact Michael Gray or Carolyn Summers.</p>
40.80	Chapter - 14 Social Impacts	<p>14.4.5 Impacts on Property Owners</p> <p>“As discussed, the mine is not expected to cause a reduction in agricultural production and all directly impacted properties are expected to be able to continue farming.”</p>	<p>The Economic Assessment of the project suggests a different outcome, A4-16 Economic Report, Executive Summary; Adverse Impacts, “Farming Activity is expected to be able to continue on these properties, though available land area and production is likely to be reduced”</p>	<p>Available farm land will reduce with the construction of the Mine Infrastructure Area which is a proposed 60ha area on Den-Lo Park. Agricultural productivity from each farm, is expected to remain the same or increase. This will require, particularly for Den-Lo Park looking at ways in which existing productivity can be increased to offset the loss of land available for agricultural activity.</p> <p>The Springsure Creek Agricultural Plan, including the commitment to research, will benchmark existing agricultural productivity, investigate ways in which productivity can be maintained or improved while co-existing with mining activity, and monitor the implementation of measures to achieve the same.</p>
40.81	Chapter - 14 Social Impacts	<p>14.4.5 Impacts on Property Owners</p> <p>“However, the five property owners with land inside the Project area will potentially be impacted by underground mining operations as follows: § Disruption to farm operations during subsidence (approximately one week) and potential change in land management practices as a result of subsidence (e.g., different cropping regimes);”</p>	<p>This is simply incorrect. A report by Mine Subsidence Engineering Consultants titled “Introduction to Longwall Mining and Subsidence” (Revision A, August 2007), states; “The subsidence at the surface does not occur suddenly but develops progressively as the coal is extracted within the area of influence of the extracted panel. In many cases, when the cover over the coal seam is deep, a point on the surface will be affected by the extraction of several adjacent panels.”</p> <p>There are many variables that will determine the rate at which</p>	<p>Both statements are correct. Please refer to Section 5.5.1.1 in Chapter 5 of the EIS. This section states:</p> <p><i>... surface subsidence occurs progressively as the coal is extracted from within the longwall panel and the resulting void increases in size. As mining progresses, a point is reached within the panel where a maximum level of subsidence will occur. Despite mining continuing beyond this point along the panel, the level of subsidence will not increase. The subsidence effect at the surface occurs in the form of a wave, which moves across the ground at</i></p>



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			<p>subsidence occurs, including the timing and level of subsidence of surrounding panels. Given the proposed length of longwall panels in the mine plan and the mining schedule for completion of each panel (Chapter 3 Project Description, Figure 3-17 Springsure Creek Coal Mine layout and mining schedule.),</p> <p>- How is it possible that subsidence will only affect farm operations for approximately one week?</p>	<p><i>approximately the same speed as the longwall face collapses within the longwall panel ...</i></p> <p><i>Longwall mining is known for being able to predict both active and residual subsidence, with the majority of active subsidence occurring within a few days or weeks and residual subsidence occurring both concurrently with active subsidence and possibly continuing for up to two years (depending on the rate of mining)..."</i></p> <p>It is expected that farming operations can continue on the surface in areas where there is no direct mining underneath. Where mining is taking place and the 'active' subsidence is occurring over a period of one week, farming operations are likely to cease in those areas. It is expected that can recommence after the initial 'active' subsidence has occurred. It is acknowledged that farming practices in areas where subsidence has occurred may be modified, and these will be discussed with landholders on a paddock by paddock and longwall panel by longwall panel basis prior to mining activity taking place. The benefits of a number of years of mining and farming on Den-Lo Park will assist in developing management strategies to maintain agricultural productivity on subsided land.</p>
40.82	Chapter 15 - Health and Safety	<p>15.2.4 Surface Water</p> <p>"One major watercourse (Springsure Creek) flows through and two minor tributaries (Minerva Creek and Comet River) flow across the Project area."</p>	<p>The Minerva Creek and the Comet River are not minor tributaries and they do not flow across the project area.</p>	<p>The sentence has been amended to read:</p> <p><i>"One major watercourse (Springsure Creek) flows through and a further five watercourses traverse the Project area. Additionally, although not within the Project area, Minerva Creek and Comet River are both within a 20km radius"</i></p>
40.83	Chapter 15 - Health and Safety	<p>15.2.4 Surface Water</p> <p>"As the Project area is located in a predominantly rural location, it can be assumed that all homesteads use rainwater tanks for potable water supply."</p>	<p>This is grossly inaccurate and it is incorrect to make such an assumption.</p> <p>- Good community and landholder consultation is needed so that these questions can be asked of the people concerned and accurate information obtained.</p>	<p>The statement was made in the context of undertaking the air quality assessment and risk to health and safety of residents due to dust deposition potentially affecting drinking water supplies. By assuming that all homesteads use rainwater tanks we are taking a very conservative approach and assessing a 'worst case' scenario.</p>
40.84	Chapter 16 - Economic	<p>16.7.5 Implications for Future Development in the Area</p> <p>"The Study area is currently a key agriculture area, with beef production prevalent across much of the region. The Study area includes areas devoted to dry land agriculture and plantation with some areas designated as SCL."</p>	<p>This is incorrect - the area within the MLA is predominantly cropping, both irrigated and dryland with a small area of grazing for beef production, there are no plantations within the MLA area. We are concerned that statements such as these are deliberately vague and insinuate that the current land use is less productive than it actually is.</p>	<p>The Study area referred to in Section 16.7.5 refers to the study area for the Economic assessment, and not the MLA. This Study area is defined in Section 16.5.1 as encompassing the council areas of Central Highlands, Rockhampton, and Gladstone Regions. The statement in Section 16.7.5 is correct for this area.</p>
40.85	Chapter 16 - Economic	<p>16.7.8 Impacts of Local Property Values</p>	<p>What will be the impact on the value of agricultural properties in the immediate vicinity of the Project?</p>	<p>The Economic Report included as Appendix A4-16 to the EIS states in Section 5.11.2.2</p>

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		<p>16.7.8.2 Impacts on Residential and Rural/ Agricultural Property Values</p> <p>This section talks only of the impacts to residential properties, there is no reference made to Agricultural property values and what the potential flow on effects of the project may be.</p>		<p><i>"The construction and operation of the Project is likely to negatively impact on the demand for rural land in the immediate vicinity of the Project, according to consultation with rural agents in the Study Area. However despite this negative impact on demand, real estate agents in the Study Area reported minimal negative impact on actual sales values as a result of previous mining developments in the region. As a result, the impact of the Project on rural property values due to co-existing land uses is expected to be minimal and restricted to those landholders directly affected by mine site infrastructure."</i></p> <p>Compensation agreements will be negotiated with those landholders that are proposed to be directly affected by the project and any land valuation issues will be addressed as part of this process.</p>
40.86	Chapter 16 - Economic	<p>16.9.3 Agricultural Production</p> <p>"Avoid disturbance of areas designated as SCL wherever possible"</p>	<p>The majority of the project area is SCL – 80% of the Springsure Creek EPC is potential SCL. How is the Proponent proposing to avoid SCL?</p>	<p>The disturbance of SCL land is being avoided wherever possible through project design. Through project design innovations, the footprint of the Mine Infrastructure Area has been limited to a single area of 60 ha. While other areas of SCL within the MLA will be impacted by the project through subsidence, they are not proposed to be disturbed through any direct surface activity.</p>
40.87	Chapter 18 - Draft EM Plan	<p>18.1.5 Project Proponent</p> <p>The proponent currently has a 4 Mtpa allocation at WICET near Gladstone. The project is anticipated to produce 11 Mtpa at full production.</p>	<p>Where will the additional 7Mtpa be exported from?</p>	<p>SCC is investigating alternative options with a view of securing long term port capacity beyond its currently contracted 4 Mtpa WICET Stage 1 capacity.</p>
40.88	Chapter 18 - Draft EM Plan	<p>18.1.8.2 Private Landowners</p> <p>"Consultation and discussions have taken place with landowners in the vicinity of the Project area on a periodic basis, since exploration commenced in 2009. A number of meetings and discussions have been held with landholders regarding exploration activities. Directly affected landholders have been approached on a number of occasions to discuss the EIS, and invitations for both individual and group meetings have been extended to other landholders."</p>	<p>Landholder consultation has been very poor regarding exploration activities and there has been limited to no consultation regarding the EIS. Landholders who will be directly impacted by the Project, have had limited conversations and in some cases no discussion, with anyone from SCC, Bandanna Energy or even someone representing them for the purposes of gathering information for the EIS.</p>	<p>Up until the public notification of the EIS consultation was focussed on discussions with landholders impacted by previous exploration drilling activity where rehabilitation had not been completed. Subsequent to this directly affected landholder engagement has continued, mainly on an individual basis through compensation discussions, restricted land identification and other EIS and Mining Lease related activities.</p> <p>A number of directly affected landholders attended a public information session in Springsure and many nearby landholders attended a similar session in Gindie. At these meetings and subsequent to that, there has been an open invitation for any landholders, whether individually or in a group, to further discuss the project with representatives of Bandanna Energy and SCC, including our technical specialists.</p>

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				<p>As a result of this invitation, a number of meetings and further discussions have taken place with landholders in the area. These discussions have mainly focussed on monitoring of groundwater, air quality and noise, and some additional monitoring has taken place.</p> <p>During the preparation of the Supplementary EIS, direct contact has been made with all submitters, including directly affected and nearby landholders who made submissions, and an invitation to discuss the project, their submission to the EIS, and any other related issues, has been made. Further meetings and discussions have been held with a number of landholders regarding the project.</p> <p>SCC is committed to developing positive relationships within the local community and being open and transparent in all of our communications and discussions about the project. If at any time you wish to discuss the project, please contact Michael Gray or Carolyn Summers.</p>
40.89	Chapter 18 - Draft EM Plan	<p>18.2.7 Mine Interface</p> <p>“Coal will be carried from the longwall face via underground conveyors fed onto the drift belt stockpile conveyor with pushout capacity (maximum stockpile capacity) of 500,000t. The pushout capacity has been based on providing sufficient storage to account for coal haulage disruptions of annual average of up to one month per two years.”</p>	<p>What is the mitigation strategy incorporating the December 2010 rain event, where disruptions to the Comet River Flood Plain exceeded a period of months.</p> <p>Until the haul road and infrastructure corridor are processed through an approvals process, it is impossible for the Proponent to make such an assumption.</p>	<p>This will be addressed through the approvals process for the infrastructure corridor. Flood modelling will be undertaken under a worst case scenario which is worse than the Dec 2010 rain event.</p>
40.90	Chapter 18 - Draft EM Plan	18.3.6. Communications	<p>Consideration must be given to existing landholders use of GPS tracking devices for precision agriculture. Current systems are operating on UHF and VHF radio signals from strategically located base stations within the district and it is imperative that these signals are not interrupted.</p>	<p>Noted - Consideration will be made to existing landholder GPS uses.</p>
40.91	Chapter 18 - Draft EM Plan	<p>18.3.11 Tailings and Fine Rejects</p> <p>“potential impacts to groundwater are not expected due to the lack of connectivity between aquifers.”</p>	<p>The Proponent has provided no evidence that indicates an understanding of the connectivity between aquifers.</p>	<p>These impacts are discussed in the EIS Chapter 9 - Groundwater</p>
40.92	Chapter 18 - Draft EM Plan	<p>18.3.13 Rehabilitation and Decommissioning</p> <p>“Rehabilitation is defined as the process of making a former mine site safe, stable, and self sustaining” (DERM 2011).</p>	<p>The definition of rehabilitation for this project is more stringent given the location of the mine on SCL and the rehabilitation obligations attached to this legislation. The Proponent must return the land to its former productive capacity and they must not permanently alienate SCL.</p>	<p>As previously noted, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping was carried out at a scale of 1:50,000. This scale has been recommended by DNRM to provide an appropriate</p>

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				<p>scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. Results from this survey will be used to determine the SCL suitability's of the area.</p> <p>The data from the survey will also be used to further develop management programs and plans for the Project. Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For land which is deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p>
40.93	Chapter 18 - Draft EM Plan	<p>18.3.13.1 Principles</p> <p>"A landform with the same or similar land use capabilities and/or suitability it had prior to the disturbance, unless other beneficial land uses are pre-determined and agreed;"</p>	<p>Should the Proponent be unable to return the land to its predetermined land use, what are other beneficial land uses and at what stage are these pre-determined? Who will determine whether the Proponent can return the land to its predetermined use? Who will determine other beneficial land uses?</p> <p>At what point will these be agreed? Is this pre mine or post mining?</p>	<p>We have asked to be conditioned on co-existence making it a condition of an Environmental Authority that we demonstrate co-existence prior to mining activity extending beyond Den-Lo Park. As noted previously, the independent Agricultural Co-existence Research Committee will, among other things, develop a definition of co-existence by which performance will be measured. We will be required to report on progress in meeting the specified performance on an annual basis to state government as part of annual compliance reporting.</p>
40.94	Chapter 18 - Draft EM Plan	<p>18.3.13.1 Principles</p> <p>"Key features of the Agricultural Project are Land Investment Agreements, Coexistence Research and Land Management."</p>	<p>The Supplementary EIS must include detailed information of the Agricultural Project.</p>	<p>The Agricultural Project has the overall aim of maintaining and improving strategic cropping land which is impacted by the Springsure Creek Coal Mine Project. This will be achieved by implementing the Springsure Creek Agricultural Plan. The Agricultural Plan, like many of the management plans for the project, will be developed in more detail as the project develops.</p>
40.95	Chapter 18 - Draft EM Plan	<p>18.3.13.2 Post-mining Objectives and Completion Criteria</p> <p>"SCC will also: - Ensure that adequate funds are available to fulfil obligations and commitments for decommissioning and rehabilitation."</p>	<p>Until the Proponents have a fully developed and costed Subsidence Management Plan they are unable to calculate the level of funds required. Full costings will be required for the Proponent to meet the legislated requirements within the Strategic Cropping Land Act 2011.</p>	<p>Commitment for funding for decommissioning and rehab has been provided in Chapter 18 - EM Plan, pages 18-28. Under the SCL Act SCC will be required to rehabilitate any impacts to SCL. The full costing of rehabilitation cannot be known until the impacts are properly known, however SCC will be required to make sure that adequate funds are available.</p> <p>The Subsidence Management Plan SMP is currently being developed and will be finalised as part of developing the Plan of Operations. It will be implemented prior to construction commencing.</p>
40.96	Chapter 20 - Key Commitments	<p>Refer to Table 20-4 Commitments in the Land Chapter which refers to section 5.6.3 and 5.6.4 of the EIS</p>	<p>Sections 5.6.3 and 5.6.4 cannot be found within this EIS. It is impossible to comment on;</p>	<p>The incorrect references were a topographical error and have been corrected.</p>

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			<p>1. The sediment and erosion report management plan until the completed plan has been made available for public comment.</p> <p>2. The ability of the Proponent to reinstate agricultural land uses for each long wall until completed plans are made available for public comment.</p>	<p>As noted above, it is inappropriate to develop detailed plans for the reinstatement of agricultural activity on land that, in some cases, won't be impacted by mining for 20 years. Plans will be developed collaboratively with directly affected landholders prior to mining activity commencing to take into account farming practices of the time.</p>
40.97	Appendix A4-8 Air Quality	A4-8 Air Quality 6.1 Monitoring existing levels of particulate mater Monitoring was conducted for a period of eight days, between the 1-9 December 2011 at one site.	We are concerned that the baseline study period is inadequate and not indicative of true conditions. We are concerned that placement site for the monitoring has not produced a baseline reflective of the existing environment at the sensitive receptors.	<p>Subsequent to the EIS being completed, additional baseline dust monitoring has been undertaken. Air quality modelling undertaking has concluded that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations.</p> <p>Long term air quality monitors will be installed at a number of locations around the site. These monitors will be 'real time' meaning data from the monitors will be communicated to the mine site as it is collected enabling an immediate response to any issues raised.</p>
40.98	Appendix A4-10 Noise and Vibration	4.3 Local Meteorology "Noise propagation over long distances can be significantly affected by the weather conditions, mainly source-receiver winds and temperature inversions as both these conditions can enhance noise levels at sensitive receptors."	<p>There is an extensive system of weather stations within the catchment area and the data from these should be utilised to gain further information on wind, and temperature inversions.</p> <p>Modelling based upon this connective system of weather stations will provide a more complete representation of the existing local meteorology.</p>	<p>Bureau of Meteorology (BoM) weather station data has been used in the assessments. BoM data is used as it provides the most accurate data over a historic period of 80 years or more, with known consistent collection methods allowing for direct comparison between multiple stations. The climate models used provide estimates based on simulated data from baseline sources which assess the probability of weather affecting the site based on historical weather patterns and predicted changes to the site. Assessments of dust, surface water, local climate, etc were undertaken using modelling approaches which used the above data (and data from Emerald) as inputs and modelled impacts over a range of scenarios. The assessment is considered robust and adequate for the purposes of the EIS assessments.</p> <p>Notwithstanding the above, some discussions have been held with representatives of the Comet Sustainable Farming Association regarding access to climate data. Further discussions will need to take place to determine whether access to this data is cost efficient for SCC.</p>
40.99	Appendix A4-10 Noise and Vibration	4.4.2 Noise Sources "Figure 4-2 shows the location of the noise sources, as entered in the noise model"	There has been no noise source located in the area of the mine ventilation shaft during the construction phase. This will be an area of intense activity during the construction phase, and will continue for a period of more than two weeks. The resulting model as illustrated in Chapter 11 - Noise and Vibration, Figure 11-2 Construction phase noise contour plots, fails to consider the	As a short-term activity, the construction of the mine ventilation shaft is not required to be assessed. No surface construction work on the ventilation shaft will occur during the night time period and community consultation will be undertaken prior to the works commencing.

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			<p>true impact of noise on sensitive receptors, as the construction of the mine ventilation area has not been considered. During the construction phase the mine ventilation area is the closest to the marked sensitive receptors and therefore must be considered when modelling the impact of noise during this phase.</p>	
40.100	Appendix A4-10 Noise and Vibration	<p>5.2 Weather observations during the monitoring period.</p> <p>Monitoring occurred over a period of only eight days and the weather observations were obtained from the weather station in Comet street, Springsure. As stated above there is an extensive weather station network within the catchment area and the data from these should be utilised to gain further and potentially more relevant information.</p>	<p>We are concerned that the survey period is far too short to establish a baseline for the project area and that the location of noise receptors is not reflective of the existing environments of the sensitive receptors.</p> <p>We are concerned that the survey period was limited to a time of high rainfall within summer and that the surrounding ambient noise recording is not reflective of the existing environments of the sensitive receptors.</p> <p>A longer survey period is required to establish baseline data before the impacts of noise and vibration can be modelled and mitigated. The survey points used for the baseline study should be chosen as close as reasonable to the most likely sensitive receptors.</p>	<p>The assessment undertaken for the purposes of the EIS required only 7 days of monitoring at a receptor. Subsequent to the EIS being prepared, and in response to submitter concerns, additional noise monitoring has been undertaken thereby exceeding the EIS assessment requirements.</p> <p>Prior to construction commencing, SCC will install long-term monitors and undertake monitoring well in advance to develop a baseline for noise over a much longer period.</p>
40.101	Appendix A4-10 Noise and Vibration	<p>8.2 Controlling Noise at Source</p> <p>Suggested mitigation control is sequential start up of vehicles. Machinery and vehicles will all operate at same time so cumulative noise will remain high.</p>	<p>This is not an acceptable mitigation control method, as it does not mitigate or limit the level of noise expected.</p>	<p>This proposed mitigation measure is considered industry best practice and is observed at the majority of mining sites in the Bowen Basin.</p>
40.102	Appendix A4-10 Noise and Vibration	<p>8.4 Mitigation Recommendations</p> <p>VIPAC recommend that a full financial and technical study be undertaken to devise the best mitigation methods.</p>	<p>This study should have been conducted before the Noise and Vibration modelling was completed for the current EIS. An extensive baseline study is required in order to devise the impacts that noise and vibration will have on the current environment and the most appropriate mitigation methods to reduce impacts.</p>	<p>As noted above, prior to construction, SCC will install long-term noise monitoring devices and develop a more comprehensive baseline.</p>
40.103	Appendix A4-10 Noise and Vibration	<p>8.4 Mitigation Recommendations</p> <p>“Initial 12 months of operation, noise should be checked at sensitive receptors to ensure that Noise criteria is being met.”</p>	<p>This statement is reactive and cannot be considered as a mitigation recommendation. Whilst ongoing monitoring is essential to determine the impacts upon sensitive receptors, there should be a greater initial understanding of the existing environmental conditions and what impacts the project will have on these.</p>	<p>Long-term noise monitoring devices will be installed Bandana will carry out noise monitoring to ensure no nuisance. Pending landholder permission, additional baseline monitoring would be carried out at all sensitive receptors ahead of construction and operation commencing in order to further establish existing conditions against which any impacts can be identified.</p> <p>A routine monitoring program will be implemented during the construction and operation phase of the Project. Monitoring activities will be undertaken at selected locations at Springton and Den-Lo Park homesteads respectively, where noise emissions have been predicted to be exceeded during the operational phase.</p>

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40.104	Appendix A4-15 Social Impact Assessment Report	“As discussed in Section 8.1, Bandanna aims to provide permanent yield increases for those properties directly impacted by mining”	Such statements have no quantitative nature. What is the benchmark from which yield increases will be measured? How does Bandanna intend to achieve such yield increases? Is this yield increase pre or post subsidence? Will this yield increase be an expected outcome of the Subsidence Management Plan? Or the Agricultural Plan? Further information and planning is required so that the Proponent can actually quantify statements such as this.	As noted above, one of the roles of the Agricultural Co-existence Research Committee is to define co-existence by which a baseline can be established and performance can be measured. This baseline will be established as a pre-subsidence baseline. The definition of co-existence and how it will be measured (with regard to yields) will be included in the Agricultural Plan, incorporating the results of research to be undertaken. Individual management plans to be prepared in collaboration with landholders on a longwall panel by longwall panel and paddock by paddock basis will outline how this is to be achieved.
40.105	A4-16 Economic Report	3.4 Project Costs and Revenue Assumptions 3.4.3 Mine Closure and Rehabilitation Phase “Cost estimates for rehabilitation have not been developed at this stage, however, are considered to be immaterial to the overall Project economics. “	Until a detailed Subsidence Management Plan has been developed it is impossible for the Proponent to determine the costings that will be involved in the rehabilitation process of potentially approximately 7400ha of strategic cropping land.	Exact costs cannot be determined until subsidence actually occurs. However, investigation of mitigation measures utilised in other project has been used to provide indicative costs of individual techniques. Within the context of the overall Project revenue and expenditure, rehabilitation costs are acceptable.
40.106	A4-16 Economic Report	4.10 Value of Ecosystem Services “Valuation of the Project Area to ecological systems and ecosystem functions is not fully captured in commercial markets or values for this land. As such, evaluating a relevant contribution of this land for ecosystem services from a monetary perspective is complex and requires significant research into a range of factors, such as land quality, ecosystems represented within the area and ecosystem connectivity. “	A case study was done on Arcturus Downs to demonstrate the benefits of wetlands in improving farm management and incomes, and the farm practices that contribute to wetland health. One non-market valuation survey suggested that Queenslanders would be “willing to pay” \$330,000 per year – for up to 20 years – for the ecosystem services provided by the biodiversity corridor on Arcturus Downs. This was one in a series of case studies developed by the (then) Department of Primary Industries and Fisheries through the Queensland Wetlands Programme. REFER TO Attachment A TO THE ORIGINAL SUBMISSION	The statement relates to the valuation of ecosystem function which is inherently difficult to determine. Commercial markets have not developed values for biodiversity and ecosystem measures. It should be noted however that SCC plans on developing a rehabilitation program which will improve vegetation along creek lines and lead to a net benefit to the system.
40.107	A4-16 Economic Report	5.9.1.2 Potential Adverse Impacts to Business and Industry Impacts on Existing Land Uses; “The other four properties in the Project Area are also expected to be able to continue farming operations, though production may potentially be impacted by underground mining as follows: - Subsidence on cropping land, that may impact drainage; “	Current modelling within the EIS demonstrates that permanent ponding and flood impacts will occur across the project area. The impacts upon drainage will be significant, restricting the lands ability to meet current SCL criteria.	The ponding estimates outlined in Chapter 8 - Surface water are 'unmitigated', meaning worst case, and demonstrate that ponding will not increase significantly. The implementation of management and mitigation measures will reduce the impacts significantly.
40.108	A4-16 Economic Report	5.11.2.2 Impacts on Rural/ Agricultural Property Values From Co-Existence “As a result, the impact of the Project on rural property values due to co-existing land uses is expected to be minimal and restricted to those landowners directly affected by mine site infrastructure. “	What measure of co-existence has been used to determine the impacts on directly affected landholders. The impacts upon landholders will not be limited to mine site infrastructure. Failure by the Proponent to fully detail current land practices restricts their ability to fully understand the impacts upon both the Rural and Agricultural values within the Project.	As noted previously, one of the roles of the Agricultural Co-existence Research Committee is to define co-existence to enable a baseline to be developed prior to mining activity taking place. In defining co-existence exiting land use practices will be taken into consideration. One of the challenges of developing a definition that can be used as a baseline for measurement of co-existence for the lifetime of the project, is that it needs to take into account

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			The exclusion by the Proponents of the associated infrastructure limits the impacts at this point. There will be a cumulative impact on landholders within the wider project area that is not being addressed at this point.	evolving farming practices and new technologies.
40.109	Appendix 4A-13 Aquatic Ecology Report from CQ University	Threatening Process and Management Recommendations Loss of Significant Riparian Vegetation Overview "The mining plan will include underground longwalls; spoil dumps, process waste (coarse and fine rejects) storages, buildings and road infrastructure and water management. These could impact on the existing riparian zones."	There has been no discussion of the spoil dumps within the EIS and they are not shown on the MIA plan within the EIS.	Any storage of overburden from extraction of the cut and cover and the drift will be within the MIA. All overburden will be re-used onsite for the construction roads within the project area, etc. There will be no long-term storage of overburden. We are seeking 100% yield from mining and there will be no tailings or tailings storage facilities required.
40.110	Appendix 4A-13 Aquatic Ecology Report from CQ University	Hydrological Impact "Underground mining can impact on the groundwater in the surface layers when subsidence fractures the overlying strata (Sengupta 1993). Surface water is then diverted underground, causing local water level declines that may cause impacts long distances from the mine site" Suggested management includes; - Implement a water monitoring programme that considers the above potential impacts and management strategies.	A water monitoring program has not been implemented as a part of the EIS. The Proponent must establish a wide reaching underground water monitoring program before the construction of the Project commences in order to gather baseline data. Sites should be within the MLA boundary as well as in the wider catchment area.	A detailed monitoring plan is currently being implemented to assess baseline conditions. This will include monitoring both within and outside the MLA area. Results from current monitoring are presented in Chapter 8 - Surface water, and an initial Water Monitoring Plan has also been presented in the EM Plan in Chapter 18.
40.111	Appendix A4-15 Social Impact Assessment Report	Executive Summary Conclusion "Bandanna aims to provide permanent yield increases across the properties directly impacted by mining operations, which should enhance their long-term viability."	Until the Agricultural Plan is developed we are unable to comment on such a statement and Bandanna are unable to quantify such a statement. The complete Agricultural Plan must be included within the Supplementary EIS.	Research to be undertaken under the direction of the independent Agricultural Co-existence Research Committee will influence the development of strategies to maintain or improve agricultural productivity on properties. In addition, surface land management plans will be developed with each landholder on a paddock by paddock and longwall by longwall basis closer to the time mining is scheduled to commence. It is premature to develop these strategies until such time we have further information gained from research and early years of mining on Den-Lo Park. With mining not scheduled to take place on some properties until year 25 of operation, any plan needs to take account of farming practices at the time to allow for advancements in farming practices and changes in land management practices.
40.112	General - EIS methodology	It must be noted that the use of aerial photography to pick up sensitive receptors is insufficient, houses have been missed. The use of Google Earth for field assessments is insufficient; Google Earth images are not up to date. Ground truthing and a detailed survey of landholders are required		Subsequent to the EIS being prepared, additional sensitive receptors have been included within the final EIS. In addition, restricted land surveys have been undertaken for all directly affected landholders within the MLA.

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		<p>to ensure that all sensitive receptors are noted so that impacts can be properly assessed and mitigation plans made.</p> <p>A complete survey of all effected landholders within the MLA boundary and the wider Project area is required before this EIS can proceed. The following inconsistencies must be addressed by the Chief Executive before this EIS document can be fully assessed.</p>		
40.113	Chapter 5 – Land (mapping)	Figure 5: Mapped Dominant Soils within the Project area	Only one soil type illustrated	This represents the dominant soils in the area as per DERM (now EHP) Mapping. Subsequent to the EIS being prepared, a detailed soils and land suitability survey has been undertaken. This survey concurs with the preliminary survey and the soil types remain as per the maps.
40.114	Chapter 5 – Land (mapping)	<ol style="list-style-type: none"> Figure 5-4 Existing Land Uses across the Springsure Creek Project Area Figure 5-9 Mapped GQAL across the Springsure Creek Project area Figure 5-10 SCL Assessment at the Project area 	Inconsistent data.	All maps have been updated and amended to correct inaccuracies and to incorporate data from additional assessments.
40.115	Chapter 5 – Land (mapping)	Figure 5-11 Project sensitive receptors used in visual amenity assessment	Failure to identify all the existing homesteads within the MLA and the wider Project area.	All maps have been updated and amended to correct inaccuracies and to incorporate data from additional assessments.
40.116	Chapter 5 – Land (mapping)	<ol style="list-style-type: none"> Figure 5-14 Predicted Subsidence across Section A-A in detail no mitigation Figure 5-15 Predicted subsidence across section B-B no mitigation Figure 5-16 Predicted Subsidence across Section B-B in detail no mitigation 	The scale used is misleading, misrepresenting the impacts of subsidence.	The scale has been amended.
40.117	Chapter 5 – Land (mapping)	Figure 5-17		All maps have been updated and amended to correct inaccuracies and to incorporate data from additional assessments.
40.118	Chapter 6 – Traffic and Transport (mapping)	<p>Plate 6-1</p> <p>Plate 6-2</p> <p>Plate 6-3</p> <p>Plate 6-4</p> <p>Plate 6-5</p>	Incomplete representation of current road standards.	Photos and Plates presented are not to be reflective of the road standards but to provide context to the reader.
40.119	Chapter 6 – Traffic and Transport (mapping)	Figure 6-3 Local bus stops and flood ways	Incomplete representation of number of bus stops and flood ways	Information showing school bus stops was sourced from the Central Highlands Regional Council and the Department of Transport and Main Roads. Subsequent to the EIS being prepared initial discussions have taken place with the school bus committee. Notwithstanding the location of school bus stops, SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and

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				to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current.
40.120	Chapter 6 – Traffic and Transport (mapping)	Figure 6-5 Stock Routes in the vicinity of the project	Incomplete data	This has been amended and clarified in the final EIS
40.121	Chapter 8 – Surface Water (mapping)	Figure 8-6 100 year ARI Peak Flood Depth Existing Scenario	0.00-0.50 Colour code is deceptive Mapping does not reflect actual existing scenario	<p>The colour code was selected to display the full range of depth. The event modelled is the 100 year ARI design event. The mapping shows the results of the modelling undertaken.</p> <p>A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously - meaning a worst case scenario.</p>
40.122	Chapter 8 – Surface Water (mapping)	Figure 8-7 1000 year ARI Peak Flood Depth Existing Scenario	Mapping shows flooding within subsidence panels, although subsidence does not yet exist.	Figure 8-7 is incorrect, this is post subsidence. This has been amended.
40.123	Chapter 8 – Surface Water (mapping)	Figure 8-8 100 year ARI Peak Flood Depth Post subsidence Scenario	MIA infrastructure is under water	The MIA is located outside the 1000 year ARI peak flood extent of Drummond Gully (Unnamed Creek 1).
40.124	Chapter 8 – Surface Water (mapping)	Figure 8-15 Storm Water Management	Design incorporates no overland flow, Incomplete data	Overland flow is discussed in Chapter 8, section 8.5 of the final EIS. The EIS specifically discusses the impacts of stream flow, ponding and flood flows for a range of modelled scenarios. Additional information is presented in the technical report in Appendix A4-5. Within the water model, rainfall was applied directly to the entire project area and natural topography dictated overland flow and ponding.
40.125	Chapter 10 – Air Quality (mapping)	Table 10-5 Sensitive Receptor Locations within wider project area	Failure to identify all sensitive receptors within the MLA and the wider project area	Sensitive receptors have been updated and added to maps and the table updated.
40.126	Chapter 10 – Air Quality (mapping)	Figure 10-1 Sensitive Receptor and Monitoring Locations	Failure to identify all sensitive receptors within the MLA and the wider project area	Sensitive receptors have been updated and added to maps and the table updated.
40.127	Chapter 10 – Air	Table 10-10 Stack Properties	Table data is in consistent with Chapter 3 Description of the	Table 10-10 and Chapter 3 have been checked for consistency.

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	Quality (mapping)		Project	The Air Quality Report has also been checked and is correct and consistent with the final EIS. There may be some confusion between stack properties and stock pile heights. These are different elements of the Project.
40.128	Chapter 10 – Air Quality (mapping)	Figure 10-8 Predicted maximum daily average PM10 concentrations during Operation phase	Failure to identify all sensitive receptors within the MLA and the wider project area	Sensitive receptors have been updated and added to maps and the table updated.
40.129	Chapter 10 – Air Quality (mapping)	Figure 10-9 Predicted maximum monthly average dust deposition concentrations during Operation phase	Failure to identify all sensitive receptors within the MLA and the wider project area	Sensitive receptors have been updated and added to maps and the table updated.
40.130	Chapter 10 – Air Quality (mapping)	Table 3-. Geographic Location (UTM Coordinates) of the closest sensitive receptors	Failure to identify all the sensitive receptors within the MLA and the wider project area	Sensitive receptors have been updated and added to maps and the table updated.
40.131	Chapter 11 Noise and Vibration (mapping)	Table 11-1 Sensitive receptor locations within wider Project area	Failure to identify all the sensitive receptors within the MLA and the wider project area.	Sensitive receptors have been updated and added to maps and the table updated.
40.132	Chapter 11 Noise and Vibration (mapping)	Figure 11-1 Sensitive receptor and monitoring locations within the proposed MLA and wider Project area	Failure to identify all the sensitive receptors within the MLA and wider Project area	Sensitive receptors have been updated and added to maps and the table updated.
40.133	Chapter 11 Noise and Vibration (mapping)	Table 11-13 Predicted construction phase noise levels at sensitive receptors and Figure 11-2 Construction phase noise contour plots	Data inconsistent between table and figure	The wrong figure was inserted into the EIS. This has been amended and the correct figure is in the final EIS.
40.134	Chapter 12 Ecology (mapping)	Figure 12-4 Wetlands and river systems within the Project area	Inconsistent labelling	The creeks in Figure 12-4 have been given consistent labelling.
40.135	Chapter 15 Health and Safety (mapping)	Figure 15-1 Potential Sensitive Receptors	Failure to identify all the sensitive receptors within the MLA and wider Project area.	Sensitive receptors have been updated and added to maps and the table updated.
40.136	Chapter 17 Hazard and Risk (mapping)	Figure 17-1 Sensitive Receptors	Failure to identify all the sensitive receptors within the MLA and wider Project area	Sensitive receptors have been updated and added to maps and the table updated.
40.137	Chapter 18 Draft EM Plan	Figure 18-9 Sensitive receptors located within the wider Project area	Failure to identify all the sensitive receptors within the MLA and wider Project area	Sensitive receptors have been updated and added to maps and the table updated.



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	(mapping)			
40.138	Chapter 18 Draft EM Plan (mapping)	Figure 18-13 100 year ARI peak flood depth – existing scenario	Colour code 0.00-0.50m is deceptive in nature Modelling is not consistent with existing actual	The colour code was selected to display the full range of depth. The mapping represents 100 year ARI statistical design event, it does not represent a specific historical event.
40.139	Chapter 18 Draft EM Plan (mapping)	Figure 18-14 1,000 year ARI peak flood depth – existing scenario	Colour code 0.00-0.50m is deceptive in nature Modelling is not consistent with existing actual	The colour code was selected to display the full range of depth. The mapping represents 100 year ARI statistical design event, it does not represent a specific historical event.
40.140	Chapter 18 Draft EM Plan (mapping)	Figure 18-19 Homestead locations and features of the landscape	Failure to identify all the sensitive receptors within the MLA and wider Project area.	Sensitive receptors have been updated and added to maps and the table updated.
40.141	Appendix A4-03 Visual Amenity Report (mapping)	Figure 4 - Homesteads, unable to view the MIA	Failure to identify all the sensitive receptors within the MLA and the wider Project area.	Sensitive receptors have been updated and added to maps and the table updated in Chapter 5 - Land along with an assessment of all relevant/identified sensitive receptors. Mapping in the technical report has not been updated as the conclusions of the report do not change.
40.142	Appendix A4-03 Visual Amenity Report (mapping)	Figure 5 Homesteads with potential views of the MIA	Failure to identify all the sensitive receptors within the MLA and the wider Project area.	Sensitive receptors have been updated and added to maps and the table updated in Chapter 5 - Land along with an assessment of all relevant/identified sensitive receptors. Mapping in the technical report has not been updated as the conclusions of the report do not change.
40.143	Appendix A4-03 Visual Amenity Report (mapping)	Table 3 Landscape Analysis	Data incomplete due to failure to identify all the sensitive receptors within the MLA and the wider Project area.	Sensitive receptors have been updated and added to maps and the table updated in Chapter 5 - Land along with an assessment of all relevant/identified sensitive receptors. Mapping in the technical report has not been updated as the conclusions of the report do not change.
40.144	Appendix A4-03 Visual Amenity Report (mapping)	Appendix A Homestead Digital Terrain Model Analysis	Data incomplete due to failure to identify all the sensitive receptors within the MLA and the wider Project area.	Sensitive receptors have been updated and added to maps and the table updated in Chapter 5 - Land along with an assessment of all relevant/identified sensitive receptors. Mapping in the technical report has not been updated as the conclusions of the report do not change.
40.145	Appendix A4-10 Noise and Vibration (mapping)		Quality of images within report is below standard. Images are dark	The mapping is overlaid on google earth, which is quite dark. The software cannot overlay on other mapping due to the large area involved. Rings with values have been added for easier interpretation of map information.
40.146	Appendix A4-10 Noise and Vibration (mapping)	Appendix C Wind Rose	Wind direction from 2006 modelling is inconsistent with Chapter 10 Air Quality and predicted dust settlement area and direction.	The data is correct. The 'spikes' on the wind rose represent the direction the wind is blowing from. The wind rose data in the Noise and Vibration Report is the same as the Air Quality Report. The colours shown are different as they represent the noise criteria.

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40.147	Chapter 3 - Description of the Project	<p>3.2 Location 3.2.1 Regional Context The Project is located within the Central Bowen Basin coalfields, approximately 47 km south east of Emerald and 37 km north east of Springsure in Central Queensland (Figure 3-1).</p> <p>Appendix A4-03 Visual Amenity Report 1. Introduction The project is located approximately 40km south of Emerald and approximately 60km to the south west of the township of Blackwater</p>	Correct data inconsistency	The Project is located within the Central Bowen Basin coalfields, approximately 47 km south east of Emerald and 37 km north east of Springsure in Central Queensland. While the description of the location of the project in the Visual Amenity Report differs slightly, the site is clearly identified on maps within the report. As the conclusions of the Visual Amenity assessment have not changed, the technical report has not been updated. The references within Chapter 3 are consistent.
40.148	Chapter 2 - Project Needs and Alternatives	<p>2.2.2 Alternative Locations of the Project The final results indicated that a total of 1,183 hectares (ha) of SCL currently exists within the Project area</p> <p>Chapter 5 – Land, Table 5-14 Areas of SCL, Potential SCL and non-SCL within the Springsure Creek Project area, the total area classified as SCL is 1118ha.</p>	Correct data inconsistency	The data inconsistency has been corrected.
40.149	Chapter 2 - Project Needs and Alternatives	<p>2.2.3.4 Assessment of Alternative Access Options to Underground Mine Areas For the present Project, drift access has been deemed most feasible. This decision is based on: Ability to locate the drift entrance in paddocks that are of relatively low productivity within the Den-Lo Park property;</p> <p>Figure 5-4 Existing land uses across the Springsure Creek Project area has the drift entrance area marked as irrigated cropping. Figure 5-10 SCL Assessment of the Project area has the drift entrance area marked as SCL.</p>	Correct data inconsistency	The drift entrances have been sited to minimise impacts to agricultural activities and production. This includes impacts to site drainage and water resources on the Den-Lo Park property. Text in the final EIS has been amended to ensure consistency.
40.150	Chapter 2 - Project Needs and Alternatives	<p>2.2.3.5 Assessment of Alternative Locations for Mine Infrastructure Area “The overall MIA footprint has been reduced as far as practicable (less than 60 ha) to minimise the overall land-take of above-ground infrastructure.”</p> <p>Appendix A4-3: Visual Amenity Report, 2. Project Description, it is stated that “the facilities will be located over an area of 115ha” Chapter 5 Land, 5.4.5.6 Cut and cover Excavations, it states “Mine Infrastructure Area (MIA) will occupy 60ha of land” Appendix A4-15: Social Impact Assessment Report, 3.3 Land Use, it states “Mine Infrastructure, stock piles and waste rock and water storage areas will occupy an area estimated at 40 hectares” Appendix A4-16 Economic Report, 5.7 Implications for Future Development, Mine infrastructure, the CHP, stock piles and waste</p>	Correct data inconsistency	The Mine Infrastructure Area will occupy 60 ha of land. Other references are incorrect and have been remedied in the final EIS.



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		rock and water storage areas will occupy an area estimates at 320 hectares”		
40.151	Chapter 2 - Project Needs and Alternatives	<p>2.2.4.1 Water Grid Supply Up to approximately 1,247 megalitres (MI) per annum may be required during maximum production operations.”</p> <p>Chapter 3 – Description of the Project, 3.6.3.1 Water Supply, it states that “for supplying raw water of with approximately 838 megalitres (MI) per annum to the mine required during maximum operational capacity”.</p>	Correct data inconsistency	Section 3.6.3.1 included a typo (838 MI) which has been corrected. As per 2.2.4.1 and Table 3-8, water demand for dual longwall operation is 1247 MI. The figure of 838 MI is demand during single longwall operations.
40.152	Chapter 2 - Project Needs and Alternatives	<p>2.2.4.2 Mine Dewatering “The water balance for the Project indicates that there will be a water deficit for the Project (see Section 3.7.4.1)”</p>	Correct data inconsistency	This is correct, there will be a water deficit.
40.153	Chapter 2 - Project Needs and Alternatives	<p>2.2.5 Alternative Accommodation “It is anticipated that the majority of the construction and operation workforce will be non-resident and will require accommodation close to the Project area.</p> <p>Chapter 3 – Description of the Project, 3.4.7 Workforce Accommodation, “ any demand for additional accommodation will be reduced as much of the construction workforce will be sourced locally and therefore anticipated to already reside nearby”</p>	Correct data inconsistency	<p>The construction of the accommodation camp is anticipated to require 8-12 months. The construction workforce is presently estimated at 184 people for the first year, increasing to 350 in the second year.</p> <p>During construction, it is anticipated the workforce would reside within the local area and thus reduce any demand on existing accommodation requirements. Where any non-resident workforce accommodation is required, then several options are available including accommodating people within existing and planned accommodation within Springsure and Emerald.</p> <p>Once the accommodation village is constructed, then this would provide accommodation for up to 300 people at any one time for the needs of the workforce and any contractors or visitors required to the site from time to time. The village would provide for 300 workers at any one time which is significantly less than the anticipated workforce at any stage of the project.</p> <p>Section 2.2.5 has been amended accordingly.</p>
40.154	Chapter 3 - Description of the Project	<p>3.1.1 The Springsure Creek Coal Mine Project “The project will employ a peak workforce of approximately 350 people during construction, 585 during operation and 40 during decommissioning”</p> <p>3.4.6.2 Workforce Skills “The Project is expected to require an average of 240 construction workers over a 31 month period.”</p>	Correct data inconsistency	The data is correct. The peak construction workforce is expected to be 350 which increases over time. Across the total 31-month construction timeframe, the average workforce is 240.
40.155	Chapter 3 - Description of the Project	<p>3.4.7 Workforce Accommodation “However, any demand for additional accommodation will be reduced as much of the construction workforce will be sourced</p>	Correct data inconsistency	As noted above, section 2.2.5 has been updated.



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		<p>locally and therefore anticipated to already reside nearby.”</p> <p>2.2.5 Alternative Accommodation; “It is anticipated that the majority of the construction and operation workforce will be non-resident and will require accommodation close to the Project area.</p>		
40.156	Chapter 5 – Land	<p>5.5.1.3 Model Predictions The Project will result in a total of 7,050 ha of land being subsided within the Project area.</p> <p>16.7.5 Implications for Future Development in the Area; this could result in some permanent reduction or loss of agricultural production (or any other productive uses) on affected land, up to approximately 7,400 ha.”</p>	Correct data inconsistency	Data inconsistencies have been updated and reference to actual hectares removed.
40.157	Chapter 5 – Land	<p>Figure 5-16 Potential Impacts Associated with the Project, Land Degradation Although a temporary (i.e. 6- 12 months) decrease in agricultural activity may occur while a long wall panel is being mined.</p> <p>14.4.5 Impacts on Property Owners However, the five property owners with land inside the Project area will potentially be impacted by underground mining operations as follows: - Disruption to farm operations during subsidence (approximately one week) and potential change in land management practices as a result of subsidence (e.g., different cropping regimes);”</p>	Correct data inconsistency	Active subsidence occurs within a few days or weeks. Disruptions of "about 1 week" refer to the period of time that no agricultural activity is likely to be permitted on paddocks as the 'active' subsidence takes place. Once that initial subsidence has taken place, agricultural activity is likely to be able to recommence.
40.158	Appendix A4-15 Social Impact Assessment Report	<p>Executive Summary, Land Use; “The project is expected to cover an area of around 108km2 and 52% of the 5 properties are located within the MLA”</p> <p>Whilst in 19.2.1 Land Use The Project is expected to cover an area of approximately 126 km2 and approximately 61% of the five properties are located within the Project area.</p> <p>A4-15 Social Impact Assessment Report, 7.2 Property Owners; The MLA has an area of 10736ha (107km2) ... approximately 53% of the combined area of these five properties located within the MLA.</p>	Correct data inconsistency	The data inconsistency has been corrected.
40.159	Appendix A4-16 Economic Report	AEC Group Final Report – Economic Impact Assessment, 5.9.1.2 Potential Adverse Impacts to Business and Industry, Impacts on Existing Land Uses;	Correct data inconsistency	Both answers are correct. The total area of the Den-Lo Park property is 2221 hectares. However, when existing road easements that cross the property are excluded, the area is 2198

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		<p>".. Den-Lo Park, which has an area of 2221 hectares"</p> <p>Appendix A4-15: Social Impact Assessment Report, 3.3 Land Use, it states " Den-Lo Park has an area of 2198 hectares"</p>		hectares.
40.160	Appendix A4-10 Noise and Vibration	<p>VIPAC Springsure Creek Coal Noise and Impact Assessment 1. Introduction; "Target seam is located between 200- 260m below the surface."</p> <p>Appendix A4-15 Social Impact Assessment Report 3.3 Land Use Subsidence and Rehabilitation. "Underground mining will extend over much of the MLA and will occur between a depth of 290 and 400m."</p> <p>Appendix A4-7a Ground Water Report, Executive Summary. "The target coal seam is the Aries 2 Seam of the Bandanna Formation, which occurs at depths of 213 to 516m in the proposed mining area."</p>	Correct data inconsistency	The Aries 2 seam is the target seam, 185 m-320 m below ground level (average of 240m) and is approximately 3 m thick. The chapters within the EIS have been checked for consistency and updated where required. References in technical reports included in the Appendices have not been updated as the reference does not impact the overall conclusions of the assessments.
40.161	Appendix A4-8 Air Quality	<p>VIPAC Springsure EIS Air Quality Assessment 2.3 Flaring "The Springsure mine will be 200-300m underground where the mean methane content is 0.02m3 per tonne of coal, as a result of the low quantity it will not be required to flare the methane gas from Springsure Mine"</p> <p>17.5.4.2 Seam Gas "Seam gas within the Project area is predominantly methane and ranges from 2.0 – 3.5 m3 per tonne of coal and up to a depth of 350 m (Busfield 2012). Busfield (2012) concludes, based on the available data, that de-gassing or flaring will not be required. However, Busfield (2012) does recommend that further gas testing is required for mining depths greater than 350m. As concentration of gas in the Project area is considered relatively low, it is considered that risk of fire or explosion is minimal."</p>	Correct data inconsistency	<p>This has been amended in the Technical report. The section now reads:</p> <p><i>"The Springsure mine will be approximately 300 m underground, where methane ranges from 2.0 – 3.5 m3 per tonne of coal. Based on the available data, de-gassing or flaring will not be required".</i></p>
40.162	Appendix A4-1 Soil Results and SCL Report	CDM Smith: Strategic Cropping Land Assessment – Springsure Creek and Arcturus Coal Mine Projects	<ol style="list-style-type: none"> The data sets are not representative of the entire MLA. Four of the soil borehole locations are actually outside the boundary of EPC 891 The study covers EPC 891, EPC 1221 and MLA 70461. Data used to make the provisional assessment is incomplete. Figure 4. Springsure Creek Slopes, identifies nearly the entire area of EPC 891 as having slopes less than or equal to 3%, yet Table 4-1 Potential SCL excluded by application of Criterion 1, (Criterion 1 being slope), removes an area 	The objective of the CDM Smith preliminary soil survey was to ground truth the desktop study of an MLA area. Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This more accurately identifies the current land use. This assessment will be submitted to DNRM to be taken into consideration during the SCL approvals process.

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			of 17,014ha or 41% of the EPC as not meeting the SCL Criteria for slope of less than or equal to 3%. 2.	
40.163	Appendix A4-2 - Subsidence Report	SCT: Springsure Creek 3D Subsidence Predictions: Executive Summary, the reliability of these predictions relies on the closeness of the site characteristics to the empirical trends and requires that the extraction heights are realised, the mine plan remains unchanged and the pillar sizes are as planned"	5.5.1.2 Subsidence Prediction Method, "It should be noted the mine plan has since been amended and has been reduced in size."	MLA 70461 has a larger footprint than MLA 70486. As such, the subsidence predictions are based on an area much larger than the proposed mine footprint and are therefore more conservative. This has also enabled the identification of potential impacts of subsidence beyond the boundary of MLA70486.
40.164	Appendix A4-2 - Subsidence Report	SCT: Springsure Creek 3D Subsidence Predictions	Modelled on MLA 70461	As noted previously, MLA 70461 has a larger footprint than MLA 70486. As such, the subsidence predictions are based on an area much larger than the proposed mine footprint and are therefore more conservative. This has also enabled the identification of potential impacts of subsidence beyond the boundary of MLA70486.
40.165	Appendix A4-5 Flood Assessment and Water Management Report	Engeny Water Management: Mine Site Flood Assessment and Water Management Report	<ol style="list-style-type: none"> 1. A single hydrologic model was developed for both the Springsure Creek EPC 891 and Arcturus EPC 1221 2. December 2010 historical rain event was included which was mostly confined to the Comet River Catchment and therefore of relevance to EPC 1221 but not EPC 891 3. The area and boundary of MLA 70461 was used instead of MLA 70486 4. Report Concludes that MIA is designed to withstand 1:100 year flood event, however the MIA illustrated in Figure 6.4 is in a different location to the MIA described in Chapter 3 Description of the Project. 	<p>The use of a single hydrological model is appropriate. Within the single hydrological model exists multiple individual catchments specific to a selected waterway.</p> <p>The design rainfall Intensity-Frequency Duration (IFD) data for various storm events were derived based upon the procedures outlined in Book 2 of Australian Rainfall and Runoff (AR&R) 2001 edition. The purpose of assessing the 2010 (largest event on historical record) event hydrology was to determine whether this historical event was greater than the 1000 year ARI design event as the larger of the two would determine the flood risks and constraints of the site. This was at the request of DEHP (formally DERM). The 1000 year ARI was determined to be the greater of the two.</p> <p>Specific, historical rainfall events were not hydraulically modelled as part of the current study. Design events were simulated ranging from a 2 year average recurrence interval (ARI) up to a 1000 year ARI. These are statistical events and the range was selected to comply with current legislative requirements and to represent a large range of potential storm events.</p>
40.166	Appendix A4-5 Flood Assessment and Water Management Report	Table 8.1 Estimated Mine Water Demands	Total Raw water demand for Dual Long wall is incomplete. Overall calculation for Mine water needs is therefore insufficient and total water requirements are greater than estimated.	The water demand estimates are correct.
40.167	Chapter 8 –	Figure 8-8 100 year ARI Peak flood depth Post Subsidence	The MIA is underwater	The MIA is located outside the 1000 year ARI peak flood extent of



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	Surface Water	Scenario No mitigation.		Drummond Gully (Unnamed Creek 1).
40.168	Chapter 18 - Draft EM Plan	Figure 18-13 100 year ARI peak flood depth – existing scenario	Mapping is inconsistent with existing knowledge	<p>The mapping represents a 1000 year ARI statistical design event. It does not represent a specific historical event.</p> <p>Chapter 9 states that: <i>"The groundwater model will be updated as additional data become available. The need for an update will be assessed on a six monthly basis, based on the review of data and/or the outcome of impact verification"</i>.</p>
40.169	Chapter 18 - Draft EM Plan	Figure 18-14 1,000 year ARI peak flood depth	Mapping is inconsistent with existing knowledge	The mapping represents a 1000 year ARI statistical design event. It does not represent a specific historical event.
40.170	Appendix -13 Aquatic Ecology	Figure 1 Freshwater Sites of Springsure Creek MLA	Incorrect MLA boundary	The MLA boundary shown in Figure 1 of the technical report represents a previous proposed MLA boundary. Mapping showing the correct MLA boundary are presented in Chapter 12 - Ecology. Maps in the technical report have not been updated as they have no impact on the conclusions of the assessment.
40.171	Chapter 10 - Air Quality	<p>10.2.5 Predicted Air Quality Emission Results of dispersion modelling undertaken to assess the potential impacts of the proposed mining activities on the predicted TSP, PM10, PM2.5, PM10 and dust deposition levels at the nearest sensitive receptors to the Project area are summarised below.</p> <p>Table 10-10 Stack Properties Stack Height 6m</p>	Appendix A4-3 Visual Amenity Report The tallest visual aspects of the project will be the Coal Stockpile area (35m Dome)	Stockpiles will be 35m in height and the stack will be 6m in height. The Air Quality report does not suggest the stack will be the most significant visual impact.

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41.01	General	Bandanna has not addressed the Terms of Reference and therefore the Chief Executive should repeal his decision that the EIS was properly made. The EIS does not provide the information requested in the TORs , site surveys are statistically inadequate, data has not been collected or is missing and modelling has been done using superseded mine plans.	the Chief Executive should repeal his decision that the EIS was properly made	It is our view that the EIS does comply with the Terms of Reference and all requirements have been addressed within the EIS.
41.02	General	<p>In addition to this issue of not complying with the EIS process, there are many scientifically valid, environmental reasons why the Springsure Creek MLA should not be approved. There is no doubt that this project will have a long-term, irreversible impact on prime agricultural cropping land and water resources.</p> <p>Within this current regulatory system, there is no confidence that this mine will deliver an end-of-mine landscape that is suitable for irrigated farming. The lack of experience and financial resources within Bandanna, and the Queensland Government’s currently under-resourced EHP Department, leads to serious doubts about the effective regulation of this mine and Bandanna’s commitment to prioritise Environmental values over profit.</p>	the Springsure Creek MLA should not be approved	<p>We have asked to be conditioned on co-existence making it a condition of an Environmental Authority that we demonstrate co-existence prior to mining activity extending beyond Den-Lo Park.</p> <p>One of the aims of the Agricultural Co-existence Research Committee is to define co-existence with regard to this project to enable a baseline to be established prior to mining taking place. This will enable co-existence to be measured once mining starts and compliance with conditions of approval relating to co-existence to be monitored. We will be required to report on progress in meeting the specified performance on an annual basis to state government as part of annual compliance reporting.</p> <p>SCC will be seeking to work with landholders on an individual basis to develop surface management plans on a longwall panel by longwall panel and paddock by paddock basis prior to mining being undertaken, taking into account farming practices at the time. The management plans will include measures for managing residual subsidence to minimise the impacts on agricultural practices.</p>
41.03	Chapter 2 - Project Needs and Alternatives	<p>2.3 Ecologically Sustainable Principles</p> <p>The first ESD is: “To enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations”.</p>	Table 2-1 addresses the first component but does not address the issue of safeguarding the welfare of future generations. The need for food security and Australia’s ability to provide a long-term supply of food for future generations is one of the core issues in the debate over this project.	It is a requirement of the Strategic Cropping Land Act that SCC rehabilitates any impacts to strategic cropping land as a result of mining. The Springsure Creek Agricultural Project has been developed with the aim of maintaining and improving strategic cropping land which is impacted by the proposed project. As noted above, we have asked to be conditioned on co-existence making it a condition of an Environmental Authority that we demonstrate co-existence prior to mining activity extending beyond Den-Lo Park.
41.04	Chapter 3 - Description of the Project	<p>3.4 Operations</p> <p>This section of the EIS states that: <i>“The Project is anticipated to have an operational mine life of approximately 40 years and will initially produce 5.5 Mtpa of coal from the first longwall and expand to produce up to 11 Mtpa of coal from both longwalls”</i></p>	This level of production makes it the largest underground mining project currently in approval stage in Queensland. It is questionable, if not outright impossible, to operate a mine of this size with the infrastructure that Bandanna is proposing. Mines such as Oaky Creek, Newlands, German Creek and Ensham produce similar volumes and they all have both underground and open cut pits and/or multiple underground workings. Underground mining at this scale would disturb more than 200ha per annum, which is	Differences between the TOR and EIS relating to the project description (e.g. coal production rate, number of longwalls, mine life and workforce profile) do not affect the conclusions of the EIS. The assessment presented in the EIS has been based on the description of the project within the EIS (i.e. 11 Mtpa, 2 longwalls, 40 yr mine life and current workforce) and actual assessment methodologies and scope would not vary as a result of these changes. The proposed management measures presented in the



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			<p>the figure proposed in the EIS.</p> <p>The implications of gas drainage for a mine of this size is significant. Surface in-seam drainage will require 2-3 pads of approximately a hectare, with sumps and one or two vertical risers that intersect the hole. This disturbance has not been allowed for in the description of the project. In Section 14.5 of the EIS (Cumulative Impacts) it is noted that 13 mines in the Emerald area produced 50Mtpa in 2010. Springsure Creek would therefore be producing approximately 18% of the area's coal from a single underground pit. This is discussed further in this document where we have presented comments on Section 16 from the EIS - Economics.</p> <p>This EIS is reporting on construction and infrastructure impacts that are much smaller than what is realistic if Springsure Creek produces 11Mtpa. For example (as discussed further in Section 11 Noise and Vibration), they are already out of compliance with noise and that is based on a single mine ventilation fan. Impact assessment studies need to be completed based on a realistic mine plan to provide stakeholders with confidence that the true impacts have been considered. The level of detail and accuracy of data provided in this EIS is well below the standard required by any proponent and unacceptable for this project given the size of the mine and the value of the land it is damaging.</p>	<p>EIS are appropriate for a project of this scale. The differences between the project description presented in the TOR and EIS are not considered to be material changes in terms of size, location, nature or intensity.</p> <p>We cannot comment on the production rates of other mines, however we are confident we can achieve the rates as outlined in the EIS.</p>
41.05	Chapter 3 - Description of the Project	<p>3.8 Rehabilitation and Decommissioning</p> <p>The Terms Of Reference ask that Bandanna: "Describe the options, strategic approaches and methods for progressive and final rehabilitation of the environment disturbed by the project. Develop a preferred rehabilitation strategy that would minimise the amount of land disturbed at any one time, and minimise the residual loss of land with ecological or productive value. Show the final topography of any excavations, waste areas and dam sites on suitably scaled maps."</p>	<p>Bandanna has not described the options for rehabilitating cropping land or the methods they plan to use. They have included two paragraphs in Section 3.8.5.2: <i>"The Agricultural Co-existence Research Committee will inform the most appropriate mitigation and rehabilitation strategies. It is likely that re-contouring of the land surface will be required where subsidence detrimentally affects the water flows from irrigation and natural drainage. Depending on the level of subsidence post mining, the irrigation method in some areas may need to be altered from flood irrigation to pivot irrigators that can move over variable topography."</i></p> <p><i>Subsidence may also give rise to localised surface tension cracking due to tensile strain on the ground surface. Remediation of subsidence cracks is necessary to reduce erosion and ensure a productive post-mining land use. Tension cracks as a result of mining activities may be rehabilitated through deep ripping, infilling with clay, or compaction. Alternative treatments such as bentonite injection will be available as fall-back contingency measure in the event that cracks re-occur. Tension cracking and subsidence in general will be monitored both during and post-mining as outlined in Chapter 5 – Land and Chapter 8 – Surface Water."</i></p>	<p>Please refer to Chapter 1 - Introduction in the final EIS which provides a graphical representation of the environmental management process and at what point management plans are developed. It is not appropriate to develop management plans without understanding potential restrictions (conditions) on the development of the mine imposed through the Environmental Authority.</p> <p>It is also inappropriate to develop management plans prematurely without adequate information. For example, with mining not scheduled to take place on some properties for a number of years it is inappropriate to develop management plans based on current cropping regimes and farming practices, and without consideration of technological advancements in farming practices and the benefit of the co-existence research and experience of mining having taken place on Den-Lo Park.</p>

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			<p>The only commitment given in the EIS is that SCC will deliver “Successful rehabilitation with landforms that are stable, non-polluting and no visible rill or gully erosion” (EM Plan Page 18-140). When it is such a high-risk project, the miner should be providing much more detail prior to an approval being issued.</p> <p>Surface in-seam drainage will require 2-3 pads of approximately a hectare, with sumps and one or two vertical risers that intersect the hole. This disturbance has not been allowed for in Bandanna’s description of rehabilitation and decommissioning.</p> <p>Bandanna has also not addressed Goaf Drainage. When you are underground and if there are overlying coal seams and if they fracture, gas will enter the mine area where men are working. To mitigate this, they will drill a 10 inch goaf drainage hole approximately every 100m to extract gas during the mining sequence. Obviously, this row of holes will follow each long wall block as it is subsided causing significant disturbance to any cropping land because there will be holes every 100m. There will also be significant compaction resulting from the machinery drilling these holes. Wet season drilling on these cropping soils will create an absolute mess and this has not been addressed in any way.</p>	
41.06	Chapter 3 - Description of the Project	<p>Agricultural Research Bandanna’s Agricultural Research Committee is stating that they will increase agricultural production through increasing yield, expansion of irrigation area and improved farming practices (Table 14-6). Bandanna Energy claiming that they will expand irrigation areas is not an acceptable trade-off for damaging some of our most precious soil resources.</p> <p>The GRDC (Grains Research Development Corporation) spends hundreds of millions of dollars each year on grains industry research, yet increases in agricultural productivity has all but plateaued.</p>	<p>It is important to note that irrigation has no bearing whatsoever on identification of SCL.</p> <p>How can Bandanna Energy increase yield with a research budget of only \$3m, spread over 3 years? Our combined operation costs that much to run every year! Bandanna has not given any specifics on how they intend to maintain the soil structure and have given not assurances for the post mine landscape. In fact, this EIS supplies very little detail on how they intend to achieve their claimed yield increases.</p> <p>It is important to note that rehabilitation of SCL has never been achieved in Australia, and we have ancient soils, climatic conditions, and farming techniques that are unique from the rest of the world. If Bandanna Energy want to trial their experimental techniques, they should test and prove them on an existing mine site, such as “Gordon Downs”. There is no logic in starting a new mine, in one of the most precious farming areas in the state to test their theories.</p> <p>Of particular concern, is that if Bandanna Energy do have a “new concept” to rehabilitate SCL, it is not included in this EIS and thus</p>	<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity. With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p> <p>Note that the following projects have investigated the effects of mining on agriculture: CARP Project No: C8018 EFFECT OF LONGWALL MINE SUBSIDENCE ON PLANT PRODUCTION ON CROPPING LAND D Hinchliffe, P Matthew and U Pillai-McGarry (School of Agronomy and Horticulture, University of Queensland, Gatton); H.B. So (School of Land and Food Sciences, University of Queensland, St Lucia); and D. Mulligan (Centre for Mined Land Rehabilitation, University of Queensland, St Lucia). This project studied the impact of Long Wall Mining Subsidence on wheat and soybean production</p>

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			does not address the TOR.	<p>at the Kestrel Mine, Emerald, QLD. They measured germination and yield for winter wheat and germination for soybeans. Soil and moisture characteristics were also measured. The impact of subsidence on wheat germination was minimal, however, germinations were slightly higher on the pillar sites than both the subsided and un-subsided sites. There was no significant impact on wheat yield, soybean germination or on any of the soil or moisture characteristics.</p> <p>ACARP PROJECT C15013 MONITORING THE EFFECT OF LONGWALL MINE SUBSIDENCE ON NATIVE VEGETATION AND AGRICULTURAL ENVIRONMENTS</p> <p>Paul Frazier, Ross Jenkins, Tienieke Trotter; ECOLOGICAL AUSTRALIA</p> <p>Two landscapes were investigated using a whole of mine site technique including remote sensing, ground survey and traditional agricultural monitoring methods. The landscapes were at the Kestrel site in Emerald, QLD including a forage sorghum and an improved pasture and at Beltana in the Hunter Valley, NSW including an irrigated lucerne pasture and an unimproved native pasture. At each site a stratified sampling procedure was undertaken to ensure samples from non-mining, pillar, transition and longwall panel centre zones. Samples were collected via:</p> <ul style="list-style-type: none"> • Vegetative field sampling (quadrat based for biomass, plant species, percent vegetative cover, leaf area index, plant height) • Soil sampling (cores and pits for pH, EC, % moisture) • Proximal sensors (EM38 for topsoil electrical conductivity, Crop Circle for NDVI) • Satellite and airborne imagery (Airborne video, QuickBird and SPOT 5) <p>The soil sampling taken at the start of the project at Beltana and Kestrel showed minimal variation across all sites. For the sites already mined there were no measureable effects of Long Wall Mining Subsidence in the soil properties. There was no significant difference in the available biomass, measured by dry weight between the subsidence zones in the lucerne or native vegetation at Beltana. There was no significant difference in biomass between the mined and unmined areas in the sorghum crop. The remote sensing data collected at the Beltana site, used to assess change between longwall zones pre and post mining in the lucerne and native vegetation indicated there were no trends that indicate Long Wall Mining Subsidence had an impact on the vegetative biomass. Remote sensing images were used to determine changes between Kestrel areas which had been mined compared with areas not undermined. There were significant</p>

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				differences between the longwall or contour zones, however, there were no temporal trends that indicate that Long Wall Mining Subsidence had an impact on the vegetative biomass. Throughout the duration of this project, no significant effect on agricultural production was found at either site.
41.07	Chapter 3 - Description of the Project	Existing Non-Compliance to Rehabilitation There are many examples within the Bowen Basin where mines have made changes to Rehabilitation Management to suit their financial situation.	Bandanna have been non-compliant with bore hole rehabilitation, so how can the State Government have any confidence in them being compliant with environmental conditions on a large scale, high risk mining project?	This is incorrect. It is acknowledged that borehole rehabilitation took a lot longer than it should have, however at no point was Bandanna Energy held as non-compliant by EHP. All complaints have been addressed and assessed. We will continue to work with landholders and meet all our conditions of EA to the highest standards. Bandanna Energy and SCC strive to exceed all environmental conditions.
41.08	Chapter 4 - Climate	Data source	<p>It is unclear where Bandanna is referencing their weather data from, as their comments (4.3.1 & 3) on storms and the potential impact of flooding is at best misleading, to the point of being completely incorrect. All landholders in the region along with the weather stations maintained by the Comet Sustainable farming association hold years of rainfall and climate data.</p> <p>Emerald district have been on international news for our recent years of flooding. Cotton growers in the district have not picked a dry cropped for some 5 years. Located in the directly affect catchment of the mine our property s.73 irrelevant received 250 mm in three hours in January 2012. The damage from this storm has caused considerable damage to drainage structures such as contour banks and waterways. The bill to fix the damage came to s.73 irrelevant. I can forward on the invoice if you are interested. For Bandanna Energy to make false and misleading statements on storms and flooding such as these, to mitigate the risk of flooding is simple untrue.</p> <p>s.73 irrelevant information</p> <p>s.73 irrelevant information Our roads are currently not flood proof, and Bandanna's claim in Table 4.5 that they will upgrade to "higher level of flood immunity than currently exists" is not feasible or logistically possible.</p>	<p>Flood modelling has been undertaken using 86 years of historic data from Bureau of Meteorology (BoM) weather stations, assessing multiple flooding scenarios. BoM data is used as it provides the most accurate data over a historic period of 80 years or more, with known consistent collection methods allowing for direct comparison between multiple stations. The climate models used provide estimates based on simulated data from baseline sources which assess the probability of weather affecting the site based on historical weather patterns and predicted changes to the site.</p> <p>Assessment of storms and flooding for the climate change assessment has been based on CSIRO predictions for the area and how this may impact staff and the mining operations. The MIA has been sited on land which is above the 1:1000 ARI level reducing the risk of flooding. The assessment is considered robust and adequate for the purposes of the EIS assessments.</p> <p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs. The Emergency Response Plan will consider alternative routes and outline procedures should workers become isolated either at the mine site or along the travel route.</p>
41.09	Chapter 5 - Land	5.4.4 Soils The soil survey completed by CDM Smith was completely inadequate. Section 4.2.1.5 of the Terms of Reference state that the proponent must: Conduct a soil survey of the area that would be affected by the project in accordance with section 6.1	Conduct a soil survey of the area that would be affected by the project in accordance with section 6.1 Compilation of Land Resources Inventory (LRI) – Pre Mining Studies, of the Land Suitability Assessment Techniques in the Technical Guidelines for the Environmental Management of Exploration and Mining in	Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping was carried out at a scale of 1:50,000. This scale has been recommended by DNRM to

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		<p>Compilation of Land Resources Inventory (LRI) – Pre Mining Studies, of the Land Suitability Assessment Techniques in the Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland (DME, 1995).</p> <p>This manual stipulates that the average site density should exceed one sample per square centimetre of the map. Table 1 in the manual describes appropriate map scales for different project sizes. According to this Table, the scale for the SCC project (with a footprint of approximately 9,000 ha) would be 1:25,000. Based on recommendations within this manual, the soil survey should have included descriptions at 1,440 sites with 360 of those sites described in detail following the Australian Soil and Land Survey procedures. The remainder of the sites could have been described in lesser detail but sufficient to define the boundaries between different soils.</p> <p>REFER REVISED FIGURE 1 IN ORIGINAL SUBMISSION</p> <p>Figure 1 is taken from the EM Plan and shows the distribution of soil samples (observation sites and borehole locations). This shows that sampling frequency is grossly inadequate.</p>	Queensland (DME, 1995).	<p>provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites.</p> <p>Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008.</p> <p>Results from this study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision. Please refer to Chapter 5 – Land in the final EIS.</p>
41.10	Chapter 5 - Land	<p>5.7.4 Subsidence</p> <p>The Terms of Reference are that Bandanna: “Describe the short and long-term effects of subsidence on current and potential cropping areas with particular emphasis on changes to topography from differential subsidence, water flow, erosion, and consequential restrictions to farm machinery, agricultural practices and irrigation. Describe changes in the composition of vegetation communities due to areas of permanent ponding or changed drainage caused by subsidence.”</p>	<p>The EIS does not identify or describe changes to water flow, erosion and consequential restrictions to farm machinery.</p> <p>Map 1 below gives an indication of water flow across one area of subsidence. The EIS has not identified existing overland flow patterns and it has not explained the impacts of subsidence on the overland flow.</p> <p>REFER MAP IN ORIGINAL SUBMISSION</p>	<p>Within Chapter 5, section 5.7.4 - Subsidence and 5.7.6 - Erosion and Stability provide a summary of these issues. More detailed information regarding each is included in Chapter 12 - Ecology, and Chapter 8 - Surface water which provide an analysis of impacts resulting from subsidence on water flow and vegetation.</p> <p>The design rainfall Intensity-Frequency Duration (IFD) data for various storm events were derived based upon the procedures outlined in Book 2 of Australian Rainfall and Runoff (AR&R) 2001 edition. The purpose of assessing the 2010 (largest event on historical record) event hydrology was to determine whether this historical event was greater than the 1000 year ARI design event as the larger of the two would determine the flood risks and constraints of the site. This was at the request of DEHP (formally DERM). The 1000 year ARI was determined to be the greater of the two.</p> <p>Specific, historical rainfall events were not hydraulically modelled as part of the current study. Design events were simulated ranging from a 2 year average recurrence interval (ARI) up to a 1000 year ARI. These are statistical events and the range was selected to comply with current legislative requirements and to represent a</p>

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				<p>large range of potential storm events. All Bureau of Meteorology rainfall records available at the time of the study, in addition to stream flow gauging were collected.</p> <p>A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously - meaning a worst case scenario.</p>
41.11	Chapter 5 - Land	In section 5.6, Table 5-16, Bandanna explains the potential impacts of Subsidence: Topographical change due to subsidence – surface tension cracks across the Project area. These cracks may open up while mining of the coal face is nearby and close up once the face has moved, however some may remain for extended periods or permanently. The presence of cracks may alter hydrological properties of the surface by providing a pathway for fertilisers, pesticides and other contaminants into shallow aquifers. They then rate this is a medium risk.	Cropping will not be possible on areas where cracks remain permanently. This is permanently destroying some of the best cropping soils in Queensland and they consider that a medium risk!	<p>The risk assessment has been based on the frequency and consequence of particular events and a medium risk in this instance is appropriate.</p> <p>The MIA will be constructed and sited to minimise impacts associated with severe storms. From this point of view, there is a lower risk of severe storms impacting the MIA area. In relation to flooding and excessive rainfall assessment was made based on the MIA area not the MLA. Due to the positioning of the MIA it is considered impacts resulting from floods and excessive rainfall will be relatively low as the MIA has been sited above the 1:1000 ARI flood level.</p> <p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity.</p> <p>The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided land.</p> <p>With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p>
41.12	Chapter 5 - Land	Both the EM Plan and the EIS are very vague about mitigation measures for subsidence. It states that: "shallow ripping will be used and if necessary deep ripping to mitigate cracking". The	Map 2 below shows the expected ponding from subsidence with houses overlaid. This modelling was done using a superseded mine plan and the EIS does not adequately explain how this ponding will	Subsidence Management Plans (SMPs) will be developed prior to construction and operation, these will fully document control/mitigation measures to be adopted. These will then be

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		modelling only deals with land depression caused by subsidence and does not incorporate surface cracking or overburden fracturing.	<p>be managed in relation to the houses that are affected – most noteworthy being [redacted]. Given there are houses very close to expected ponding on this map – it is questionable how the new mine plan might affect those houses.</p> <p>REFER MAP 2 IN ORIGINAL SUBMISSION</p> <p>Map 3 below shows the subsidence model with the current mine plan overlaid in black. The modelling completed to show subsidence and consequently ponding was done using an old mine plan. The ponding pattern will change depending on the mine plan and therefore the modelling results are inaccurate.</p> <p>REFER MAP 3 IN ORIGINAL SUBMISSION</p>	<p>periodically reviewed and revised as required.</p> <p>SCC will be seeking to work with landholders on an individual basis to develop surface management plans on a longwall panel by longwall panel and paddock by paddock basis prior to mining being undertaken, taking into account farming practices at the time. The management plans will include measures for managing residual subsidence to minimise the impacts on agricultural practices.</p> <p>It should be noted that predicted subsidence levels are worst case scenarios and as such actual impacts may be significantly less. Ponding will be addressed by recontouring and levelling the land surface to ensure that natural drainage channels are reinstated. This has been addressed in more detailed in Chapter 8 - Surface Water of the EIS and Appendix A4-5.</p>
41.13	Chapter 5 - Land	Subsidence mitigation	Adequate explanation of mitigation measures for subsidence has not been addressed in the EIS or EM Plan. The EM Plan states that “Additional topsoil (if required) will be sourced from local suppliers in the Project area” (EM Plan page 18-142). It is questionable that this can be sourced given that the local area is dominated by cropping and therefore like-quality soil resources are already fully utilised. This shows lack of knowledge of the area and proves they have not seriously contemplated the strategies needed to rehabilitate the site properly.	Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This study has identified adequate topsoil within the project area. It is therefore not anticipated that additional topsoil will be required from local suppliers.
41.14	Chapter 5 - Land	Strategic Cropping Land	<p>[redacted] s.73 irrelevant information</p> <p>[redacted] s.73 irrelevant information</p> <p>As mentioned previously, irrigation has no bearing on SCL status of soil. The extremely rare soil properties of SCL is what makes it so precious. Irrigation water, on the other hand is transferable and can easily be traded or shifted away from land. In future years, irrigation water may not be available, due to climate change or other competing uses for water. Bandanna Energy has made many claims about the irrigated status of the land within the project, and also potential to increase irrigable area. SCL is all about the soils, we have some of the best producing soils in Queensland, and Springsure Creek Project should not be putting its future at risk.</p>	<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity.</p> <p>The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsided land.</p> <p>With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p>
41.15	Chapter 6 - Traffic and	Milroy Downs Road	It needs to stand as corrected that the Milroy Downs road is not partially sealed, it is 21 km of gravel with a small number of	The EIS has been updated to note that Milroy Downs Road is unsealed.

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	Transportation		<p>concrete culverts.</p> <p>This Milroy downs road is the next alternative route when the Minerva Creek is in flood on the Glenorina Road. It will therefore be used in times of wet weather and will not stand up to the heavy traffic load, as miners have no concept of down tools on wet days.</p>	<p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It should be noted this does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.</p> <p>SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
41.16	Chapter 6 - Traffic and Transportation	Minerva Creek crossing on the Glenorina Road	<p>The Minerva Creek crossing on the Glenorina Road is practically dangerous in flood as the meter post or water height measure is on the southern side of the crossing, often covered by grass. Motorist approaching from the Gindie side of the crossing that are unfamiliar with the road don't realise the causeway is lower than the road and thus water level is deceiving. s.73 irrelevant information s.73 irrelevant information Increased traffic on the Glenorina Road, especially drivers unfamiliar with the local road conditions and the unpredictability of flooded creeks pose an increased risk to themselves and the local community who has to rescue them.</p>	<p>As part of the design process for the upgrade of local roads, SCC will work with stakeholders including representative from the local community to discuss the design of local road improvements, including the Minerva Creek crossing on Glenorina Road.</p>
41.17	Chapter 6 - Traffic and Transportation	Impacts of increased traffic on local roads	<p>We have grave concerns not only for the state of our roads (practically the Glenorina Road) but for the sheer volume of traffic using this road. This is a farming community and thus our roads operate as one with spray rigs and other farm machinery often being moved. The increased traffic of 84% for light vehicles and 62% increase in heavy vehicle will be chaotic to say the least. This will result in huge cost, inconvenience and danger when shifting farm machinery.</p> <p>TTM group who conducted the Traffic and Transport Assessment, concluded that while the standalone site is not expected to have a significant impact, they had concerns for the cumulative traffic impacts on the Central Highlands region. So much so that they carried out a cumulative traffic impact assessment, this has not been attached and needs to be publically available. Their closing remarks are that the access route Gregory Highway / Glenorina Road needs to be upgraded.</p>	<p>SCC understands the road is a shared community asset and will endeavour to work with stakeholders, including landholders to manage any impacts. While the percentage traffic increase along local roads is high, the absolute increase in vehicles per day (vpd) is relatively low at approximately 400 vpd. As such the assessment of impacts is considered appropriate. Cumulative traffic impacts are addressed in Section 5.7 of the Traffic and Transport Report included as Appendix A4-4.</p> <p>SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>

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				<p>As part of developing a Road User Management Plan, further discussions will be held with a number of stakeholders including the Central Highlands Regional Council and the school bus committee. It is expected there will be ongoing engagement with the school bus committee to ensure awareness of changes in bus routes and bus stops to meet the changing needs of the community over time.</p> <p>SCC cannot comment on the traffic volumes for other projects. The anticipated traffic volumes within the EIS are particular to the Springsure Creek Project.</p>
41.18	Chapter 8 - Surface Water	<p>In 2005, The NSW Scientific Committee, established by the Threatened Species Conservation Act, made a Final Determination to list Alteration of habitat following subsidence due to longwall mining as a KEY THREATENING PROCESS.</p> <p>Their report found that: Mining subsidence is frequently associated with cracking of valley floors and creeklines and with subsequent effects on surface and groundwater hydrology (Booth et al. 1998, Holla and Barclay 2000, ACARP 2001, 2002, 2003). Subsidence-induced cracks occurring beneath a stream or other surface water body may result in the loss of water to near-surface groundwater flows.</p> <p>Of particular relevance to this project is their comment on ephemeral creeks: Impacts on the flows of ephemeral creeks are likely to be greater than those on permanent creeks (Holla and Barclay 2000).</p>	Note	<p>Noted. Modelling presented as part of this Project has assessed impacts on Flow rates and this has been presented on the EIS. Predictions presented in the EIS predicted between a 4-30% reduction in flow rates, with Springsure Creek only reducing by 4%. It should be noted that these estimates are unmitigated flow rate estimates. The impacts of subsidence on creek systems is further discussed and assessed in Chapter 12 Ecology of the EIS.</p>
41.19	Chapter 8 - Surface Water	Flood modelling	The flood modelling was done using an old mine plan. No consideration has been given to overland flow and the extent of flooding that frequently occurs in the areas between the creeks as a result of localised rain events.	<p>The design rainfall Intensity-Frequency Duration (IFD) data for various storm events were derived based upon the procedures outlined in Book 2 of Australian Rainfall and Runoff (AR&R) 2001 edition. The purpose of assessing the 2010 (largest event on historical record) event hydrology was to determine whether this historical event was greater than the 1000 year ARI design event as the larger of the two would determine the flood risks and constraints of the site. This was at the request of DEHP (formally DERM). The 1000 year ARI was determined to be the greater of the two.</p> <p>Specific, historical rainfall events were not hydraulically modelled as part of the current study. Design events were simulated ranging from a 2 year average recurrence interval (ARI) up to a 1000 year ARI. These are statistical events and the range was selected to comply with current legislative requirements and to represent a</p>

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				<p>large range of potential storm events.</p> <p>A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously. Further staged assessment will be undertaken as the project progresses to analyse in finer detail the effects of any likely changes to overland flow and ponding regimes and subsequent effects on individual properties. This will include likely effects on current soil management (including sediment and erosion controls), irrigation and general agricultural practises. Further liaison will be undertaken with individual affected property owners to further understand and mitigate likely effects on current agricultural practises.</p>
41.20	Chapter 8 - Surface Water	Localised Flooding	The flood modelling does not take into account localised flooding. It is common for the farms within the Mining Lease to receive rainfall events that cause shallow flooding across the entire area between Springsure Creek and Unnamed Creek 2 and between Station Creek and Unnamed Creek 2. This has not been allowed for and shows the lack of local data used throughout this entire EIS.	Please refer to the response to 41.19 above regarding the flood modelling.
41.21	Chapter 8 - Surface Water	Overland Flow	The EIS does not address overland flow and the potential impediments or accelerators. Changes in topography resulting from subsidence will affect the direction and speed of current overland flow patterns. The EIS has not identified current overlandflow patterns or potential impacts.	Overland flow is discussed in Chapter 8, section 8.5 of the final EIS. The EIS specifically discusses the impacts of stream flow, ponding and flood flows for a range of modelled scenarios. Additional information is presented in the technical report in Appendix A4-5. Within the water model, rainfall was applied directly to the entire project area and natural topography dictated overland flow and ponding.
41.22	Chapter 8 - Surface Water	Subsidence Surface Water Study The Subsidence Surface Water Study provided by ENGENY (Appendix A4-06) states in Section 8 of that report: "Monitoring of the condition of the waterways should be undertaken prior to and during mining to identify impacts on waterway stability and geomorphology, and the need for waterway rehabilitation works. Waterway monitoring programs are detailed in the ACARP guidelines for watercourse diversions (ACARP, 2011).	The EIS provides no commitment to monitor waterways as recommended by their consultant.	Chapter 18 - EM Plan outlines the monitoring to be undertaken. This includes monitoring of the condition of the waterway as requested.
41.23	Chapter 9 - Groundwater	The report provided by NTEC and included as Appendix A4-07a states that: Any pastoral bores located in areas of significant drawdown may need to be deepened or moved. This is in addition to any structural damage to bores occurring due to subsidence. In most cases, the Basalt aquifer will have sufficient saturated	This comment has not been sufficiently addressed in the EIS. Bandanna has not explained which bores may be deepened or moved and have not conducted appropriate testing to enable decision making. All landholder's bores in a 20km radius must be tested with baseline data collected, prior to the project	Since preparation of the EIS, where we have been able to gain the consent of landholders, additional hydro census, groundwater level, aquifer properties and water quality data has been collected from properties and groundwater infrastructure maps updated. Additional data has been gathered from further drilling operations.

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		thickness to enable deepening of wells while some may need to be re-located.	commencing; to compare other regular seasonal testing to if the project is to proceed.	<p>Using the additional data collected, both the hydrogeological conceptual model and the numerical model have been updated. A revised groundwater report has been prepared along with a mitigation and monitoring strategy. Please refer to Chapter 9 and Appendices 4-7a and 4-7b of the final EIS.</p> <p>Based upon the assessments undertaken, it is unlikely there will be any impact on the quantity or quality of groundwater from existing bores.</p> <p>SCC will implement a groundwater monitoring program to monitor the impacts of mining activity on groundwater and proactively address any potential impacts. In addition, we are seeking to enter into discussions with landholders to enter into compensation agreements regarding impacts as a result of mining, including impacts on groundwater infrastructure.</p> <p>Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low. Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>
41.24	Chapter 9 - Groundwater	The report provided by NTEC also states that: The model is considered to have a confidence level of 1, in accordance with the Australian Modelling Guideline (Barnett et al, 2012). This is due to the lack of suitable transient calibration targets, the prediction timeframe exceeding periods of hydrological observations and future stresses being more than 5 times the past stresses. Hence, some model parameters, upon which the model predictions are sensitive, cannot be determined from the currently available local data and instead these parameters can only be estimated from experience and analogy at similar sites and that model predictions need to be made for the range of likely model parameters.	Given that impact on Groundwater is one of the most critical issues for surrounding landholders, it is considered unacceptable that Bandanna are using a model that has a confidence level of 1.	<p>The model confidence level classification is defined in accordance with the Australian groundwater modelling guidelines and is based on a number of factors, including the relationship between past and future stresses and the length of prediction period relative to calibration period. Modelling is an iterative process. As additional data becomes available through ongoing groundwater monitoring the confidence level of model predictions will increase, supported by a better understanding of the effects of longwall mining in the Project area.</p> <p>Please refer to Section 9.5.2, Section 9.5.4.4 and Section 9.5.6 for further information regarding the implications of Model Confidence Level Classification.</p>
41.25	Chapter 9 - Groundwater	Groundwater monitoring	Most bores were only sampled twice. Those that were sampled more were only sampled within a two month period. This does not provide adequate results on seasonal variation.	As noted above, additional monitoring has been undertaken since the preparation of the EIS. Please refer to Chapter 9 in the final EIS.

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41.26	Chapter 9 - Groundwater	Groundwater drawdown	<p>There seems to be no inclusion of fracturing of the overburden due to subsidence in the modelling done for drawdown. It only allows for the effects of dewatering.</p> <p>Does the expected drawdown of 2m-19 m include allowance for drought years? The EIS notes that bore levels were the highest recorded. Is the (2m) reduction in water tables from this level (current high levels) or from the average? It is assumed from the EIS that the modelling was completed on current high water levels. We have experienced some of the wettest years on record, so potentially the cumulative impact of drought and mining induced drawdown will result in many bores being unusable.</p>	<p>The potential effects of fracturing are discussed in detail in Chapter 9, Section 9.5 of the final EIS. The base case model conservatively assumes that the fractured zone extends into the base of the Basalt by several 10s of metres in parts of the mine area. Local experience suggests that fracturing of Basalt is unlikely due to the depth of the seam and the geology of the Project area. Both scenarios are presented in the final EIS.</p>
41.27	Chapter 9 - Groundwater	Mitigation measures	<p>Stating that the mine plan may be changed to reduce drawdown is unacceptable. Mining engineers will not alter the mine plan to reduce an Environmental impact that may occur in 400 years. It is unlikely that there will be any EA conditions specifically relating to changing management or halting mining as a result of bore levels and the impact is so long term that the damage will be done before anyone sees an impact. Consequently, there will be no compensation or mitigation by Bandanna and landholders in 300-400 years will have no recourse when impacts occur.</p>	<p>The future water table may be modified in relation to the existing, or pre-mining water table. However, predicted drawdown at the water table is unlikely to impact the quality and quantity of the groundwater resource. The modelling assumes cracking of the Basalt, however local experience suggests that cracking and dewatering of the Basalt is unlikely. Therefore, modelling is conservative.</p> <p>The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low. While drawdown at the water table is predicted to peak 50-150 years from the start of mining, the maximum drawdown at registered bores is predicted to occur during the 40 year mining period. SCC will implement a groundwater monitoring program to monitor the impacts of mining activity on groundwater and proactively address any potential impacts. This will include monitoring of depressurisation at multiple levels below the Basalt can be used to identify possible cracking of the goaf and need to modify the mine plan before the impacts occur at the water table.</p> <p>Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p>
41.28	Chapter 9 - Groundwater	Groundwater Monitoring (18.5.4.10)	<p>As landholders we rely on groundwater supplies for stock domestic, and zero tillage pesticide spraying. We hold grave concerns over the contamination of and drawdown of the aquifers. As stated above; all landholders bores in a 20km radius must be tested with baseline data collected, prior to the project, to compare other regular seasonal testing to if the project is to proceed.</p>	<p>As noted above, additional monitoring has been undertaken in May 2013 and is documented in Chapter 9 of the final EIS. The groundwater sampling program which has taken place to date has targeted a number of bores in the area associated with the Project. These bores and sampling location have been selected to provide a representation of the area for groundwater assessment and</p>

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			s.73 irrelevant information	modelling. Additional groundwater data will be collected as part of an on-going assessment. The bores proposed to be monitored as part of the long-term monitoring are still being identified. The areas closest to the mine site are being targeted as any impact will become noticeable in these bores first.
41.29	Chapter 10 - Air Quality	Baseline monitoring	Members of our community who have met with Bandanna were given assurances that Air monitoring will occur at "Sensitive Residential Receptors"- this needs to be the case for all homesteads in the affected area. Bandanna Energy needs to collect baseline data for future comparisons, in the event that the project is to proceed (18.5.2.9). Bandanna Energy has told members of the community that they would only testing the air quality along the ridge lines. This would not give a true measure of air quality, as Katabatic Winds commonly form at night time and drain cold, dense air to lower lying areas.	Subsequent to the EIS being completed, additional baseline air quality has been undertaken. Air quality modelling undertaking has concluded that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations. Long term air quality monitors will be installed at a number of locations around the site. These monitors will be 'real time' meaning data from the monitors will be communicated to the mine site as it is collected enabling an immediate response to any issues raised.
41.30	Chapter 10 - Air Quality	Sensitive receptors - missing data	This section is missing essential data including identification of Sensitive Sites or Receptors as shown in Map 4 below. REFER TO MAP 4 IN ORIGINAL SUBMISSION We ask - What ground assessment has Bandanna really done? Below is an inconclusive list of property names where Sensitive Residential Receptors are located. This shows eleven missing properties primarily in the north westerly direction from the mine. This list needs to be extended to include all properties within a 20km radius of the mine for groundwater monitoring. REFER TO TABLE IN ORIGINAL SUBMISSION There has been no community consultation for a significant number of homesteads that have been left out of the EIS. Many other landholders that were included did not receive a copy of the EIS.	Sensitive receptors have been updated and added to maps and the table.
41.31	Chapter 11 - Noise and Vibration	Sensitive receptors - missing data	This section is missing essential data including identification of Sensitive Sites or Receptors as shown in Map 4 below. REFER TO MAP 4 IN ORIGINAL SUBMISSION We ask - What ground assessment has Bandanna really done? Below is an inconclusive list of property names where Sensitive Residential Receptors are located. This shows eleven missing properties primarily in the north westerly direction from the mine. This list needs to be extended to include all properties within a	Sensitive receptors have been updated and added to maps and the table.

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		<p>s.73, irrelevant information</p> <p>relevant information</p>	<p>20km radius of the mine for groundwater monitoring.</p> <p>REFER TO TABLE IN ORIGINAL SUBMISSION</p> <p>There has been no community consultation for a significant number of homesteads that have been left out of the EIS. Many other landholders that were included did not receive a copy of the EIS.</p>	
41.32	Chapter 11 - Noise and Vibration	<p>SCC are proposing that the mine will operate with only one mine ventilation fan. This is impossible for a mine of this size. They are already non-compliant with their proposed noise sources but would be further out of compliance if they included all noise sources.</p> <p>The EIS identifies that noise levels during operation will be outside compliance limits at Springton and Den Lo Park.</p>	<p>The mitigation measures proposed are insufficient with no serious commitments being made by Bandanna. It is noted that most of the mitigation measures described are administrative (e.g. Reversing will be minimised, plant will be used in accordance with manufacturer’s instructions, plant will be started sequentially). Given that the site will mostly be managed by Contractors, it is unlikely that these administrative controls will be enforced in anyway.</p> <p>All the Engineering controls are prefaced with statements such as “where practicable” and “will be considered”. There is no firm commitment to mitigate a known non-compliance. There is no doubt that a new owner or Joint Venture partner will opt for the most cost-effective strategy or option rather than the most environmentally appropriate option. Given that Den Lo Park is owned by Bandanna, the only likely complaints will come from Springton.</p> <p>Only one round of noise monitoring was completed which does not allow for seasonal variation.</p>	<p>Subsequent to the EIS being prepared, and in response to submitter concerns, additional noise monitoring has been undertaken. The total noise monitoring undertaken now exceeds the requirements for EIS assessment.</p> <p>Long-term noise monitoring devices will be installed and SCC will carry out noise monitoring to manage nuisance. Pending landholder permission, additional baseline monitoring will be carried out at all sensitive receptors ahead of construction and operation commencing in order to further establish existing conditions against which any impacts can be identified. A routine monitoring program will be implemented during the construction and operation phase of the Project. Monitoring activities will be undertaken at selected locations at Springton and Den-Lo Park homesteads respectively, where noise emissions have been predicted to be exceeded during the operational phase.</p>
41.33	Chapter 12 - Ecology	<p>Loss of Remnant Vegetation</p> <p>Section 12.8.1 from the EIS states that “The Project is unlikely to result in loss of remnant or regrowth vegetation”</p>	<p>However, based on the maps provided in the EIS, there will be over 100 hectares of remnant, Regional Ecosystems containing Endangered vegetation destroyed by dieback as a result of ponding.</p>	<p>The intent of the statement in Section 12.8.1 was to refer to clearing during the construction. The wording has been amended to make this clear.</p>
41.34	Chapter 12 - Ecology	<p>The ponding map (Figure 8-10 in Section 8.5.4) shows permanent ponding along Springsure Creek as a result of subsidence. In Chapter 8 they note that “Post-subsidence ponding (with no mitigation measures) will occur up to approximately 1 m depth and is primarily located within the subsided longwall panels, in particular within lower lying areas along the existing drainage lines and waterways.”</p>	<p>This ponding will definitely kill trees and degrade the ecosystem. However, this has not been addressed in Section 12.8.1 Disturbance to Remnant and Regrowth Vegetation. This section only addresses impacts resulting from clearing for infrastructure. It does present a remediation strategy of: “A revegetation program in the unlikely event that underground mining activities result in vegetation dieback”. Based on ponding alone, there will definitely be vegetation dieback.</p> <p>Map 5 below clearly shows the areas of ponding within Regional Ecosystems that contain Endangered Species. This is over 100ha of</p>	<p>It should be noted that the impact of permanent ponding is unmitigated. With the implementation of mitigation measures ponding will reduce. The wording in section 12.8.1 has been amended to provide further clarification regarding the monitoring of vegetation. Should mitigation of a loss of vegetation be required offsets can be implemented. It is however not anticipated that offsets will be required as the impacts to vegetation associated with the Project are considered manageable. Rehabilitation activities will be in place solely to provide a net benefit to the local flora and fauna communities and environment.</p>



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			<p>Endangered vegetation that will be destroyed. No allowance has been made for this in terms of mitigation or offsets.</p> <p>REFER MAP 5 IN ORIGINAL SUBMISSION</p>	<p>In the event of vegetation dieback or loss however, rehabilitation programs will provide a means to reinstate the vegetation community impacted, offsets will also be considered. The development of an offset framework and consideration of offsets is required as part of the ToR for the Project. Rehabilitation of vegetation communities and offsets are further discussed in Chapter 12 - Ecology.</p>
41.35	Chapter 12 - Ecology	The mine plan shows that the entire reach of Springsure Creek within the ML will be subsided.	<p>Given that Bandanna's main mitigation measure is to "shallow rip and if necessary, deep rip" cracking, it is obvious that trees will need to be disturbed. If no mitigation measures are put in place, then they will die from ponding or root disturbance as a result of cracking. These impacts are well documented in scientific literature as summarised by Dr Paul Frazier:</p> <p>"There have definitely been instances of surface vegetation dying and tree roots being disturbed, which can increase erosion", (Dr Paul Frazier, Eco Logical, Australian Mining, 2010).</p>	<p>The mine plan shows the entire reach of Springsure Creek has proposed longwall mining under it, therefore there is the 'potential' for subsidence. "Ripping" is not the only or primary main mitigation measure proposed but one of seven listed.</p> <p>Regarding the study referred to from three underground longwall mines over three years, one of which was located within the Bowen Basin, Dr Paul Frazier Frazier also said <i>"the team studied the affects on the vegetated and agricultural environments above and nearby longwall areas. At the conclusion of the study, the team had not found any major changes to the vegetation or the agricultural production in the selected studies"</i>.</p>
41.36	Chapter 12 - Ecology	<p>Terrestrial Fauna</p> <p>Section 12.5.2 claims that a detailed winter (dry season) flora and fauna survey was completed from 18 to 23 June, 2012.</p>	<p>However, the technical reports only present one fauna survey, which was completed by BAAM from the 6th to the 12th of December, 2011. This report that is provided as Appendix A4-11 is a draft report that has not been signed off by the consulting company. This would indicate that Bandanna were not happy with changes made to the final report and have intentionally submitted a draft. Given that BAAM were not engaged to complete the second, dry season survey, it raises questions about the validity of the second survey – or whether it was actually completed at all.</p> <p>The survey work completed in December 2011 is grossly inadequate because it was raining so much that landholders had to provide access with quad bikes for consultants and they can attest that traps were full of water.</p>	<p>Subsequent to the EIS, additional fauna surveys were undertaken from 31 May - 5 June 2013. This survey was completed in accordance with the methods stated within Chapter 12 of the final EIS. Chapter 12 has been updated to integrate the findings of the additional survey. The bad weather during the 2011 survey resulted in a loss 15% trap effort. This had no effect on the assessment of the potential presence of listed fauna species. However the precautionary principle has been applied (as it always should be) when addressing the potential presence of threatened species.</p>
41.37	Chapter 13 - Cultural Heritage	<p>Section 13.4.3.1 states that: "In 1948 the Queensland British Food Corporation was established as a joint venture between the Queensland and the United Kingdom governments to develop a large scale food producing enterprise in response to food shortages following World War II. The Queensland British Food Corporationscheme failed ..."</p> <p>The British Food Corporation failed because they tried to bring European farming techniques to Australia and apply them to Central Qld soils and climate.</p>	note	<p>SCC is committed to maintaining or improving agricultural productivity on subsided land and has demonstrated this commitment by investment in the independent Agricultural Co-existence Research Committee which has been established to guide co-existence research aimed at:</p> <ul style="list-style-type: none"> • Maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas; and • Understanding community expectations and identifying strategies

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		Over many decades of successful farming, Central Qld grain growers have developed unique, sustainable farming systems and techniques that work in our conditions. Bandanna is following in the footsteps of The British Food Corporation with unproven techniques, borrowed from overseas farms. History is littered with failed agricultural schemes, such as the Springsure Creek Project, who try to borrow farming techniques from a foreign land.		<p>to minimise adverse impacts and maximise the social and economic benefits of the mining investment.</p> <p>We have asked to be conditioned on co-existence making it a condition of an Environmental Authority that we demonstrate co-existence prior to mining activity extending beyond Den-Lo Park. We will be required to report on progress in meeting the specified performance on an annual basis to state government as part of annual compliance reporting.</p> <p>The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsidised land.</p>
41.38	Chapter 14 - Social Impacts	Farmers in the affected area are medium and large business operators who are currently under staffed as a result of the skilled labor being attracted to the vast mining industry in Central Queensland.	Table 14-5 on skilled labour shortages and that wage levels may therefore rise with local businesses needing to pass on higher costs to consumers is not possible for agricultural businesses who are price takers on international markets.	<p>Table 14-5 in Chapter 14 – Social Impacts identifies the potential social impacts of the project and mitigation and management measures are outlined in the Draft Social Impact Management Plan in Chapter 19 of the EIS. Table 19-5 in this Chapter identifies the following mitigation strategies to manage the potential for skill shortages and higher costs:</p> <ul style="list-style-type: none"> • Stakeholder Engagement • Housing and Accommodation • Workforce Management – Recruitment, Education and Training <p>Actions within each of these strategies have developed and will continue to evolve as the project progresses and engagement with stakeholders continues. It is the intention of Springsure Creek Coal to work with the local business community – both those that supply to the mining and agricultural sectors to maximise the opportunities for benefits and minimise potential adverse impacts.</p>
41.39	Chapter 14 - Social Impacts	Bandanna has had a team of experts working for years on this poor prepared and misleading submission. Landholders who are affected by this Springsure Creek project whose core business is farming have had to bear the cost and time to respond to this submission. Nearly all consultants we approached were already contracted to Bandanna Energy.	The social impact of responding to this Springsure Creek EIS has been very significant financially, business wise and personally.	The proposed Springsure Creek Coal Mine Project requires an environmental authority from the Department of Environment and Heritage Protection (EHP) along with tenure from the Department of Natural Resources and Mines (DNRM). An environmental assessment is required by the Environmental Protection Act 1994 for an Environmental Authority to be granted. This can be managed through either the submission of an Environmental Management Plan or an Environmental Impact Assessment. For projects managed through an EM Plan it is only once the plan has been submitted, assessed by EHP and a draft Environmental Authority has been prepared that the public is provided with the opportunity to comment on the project.

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				<p>For the Springsure Creek Coal Mine Project a voluntary EIS has been prepared which provides the public with an opportunity to comment on the project at the EIS assessment stage as well as the draft Environmental Authority stage. The timeframes for assessment of an EIS, including the time provided to the public to make comment, are outlined in the Environmental Protection Act 1994. It is the intention of Springsure Creek Coal to continue to engage with directly and potentially affected parties and other stakeholders as the project progresses.</p> <p>The approval process followed is intended to provide the greatest opportunity for the public, including landholders, to provide comment on the proposal and influence the assessment undertaken by State Government.</p> <p>Springsure Creek Coal is committed to continuing to work with directly affected and nearby landholders and other stakeholders as the project develops.</p>
41.40	Chapter 14 - Social Impacts	FIFO and DIDO workers	FIFO and DIDO have so many negative impacts on rural communities that it beggars belief that these councils could be in agreement. Not just to the community where the mine is, through use of roads and medical infrastructure without the benefits of increasing rate payers, but also to the single parents elsewhere, particularly for those children growing up without the stable male figure in the household. I personally believe we are breeding a new generation of people who I have concerns for and about.	Noted. No Action Required
41.41	Chapter 14 - Social Impacts	Bandanna has included and not referenced a lot of data on the social demographics of this region.	Using old figures were it suits them and trying to discredit rural communities as unhealthy, smokers who are overweight and alcoholic (14.3.6). This small rural area is unique; we have a younger and more educated group than the farming average and this group is highly motivated and determined to stop this destruction to prime food producing soils.	Baseline data included in the Social Impact Assessment is quantifiable data gained from the Office of Economic and Scientific Research (OESR) (now called the Government Statistician) and the Australian Bureau of Statistics (ABS). Data is based on census data which can be quite dated and not necessarily reflect social conditions at the time. The most recent census data available at the time the SIA was undertaken was from 2006. This data is also aggregated at quite a high level covering a much larger area than the immediate project neighbourhood. The data provides a baseline from which potential impacts of the project can be identified and measured.
41.42	Chapter 15 - Health and Safety	Sensitive receptors - missing data s.73 irrelevant information	<p>This section is missing essential data including identification of Sensitive Sites or Receptors as shown in Map 4 below.</p> <p>REFER TO MAP 4 IN ORIGINAL SUBMISSION</p> <p>We ask - What ground assessment has Bandanna really done? Below is an inconclusive list of property names where Sensitive</p>	Sensitive receptors have been updated and added to maps and tables.

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		<p>s.73, irrelevant information</p> <p>relevant information</p>	<p>Residential Receptors are located. This shows eleven missing properties primarily in the north westerly direction from the mine. This list needs to be extended to include all properties within a 20km radius of the mine for groundwater monitoring.</p> <p>REFER TO TABLE IN ORIGINAL SUBMISSION</p> <p>There has been no community consultation for a significant number of homesteads that have been left out of the EIS. Many other landholders that were included did not receive a copy of the EIS.</p>	
41.43	Chapter 16 - Economic	<p>The report provided by the consultant (AEC Group) engaged by Bandanna states that:</p> <p>While the Project will provide significant economic benefits, it may also result in adverse impacts within some cohorts of the regional, state and national economies, including:</p> <ul style="list-style-type: none"> • A potential increase in competition for skilled labour in the construction and mining industries, which could place upward pressure on wage rates to attract and retain skilled labour and result in some movement of labour between industries as workers are attracted to higher paying jobs; • A potential “draw down” effect on some businesses and industries if labour is drawn from businesses and they are unable to back-fill vacated positions. Lower income paying businesses and industries, or businesses operating at or near the margin will likely be the most affected as they have less scope to accommodate input price fluctuations; • Impacts on farming activities to properties in the Project Area. Farming activities may be impacted through disruptions during construction, subsidence issues, increased on-farm traffic, and potentially through noise, dust and vibrations. Farming activity is expected to be able to continue on these properties, though available land area and production may be reduced; • Potential to support the Australian dollar, which could adversely impact on trade exposed sectors of the economy such as agriculture, manufacturing and tourism by increasing the cost of domestic goods and services to foreign buyers; and • Potential increased demand (and prices) for residential property as a result of workers either temporarily or permanently migrating 	<p>These negative impacts have been largely ignored in the EIS document. Although the mining industry is experiencing a slump at the moment, these impacts have been a significant issue for the local communities in recent years. Furthermore, in Section 14.5 of the EIS (Cumulative Impacts) it is noted that 13 mines in the Emerald area produced 50Mtpa in 2010. Springsure Creek would therefore be producing approximately 18% of the area’s coal from a single underground pit. Increasing these negative economic impacts by 18% is a significant burden for the local community.</p>	<p>These potential impacts are acknowledged. Within Chapter 19 - Draft Social Impact Management Plan, strategies to address these, and other issues are outlined in draft action plans. The following draft action plans have been prepared:</p> <ul style="list-style-type: none"> - Agricultural; - Workforce Management; - Housing and Accommodation; - Local Industry Participation; - Community Health and Safety; and - Community Development. <p>These action plans will be finalised to take into account any requirements of the Environmental Authority.</p>

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		to the region and seeking accommodation. The Project will use a worker accommodation village to mitigate this impact, however, it is likely some of the Project's workers (and potentially some flow-on workers) will look to purchase/ rent property locally. The experience of recent mining projects in the Bowen Basin suggests this price impact could be above normal market growth and fluctuations.		
41.44	Chapter 18 - Draft EM Plan	<p>Sensitive receptors - missing data</p> <p>s.73 irrelevant information</p> <p>relevant information</p>	<p>This section is missing essential data including identification of Sensitive Sites or Receptors as shown in Map 4 below.</p> <p>REFER TO MAP 4 IN ORIGINAL SUBMISSION</p> <p>We ask - What ground assessment has Bandanna really done? Below is an inconclusive list of property names where Sensitive Residential Receptors are located. This shows eleven missing properties primarily in the north westerly direction from the mine. This list needs to be extended to include all properties within a 20km radius of the mine for groundwater monitoring.</p> <p>REFER TO TABLE IN ORIGINAL SUBMISSION</p> <p>There has been no community consultation for a significant number of homesteads that have been left out of the EIS. Many other landholders that were included did not receive a copy of the EIS.</p>	Sensitive receptors have been updated and added to maps and tables.
41.45	General - Financial Security	<p>Of significant concern is the financial status of Bandanna Energy. It is well known that they require a Joint-Venture partner to be able to proceed with mining. The company is traditionally an exploration company and therefore, it is believed that Springsure Creek mine will be sold as soon as possible if an approval is given. The new owner will have an approval with some very loose conditions. Commitments to develop a Subsidence Management Plan and a Rehabilitation Management Plan may be a requirement of the Environmental Authority (EA) but the new owner can propose conditions within those plans.</p> <p>Section 3.8.1 within Chapter 3 (Description of the Project) states that: "The Project is not expected to be decommissioned for approximately 40 years. Progressive rehabilitation and the allocation of adequate funds to fulfil rehabilitation obligations on mine closure are therefore required." There is no further detail of how these adequate funds might be provided.</p>	<p>The current bond system within the Queensland mining industry has proven to be inadequate. Mines have no requirement and no incentive to rehabilitate land to Best Practice standards and few comply with expected timeframes. The term "when land becomes available for rehabilitation" has been frequently abused to postpone the cost of rehabilitation. When mines are profitable, all resources (equipment and personnel) are focused on producing coal. When money becomes tight, the rehabilitation budget is the first to be reduced because of the long-term nature of the process.</p>	It is not a requirement of the EIS to demonstrate financial capabilities.

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s.73, irrelevant information

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42.01	General	The Terms of Reference received 2 June 2011 also received a special exemption within the Strategic Cropping Land Act 2011, providing for transitional arrangements with legislated requirements.	<p>I am concerned that the proponents are circumventing legislation 289 (1) that any future applications for EPC 891 are excluded by simply increasing the size of the project rather than process an application for expansion or a stage 2 at a later date which would not have qualified to receive the special exemptions.</p> <p>SUGGESTED OUTCOME The project should be limited in its production to reflect the final Terms of Reference 2 June 2011.</p>	<p>SCC has an exemption from the permanent impact restriction under Chapter 9, Part 3, Section 289 of the SCL Act. The exemption applies to any Environmental Authority application and any resource application for resource activities described within the EIS relating to EPC 891 (which MLA 70486 is wholly within). Section 290 of the Act sets out SCL protection conditions imposed on SCC pursuant to this exemption.</p> <p>Prior to any Environmental Authority or Resource Application, SCC must apply to DNRM for a protection decision in accordance with Section 95 of the SCL Act. This process is separate from the EIS assessment process which is undertaken by EHP. An Environmental Authority for the project cannot be issued without a protection decision having been granted by DNRM for the SCL. Further information regarding the SCL approval process is included in both Chapter 1 - Introduction, and Chapter 5 - Land within the final EIS.</p> <p>Differences between the TOR and EIS relating to the project description (e.g. coal production rate, number of longwalls, mine life and workforce profile) do not affect the conclusions of the EIS. The assessment presented in the EIS has been based on the description of the project within the EIS (i.e. 11 Mtpa, 2 longwalls, 40 yr mine life and current workforce) and actual assessment methodologies and scope would not vary as a result of these changes. The proposed management measures presented in the EIS are appropriate for a project of this scale. The differences between the project description presented in the TOR and EIS are not considered to be material changes in terms of size, location, nature or intensity.</p>
42.02	General	Request for SEIS for comment	As the proposed Springsure Creek Coal Mine has a direct impact upon our family and business, we respectfully ask that should any further details not included within this EIS be provided by the Proponent that we are allowed the opportunity to view and comment on these as well.	<p>SCC has aimed to contact landholders that made submissions and offer the opportunity to discuss their submission further. Copies of written responses to submissions have been provided to each submitter along with an electronic copy of the final EIS. The finalised EIS is also available on the project website www.springsurecreekproject.com. The final EIS is now subject to assessment by EHP and an EIS report will be released in due course in accordance with the statutory approvals process we are going through. The statutory process does not provide for the final EIS to be available for public comment.</p> <p>If however, you wish to discuss the project at any time please feel free to contact either Carolyn Summers or Michael Gray.</p>

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42.04	Chapter 8 - Surface Water	<p>8.5.5.1 Peak Flood Flows</p> <p>Modelling indicates that un-mitigated subsidence will generally reduce peak flows at the downstream boundary of the Project area (Figure 8-11) due to water being retained in the subsided longwall panels. This is primarily evident during low flow events such as the 2 year ARI events compared to the larger 50 year ARI event. Low flow events flow reductions are proportionally greater due to the ponded volume of water created by subsidence being a larger fraction of the catchment runoff water volume. Flow rates at Springsure Creek remained relatively unchanged irrespective of flood event size. Station Creek is predicted to have reduced peak flows (velocities) downstream as are un-named creeks 2 and 3 (refer to Figure 8-11). Un-named creek 1 exhibits an increase in flows which is due to predicting subsidence of the dam wall (Dam 2).</p> <p>Table 8-11 Peak flood flow comparisons downstream of the mine lease boundary</p> <p>Unnamed Creek 2 difference in peak flow post subsidence is a reduction in flow of -82%</p>	<p>Our immediate concern with this is that the overland flow that drains into the 2 Mile does not seem to be calculated appropriately. A lot of water flows when only 50mm of rain falls, with the 2 Mile cutting the Arcturus Road. This is upstream of the MLA Boundary. If the amount of water calculated is too conservative, and the longwall panels prevent the creek from draining, will the reduction in flows actually be greater, which way will the water go?</p> <p>From computer modelling and represented in Figure 8-7 and Figure 8-8 the impacts upon the 2 Mile in reduced flows and not continuing to drain, have our house and farming infrastructure under water.</p> <p>If the water data is conservative, then how much water will our home be under?</p>	<p>The design rainfall Intensity-Frequency Duration (IFD) data for various storm events were derived based upon the procedures outlined in Book 2 of Australian Rainfall and Runoff (AR&R) 2001 edition.</p> <p>A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously - meaning a worst case scenario.</p> <p>Further staged assessments will be undertaken as the project progresses to analyse in finer detail the effects of any likely changes to overland flow and ponding regimes and subsequent effects on individual properties. This will include likely effects on current soil management (including sediment and erosion controls), irrigation and general agricultural practices.</p>
42.05	Chapter 8 - Surface Water	<p>Figure 8-7 1,000 year ARI peak flood depth - existing scenario It should be noted that this Figure 8-7 is not existing scenario, and clearly shows subsidence channels.</p> <p>Figure 8-8 100 year ARI peak flood depth - post-subsidence scenario (no mitigating measures implemented)</p>	<p>The impacts of longwall mining upon the drainage to the 2 Mile appear to occur before the subsidence and planned longwall mining would occur on our property. I am concerned that although the Proponents would not be mining under our home, there would still be negative impacts upon our home as per the Proponents computer modelling.</p>	<p>Figure 8-7 is incorrect, this is post subsidence. This has been amended.</p>
42.06	Chapter 8 - Surface Water	<p>Table 8-13 Potential impacts to surface water</p> <p>Subsidence has the potential to result in sedimentation through:</p> <ul style="list-style-type: none"> Bank instability: Subsidence has the potential to cause bank instability of the existing waterways and farm dams particularly at the transition between pillar zones and longwall panels, where different sediment settlement rates occur Ponding: A reduction in flow velocity will result in sediment deposition within subsided area where ponding occurs <p>As subsidence occurs, sediment movement and minor erosion is likely to occur across pillar zones, and sediment deposition will occur in the subsided panels. Impacts to the larger waterways such as Springsure and Station Creeks are expected to be higher due to larger flow volumes. Impacts to the smaller un-named creeks are expected less significant and more gradual due to lower flow rates.</p> <p>8.7.4 Subsidence Impact Mitigation</p>	<p>We are concerned that the sediment and erosion controls are not yet developed. Our existing experience with rainfall and the gentle slopes across our property are that overland flow can create enormous repair bills. The alteration to soil stability due to increases in slope gradient, may have an impact upon the velocity of overland flow and as such the guttering that currently occurs in summer will be increased.</p> <p>Ponding will have a detrimental impact upon current cropping abilities. It is not a suitable outcome.</p> <p>Sour protection or revegetation as a mitigation suggestion will be contrary in nature to continued cropping. Best Management Practices for cropping, include crop rotations and fallowing of land from summer to winter as good management practices. This means that seasonally land is not planted from one summer crop to the following winter. Also considering climate conditions, in dry years no crops may be planted.</p>	<p>Noted. Please refer to the diagram included in Chapter 1 - Introduction to the final EIS. This shows at what stage of the project various management plans are prepared. All management plans, including an Erosion and Sediment Control Plan and a Subsidence Management Plan will be developed prior to the commencement of any construction activities.</p> <p>SCC will be seeking to work with landholders on an individual basis to develop surface management plans on a longwall panel by longwall panel and paddock by paddock basis prior to mining being undertaken, taking into account farming practices at the time. The management plans will include measures for managing residual subsidence to minimise the impacts on agricultural practices.</p>

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		<p>SCC will develop Subsidence Management Plans in order to prepare, manage, rehabilitate and/or remediate subsided areas (refer to Chapter 5 – Land for further detail). SCC will investigate and plan for all relevant features to be subsided prior to subsidence occurring. SMPs will be developed in consultation with the relevant landholder and EHP. As subsidence will be a staged process, an adaptive approach to SMPs will be undertaken, including for ongoing monitoring.</p> <p>Options which may be considered in SMPs for managing impacts on surface water may include:</p> <ul style="list-style-type: none"> • Ponding within waterways may be reduced by excavation through the pillar areas of longwall panels. This should be considered for minor waterways where magnitude of flows may not be great enough to facilitate natural erosion processes; • Where pillar zones are eroded naturally or excavated, and where new flow paths enter waterways, bank stabilisation may be necessary. Reshaping of stream banks and bank revegetation are options for mitigation of bank instability; • Drainage or lowering of dam water levels before predicted subsidence to ensure potential outflows from damaged dam walls are minimised; • Reinstatement and repair of dam walls may be necessary to make dams safe to operate following subsidence; and • Scour protection or revegetation may be required where channelisation along longwall panels causes surface erosion. 	<p>How can the Proponents be suggesting revegetation measures as a control for impacts of subsidence, whilst maintaining the area will remain as existing land use which is cropping?</p> <p>SUGGESTED OUTCOME The Proponent must develop a sediment and erosion plan and a subsidence management plan for discussion before this EIS can be processed.</p> <p>Included are photos taken 29/01/2011 showing a large gutter that developed post heavy rain. It is not a road, but is as wide as one and was not there the week before. This area of overland flow drains into the 2 Mile or Unnamed Creek 2.</p> <p>REFER TO PHOTOS IN THE ORIGINAL SUBMISSION</p>	
42.07	General	<p>We are concerned that the draft Environmental Impact Statement open for public comment for the Springsure Creek Coal Project does not comply with the Final Terms of References 2 June 2011.</p> <p>Firstly the Terms of Reference proposed was for a mine producing approximately 8 to 9 million tonnes per annum over a 25 to 30 year life span. Staff requirements outlined was for 300 employees during construction and 150 employees during operation. Staff Accommodation was to be located in Springsure and Emerald.</p> <p>In reading the EIS it is clear the proposal is now for a much larger project than originally outlined. The project is now to produce up to 11 million tonnes per annum, with two long walls in operation, over a lifespan of 40 years. Staff requirements are now projected to employ a peak workforce of approximately 350 people during construction, 585 during operation and 40 during decommissioning. Staff accommodation will have a mix of residential (already existing local homes) and a non-residential accommodation work camp providing up to 300 beds.</p>	<p>The project should be limited in its production to reflect the final Terms of Reference 2 June 2011.</p>	<p>As noted above, differences between the TOR and EIS relating to the project description (e.g. coal production rate, number of longwalls, mine life and workforce profile) do not affect the conclusions of the EIS. The assessment presented in the EIS has been based on the description of the project within the EIS (i.e. 11 Mtpa, 2 longwalls, 40 yr mine life and current workforce) and actual assessment methodologies and scope would not vary as a result of these changes. The proposed management measures presented in the EIS are appropriate for a project of this scale. The differences between the project description presented in the TOR and EIS are not considered to be material changes in terms of size, location, nature or intensity.</p>

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42.08	General	<p>Secondly, the EIS was to address the main features of the project and the initial development and construction phases including</p> <ul style="list-style-type: none"> • New rail load out facility • Coal handling and processing plant • Water supply dams and pipelines • Power supply infrastructure to receive power from the national grid east of the mine site • Run of mine and product coal stockpile • Waste disposal facility • Support infrastructure such as administration building, fuel/chemical storages and access roads. 	<p>I am deeply concerned by the omission of the rail load out facility, pipelines, coal processing plants and power supply infrastructure within the EIS itself. This infrastructure is vital to the project and will be required for the mine to become operational. The scope of this Environmental Impact Statement was to assess potential impacts associated with the construction, operation and decommissioning of the mine.</p> <p>From the Terms of Reference I believe that the infrastructure corridor, pipelines, rail load out and transport corridor would be included under construction and operation. And perhaps so did the Proponent, as at the start of each chapter outlining the project overview it is clear that the train load out facility and transport and infrastructure corridor were to be part of the completed EIS but have been omitted towards the end.</p>	<p>SCC has consulted with the Department of Environment and Heritage Protection (EHP) with regards to the appropriate assessment of the Project and its components, including the separate approval processes for the mine and infrastructure corridor/train load out facility.</p> <p>These approvals have been separated into three sections to:</p> <ul style="list-style-type: none"> - Align with approvals under the Mineral Resources Act 1989 (Qld) (MR Act) for appropriate Mining Leases (MLs), which trigger separate environmental approval processes to the mine - application for MLA 70502 has been made for the infrastructure corridor under the appropriate section of the MR Act (section 316); and application for MLA 70501 has been made for the train load out facility under the appropriate section of the MR Act (section 234(1)(b)) - Allow for a greater level of transparency to create opportunities to discuss infrastructure needs and placement with stakeholders prior to formal approval processes with State or Commonwealth governments; and provide information about the mine and its potential impacts, opportunities and management strategies, in the public domain as soon as possible - Align with the project development timeframe. <p>Any potential cumulative effects resulting from the Project mine and infrastructure corridor/train load out will form part of the latter's assessment and approval decision, as appropriate, as well as its mitigation proposals.</p> <p>With regards to a coal processing, reference to a coal processing plant has been removed from the final EIS as it is indicated one is not required. However, in the event a CPP is required any additional approvals will be sought under a separate process at the appropriate time.</p>
42.09	Chapter 1 - Introduction	<p>Springsure Creek Coal Pty Ltd (SCC) is proposing to develop the Springsure Creek Coal Mine Project.</p> <p>This is part of a broader Project by SCC which includes, in addition to the mine component, the following off-site infrastructure:</p> <ul style="list-style-type: none"> • A train load out facility (to load coal onto trains and provide a new connection to the Bauhinia Branch Line), and • A transport and infrastructure corridor (to move coal from the mine to the train load out facility and convey services between the two locations). <p>The inclusion of the blue box throughout the EIS is an admission</p>	<p>SUGGESTED OUTCOME</p> <p>The Proponents should be made to include relevant details regarding any missing infrastructure that will be needed for the operational phase before this EIS can be processed.</p> <p>It is also suggested that if the proponent wishes to separate the assessment processes, it must be made clear that the transport and infrastructure corridor and rail load out facilities:</p> <ul style="list-style-type: none"> • The approvals process will not be accelerated in any way to accommodate the proponents • It will not receive any special considerations or exemptions regarding the approvals process 	<p>As noted above, SCC has consulted with the Department of Environment and Heritage Protection (EHP) with regards to the appropriate assessment of the Project and its components, including the separate approval processes for the mine and infrastructure corridor/train load out facility. Any potential cumulative effects resulting from the Project infrastructure corridor and train load facility out will be addressed within the approvals for those components.</p> <p>Under the current provisions of the SCL Act, the transitional arrangements only apply to EPC 891. The proposed infrastructure corridor and train load out are located outside EPC 891 and</p>

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		<p>that project planning is nowhere near complete, and its simple inclusion does not void the requirement to meet the Terms of Reference approved 2 June 2011.</p> <p>The processing of separate approvals will create a piece meal approach and may fail to account for the cumulative impacts of the project as a whole within the region.</p> <p>Should the Springsure Creek Coal project receive approvals without the ability to transport its product to port, the pressure to approve a transport and infrastructure corridor and rail load out facility will be greatly increased.</p>	<ul style="list-style-type: none"> • Transitional arrangements within Strategic Cropping Land Act 2011 289 and 290 will not apply • It will not qualify as a development in exceptional circumstances within SCL Act 2011 • There is no sovereign risk involved as the proponent has chosen to split the approvals process 	<p>therefore not subject to the transitional arrangements. A separate approval decision under the SCL Act is required for the proposed infrastructure corridor and train load out facility.</p>
42.10	Chapter 20 - Key Commitments	<p>Chapter 20. Commitments lists many of the essential plans still to be developed:</p> <ol style="list-style-type: none"> 1. Sediment And Erosion Management Plan 2. Subsidece Monitoring And Management Program 3. commits to Upgrading The Local Access Roads will also provide for Increased Flood Immunity 4. SCC will develop a Road Use Management Plan (RUMP) and a 5. Traffic Management Plan 6. SCC will commit to developing a comprehensive Water Quality Monitoring Program developed to monitoring the potential impacts of subsidence on altered stream morphology, including increased sedimentation, surface water flow rates and water depth (including ponding). 7. In the event that significant erosion and sedimentation is occurring at rates that are not sustainable in the impacted waterways or in the event that pooled areas are not decreasing between aerial surveys, A Stream Rehabilitation Program will be implemented. 8. SCC will develop a Noise And Vibration Monitoring Program 9. SCC will develop a Weed and Biosecurity Management Plan 10. An Ecological Monitoring Program will be developed to assess several features within the Project area including, wetland and stream health, flora health and impacts to fauna species including significant species such as the Koala. 11. The Project will develop a Historical Heritage Management Plan 12. SCC will prepare and implement a Safety and Health Management System (SHMS) 13. An Emergency Response Plan (ERP) will be developed 14. SCC will develop and implement a Local Content Strategy 15. SCC will develop appropriate Strategies To Minimise Impacts On Agricultural Production, including in areas of SCL to the extent possible and leasing back land acquired as part of the development but not directly required for mining activities to allow existing 	<p>In reading the EIS, it has become apparent that many of the mitigation plans and strategies are yet to be developed, as such the Draft Environmental Management Plan (Draft EM Plan) cannot be viewed as a completed document. It is difficult to assess the immediate and cumulative impacts and mitigations measures if these details are yet to be developed.</p>	<p>Please refer to Chapter 1 - Introduction in the final EIS which provides a graphical representation of the environmental management process and at what point management plans are developed. It is not appropriate to develop management plans without understanding potential restrictions (conditions) on the development of the mine imposed through the Environmental Authority. It is also inappropriate to develop management plans prematurely without adequate information. For example, with mining not scheduled to take place on some properties for a number of years it is inappropriate to develop management plans based on current cropping regimes and farming practices, and without consideration of technological advancements in farming practices and the benefit of the co-existence research and experience of mining having taken place on Den-Lo Park.</p>

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		agricultural practices to continue.		
42.11	General	There is a failure within the EIS to outline in what ways the proponent plans to meet SCL Protection Conditions. As complete plans are not included within the EIS it is impossible to assess the immediate, cumulative and long term impacts the proposed project will have. Until full and detailed plans are developed it is impossible to meet the legislated requirements of the Strategic Cropping Land Act 2011.	More information is required regarding Conditions to be applied and what these conditions are. Are the examples given within the Legislation actual Protection Condition Requirements?	<p>The assessment of the project on against the SCL Act is being carried out in parallel to the EIS process. Through this parallel process additional SCL protection conditions may be placed on the project. Notwithstanding this, section 290 of the SCL Act lists the following protection conditions which must be attached to any approval of the project:</p> <p><i>"(a) it is a condition of the [mining] lease that no open cut mining can be carried out under the lease</i> <i>(b) The holder of the environmental authority must use all reasonable endeavours to rehabilitate all impacts on the land from underground coal mining carried out under the lease</i> <i>(c) the conditions are SCL protection conditions</i> <i>(d) This condition does not limit or otherwise affect the power, under Chapter 3, part 4 of the SCL Act, to impose other SCL protection conditions for the authorities that are not inconsistent with the conditions."</i></p> <p>The proposed management of impacts as set out within the environmental management framework presented in the EIS will be refined as the project progresses. This includes the further development of the Springsure Creek Agricultural Plan.</p>
42.12	Chapter 5 - Land	<p>The Proponents discussion within the EIS regarding this relevant legislation in section 0.5 LAND 5.2 Relevant Legislation and Policies 5.2.4 Strategic Cropping Land Act 2011 Fails to outline the full extent of the legislation that the proponent will have to address. 290 (1), (2) and (3) are mentioned, but not (4) and (5) which will have the greatest impact upon the Project and the ability of the Proponent to meet their legislated requirements.</p> <p>Although exempt from the SCL Act is a misleading statement within the EIS. SCC has legislative requirements within the Strategic Cropping Land Act 2011 that must be met regarding EPC891.</p>	That the Proponent provides full details, management plans and costs regarding how they will meet the legislated requirements of the Strategic Cropping Land Act 2011 affecting EPC 891 before this EIS can proceed.	This section of the EIS has been reworded such that context is not misinterpreted. SCC will develop and implement all management plans prior to construction of the mine. These plans are being developed to be in line with SCC commitment to ensure agriculture and mining can coexist.
42.13	Chapter 5 - Land	<p>The sitting of the MIA on the land already owned by SCC is in the area of irrigation and water supply channels. It is not the least productive land. It is marked as SCL</p> <p>Control measures to minimise adverse impacts on SCL are detailed throughout both this chapter and Chapter 3 –Description of the Project. Further details on the SCL Act are provided in Chapter 1 – Introduction</p>	<p>The Proponents must develop a full management and control program to minimise the adverse indirect impacts upon SCL before this EIS can be processed.</p> <p>The Proponents Environmental Authority should be limited to the proposed infrastructure site only to minimise any future impacts upon SCL area, should the MIA be alter after this process.</p>	The MIA has been designed and sighted (where practicable) to minimise impacts on SCL land on the Den-Lo Park property. The design has been modified to reduce the overall size to 60 ha. On completion of the Project it is the objective of SCC to restore and rehabilitate the land used by the MIA to suitable agricultural use.

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		The Proponents discussion on minimising adverse impacts has been limited to the 'direct' impact of the MIA and no weight is given to the impacts upon other SCL land within the project area.		
42.14	Chapter 14 - Social Impacts	<p>I wish to make clear that at no time were we contacted by the proponent to request specific interviews to discuss the impacts of the project to our family and business despite being one of the affect landholders within the MLA 70486. General discussions have been held over the years speaking about the mine with Peter Binnie and David Campbell (Bandanna employees at the time), § 73 irrelevant information and Graham Spackman (Spackman and Associates).</p> <p>We received an Entry Notice for Preliminary Activities on Private Land with the Period of Entry 21/11/2011 to 21/05/2012. (Included Reference A) Proposed Activities listed activities included environmental sampling including Flora and Fauna which may involve netting and nocturnal access for spotlighting. Survey for the purpose of locating property boundaries, boreholes and wells and sampling sites. Sealing and rehabilitating of existing boreholes, involving the removal of casing, cementing and restoration of site.</p> <p>During this EIS process we had a visit from Prue Pettett seeking a survey site in the 2 Mile (Unnamed Creek 2). Prue popped in with a business card, we had a chat and helped her gain access to an acceptable site, as the 2 Mile springs were running hampering site choices. It rained that afternoon. Access became difficult due to the high creek flows, as reported in 12.Ecology.</p> <p>Apart from this, no other specific requests for soil samples, water bore testing, or house site inspections for sensitive receptors were ever made by consultants. We have noted within the EIS at 5.4.3.5 Overburden, that site SPR030C was used as a sampling site for data. This exploration site is within our farm boundaries.</p> <p>The reference within the EIS to insufficient data due to landholders restricting access is offensive and untrue and I do not believe that the proponents have fulfilled their requirements to consult with affected landholders.</p>	The proponents must be made to complete a detailed survey of all affected landholders so that essential data is collected before this EIS can be processed.	<p>Up until the public notification of the EIS consultation with landholders was focussed around individual meetings, predominantly associated with rehabilitation of previous drilling activity. Subsequent to this landholder engagement has continued, mainly on an individual basis through compensation discussions, restricted land identification and other EIS and Mining Lease related activities.</p> <p>A number of directly affected landholders attended a public information session in Springsure and many nearby landholders attended a similar session in Gindie. At these meetings, and subsequent to that there has been an open invitation for any landholders, whether individually or in a group, to further discuss the project with representatives of Bandanna Energy and SCC, including our technical specialists.</p> <p>As a result of this invitation, a number of meetings and further discussions have taken place with landholders in the area. These discussions have mainly focussed on monitoring of groundwater, air quality and noise, and some additional monitoring has taken place.</p> <p>During the preparation of the Supplementary EIS, direct contact has been made with all submitters, including directly affected and nearby landholders who made submissions, and an invitation to discuss the project, their submission to the EIS, and any other related issues, has been made. Further meetings and discussions have been held with a number of landholders regarding the project.</p> <p>SCC is committed to developing positive relationships within the local community and being open and transparent in all of our communications and discussions about the project. If at any time you wish to discuss the project, please contact Michael Gray or Carolyn Summers.</p>
42.15	Chapter 14 - Social Impacts	With regards to 14.Social Impacts Final 14.2.2 Public Consultation, I am concerned by the statement Interviews with property owners were limited to Den-Lo Park, as other landowners had requested group meetings and compensation for those meetings that was considered excessive. This appears to be a blurring of the truth at the proponents convenience.	The proponent must be made to complete a detailed survey of all affected landholders regarding any impacts the project may have on our family and businesses before this EIS can be processed.	Up until the public notification of the EIS consultation with landholders was focussed around individual meetings, predominantly associated with rehabilitation of previous drilling activity. Subsequent to this landholder engagement has continued, mainly on an individual basis through compensation discussions, restricted land identification and other EIS and Mining Lease

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		<p>In March 2012, affected landholders partook in an Environmental Audit to have the proponent return to rehabilitate exploration sites. Letters were sent to Bandanna outlining new processes for ongoing consultations including requests for group meetings (Included Reference B). This was accepted in correspondence from Bandanna, letter dated 29 August 2012 (Included Reference C) with the understanding that individual meetings would still be required to take place. And they have.</p> <p>Letter dated 10 October 2012 from Bandanna Energy, under the heading Ongoing Consultation includes the proposal to schedule a group meeting in November 2012, and a one line reference to the Environmental Impact Statement (EIS). There is an offer to pay for our time to attend this meeting, and if interested to contact with preferred dates. This meeting did not proceed. (Included Reference D)</p> <p>I cannot find correspondence prior to this letter that discusses the EIS.</p>		<p>related activities.</p> <p>A number of directly affected landholders attended a public information session in Springsure and many nearby landholders attended a similar session in Gindie. At these meetings and subsequent to that, there has been an open invitation for any landholders, whether individually or in a group, to further discuss the project with representatives of Bandanna Energy and SCC, including our technical specialists.</p> <p>As a result of this invitation, a number of meetings and further discussions have taken place with landholders in the area. These discussions have mainly focussed on monitoring of groundwater, air quality and noise, and some additional monitoring has taken place.</p> <p>During the preparation of the Supplementary EIS, direct contact has been made with all submitters, including directly affected and nearby landholders who made submissions, and an invitation to discuss the project, their submission to the EIS, and any other related issues, has been made. Further meetings and discussions have been held with a number of landholders regarding the project.</p> <p>SCC is committed to developing positive relationships within the local community and being open and transparent in all of our communications and discussions about the project. If at any time you wish to discuss the project, please contact Michael Gray or Carolyn Summers.</p>
42.16	Chapter 3 - Description of the Project	Excavated waste requirements in the ToR (3.6.2 of ToR)	<p>The proponent has failed to adequately address the issue of Excavated Waste within the EIS.</p> <p>Whilst there is a measurement within the EIS, describing the amount of excavated waste, there are no illustrations of the location and cross sections for proposed dumps on the map which will be required during both the construction and operational phase. Chapter 03.Description of the Project should have provided details of such.</p> <p>The initial excavation of the entry and drift will create material that is proposed to be utilised in the construction of the MIA and infrastructure internal roads as needed, but there is no indication as to where this will be stockpiled and for how long.</p> <p>The Proponent must be made to fulfil the Terms of Reference</p>	<p>Construction works would be contained within the footprint of the proposed MIA. Initial works prior to construction commencing would establish environmental management measures to contain works within the MIA so that risk of emissions to the surrounding area is reduced. Construction works would be undertaken for a period of 3 years during which time a number of materials would be bought to or stored on site, including materials won from excavation.</p> <p>Any storage of overburden from extraction of the cut and cover and the drift will be within the MIA. All overburden will be re-used onsite for the construction roads within the project area, etc. There will be no long-term storage of overburden. We are seeking 100% yield from mining and there will be no tailings or tailings storage facilities required.</p>

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			received 2 June 2011 before this EIS can be processed.	
42.17	Chapter 3 - Description of the Project	<p>3.4.5 Mining Sequencing It is anticipated that coal production from the first longwall will commence in 2016. Development coal will be extracted during construction of the drift and the establishment of the first longwall, and will be exported.</p> <p>The estimated quantities of products and wastes produced over the mine life is summarised below: Springsure Creek Coal Mine Project – Description of the Project 3-30</p> <ul style="list-style-type: none"> • Approximate total product coal 420 Mt; • Yield: 100%; • Excavated material during construction of the mine access is 526,000 cubic metres (m³); and • Zero waste - If dilution is encountered it will be handled with a CPP and rejects stored underground. 	<p>There are no details for a Coal Processing Plant within 03.Description of the Project. The impacts of a Coal Processing Plant upon existing environmental values for noise and vibration and air quality are not included within the EIS. The increase need for water required for a Coal Processing Plant is not calculated within the EIS. The discussion for a Coal Processing Plant is a requirement within the Terms of Reference.</p> <p>The Proponent must be made to fulfil the Terms of Reference received 2 June 2011 before this EIS can be processed.</p>	Reference to a coal processing plant has been removed from the final EIS as it is indicated one is not required. However, in the event a CPP is required any additional approvals will be sought under a separate process at the appropriate time.
42.18	Chapter 3 - Description of the Project	<p>Section 3.7 Waste Management There is no specific site area mentioned within 03.Description of the Project as to where rejects will be stored. It would be reasonable to assume that there is some level of reject, not every tonne of coal extracted will meet export requirements.</p> <p>There is no discussion within the EIS as to when the rejects will be returned to underground. As the mine area will subside during operation, will rejects be returned on a daily basis? Will rejects be stockpiled for only a short time? Or will the returned action take place at close of the drift after 40 years?</p> <p>There is no infrastructure related with a return included within the MIA as described in 03.Description of the Project. It would appear that there is only one conveyor for out load.</p>	<p>The Proponent must be made to provide full details as to the viability of the mitigation suggestion of returning rejects to underground.</p> <p>The Proponent must be made to provide full details as to any storage or stockpile area that will be required for rejects.</p> <p>The Proponent must be made to provide full details as to the process of how, when, where and how long.</p>	The proposed Project is based on the assumption that no rejects are generated. Any storage of overburden from extraction of the cut and cover and the drift will be within the MIA. All overburden will be re-used onsite for the construction roads within the project area, etc. There will be no long-term storage of overburden. We are seeking 100% yield from mining and there will be no tailings or tailings storage facilities required.
42.19	Chapter 3 - Description of the Project	<p>3.7.2 Excavated Waste Construction access to the underground mine will involve excavations to create the cut and cover and the drifts All overburden (including sub-soils and weathered rock) will be used for construction of the MIA and other infrastructure. Topsoil and alluvial soils would be retained onsite and reused as part of site rehabilitation (refer section 3.8 below for further details on rehabilitation). All of these materials are relatively geochemically inert and have low acid forming potential (refer to Chapter 5 – Land for geochemical properties). Intercepted coal during the construction of the drifts will be stockpiled on the designated</p>	<p>Given the information and conclusions, is the use of overburden material suitable for the use of construction within the SCL Protection Area? Is it improbable that this material will remain as rock when used in construction or used for internal road connections? What impacts will the uses of such overburden have upon the land within the SCL Protection Area?</p> <p>SUGGESTED OUTCOMES More information is required from the Proponent before approvals for this process can be granted.</p>	All extracted materials to be used for construction will be used within the proposed mine infrastructure area. This would be the only above ground footprint of the project. Excavated material would not be used outside the mine infrastructure area. The mine infrastructure area would be a contained area i.e. surrounded by appropriate drainage and fencing, that would minimise the risk of emissions to land, air or water. No impacts are expected on strategic cropping land outside the MIA as a result of overburden material.



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		stockpile pad for future export. Anticipated overburden excavation quantities during the construction phase are outlined in section 3.4.5.		
42.20	Chapter 5 - Land	<p>5.4.5.6 Cut and Cover Excavations</p> <p>It has been estimated that the Mine Infrastructure Area (MIA) will occupy 60 ha of land once constructed. An area of approximately 2.7 ha will be excavated for the purpose of the cut and cover of the mine. For drifts (for a single longwall), based on the cross section of each drift being approximately 5.5 m by 4.5 (in the Bandanna Formation) with lengths of 1,688 m and 1,775 m (excluding cut and cover), the total volume of material removed will total 86,000 cubic metres (m3). It is expected during the life of the mine (40 years) that the overburden volume of the cut and cover and drifts will cumulatively equal 526,000 m3.</p>	<p>Should the overburden be deemed as not suitable for the use in construction and internal connection roads, what other options are being considered for the overburden?</p> <p>The estimated area for the Mine Infrastructure Area of 60 ha is inconsistent with other data provided within the EIS. This issue is being addressed within the Golden Triangle Community Response regarding the inconsistencies with data, mapping and inaccurate representations.</p> <p>SUGGESTED OUTCOMES</p> <p>More information must be sought from the Proponents as to the suitability of the overburden as a construction material for the MIA and internal connection roads. More information must be sought from the Proponents to alternatives for the overburden should it not be suitable for construction.</p> <p>In reading the EIS I have found repeated references to gravel, either accessed from an onsite quarry or sourced within the project area.</p>	<p>Geotechnical assessments to date indicate that the overburden material is suitable for construction of MIA infrastructure.</p> <p>Inconsistencies within chapters of the EIS regarding the footprint of the MIA have been corrected. The MIA will occupy 60ha.</p>
42.21	Chapter 3 - Description of the Project	<p>Current designs indicate a requirement of approximately 6.3 km of sealed roads and unsealed for access around the MIA and CHP. Unsealed tracks for accessing remote infrastructure elements (e.g. vents), will be identified and cut during the construction phase of the Project. Approximately 6 km of access tracks will be required. A summary of onsite road infrastructure is presented in Table 3-7.</p> <p>Foundation materials to construct on-site infrastructure including roads will be sourced from the cut and cover and drift excavations. In the event that materials excavated are not sufficient to construct all onsite infrastructure, SCC will investigate the possibility to source basalt from within the Project area. This may require blasting.</p> <p>3.3 3.3 Key Construction Elements</p> <p>Possibility of ongoing blasting to excavate additional construction materials from onsite quarry, if required</p> <p>3.6.7 Forestry Products and Quarry Material</p> <p>No timber resources will be taken or produced as part of the Project. Quarry material may be sourced for construction of MIA and future mine operational requirements utilising an onsite</p>	<p>With regards to the current availability of gravel within the immediate project area, there is NO onsite quarry located on Den-Lo Park. I am concerned that the Proponents may undertake to an action not described within the EIS, except for the above vague references.</p> <p>I am concerned also that the Proponents may seek to consume the available gravel within the Project Area or local community with disregard to its current needs and uses.</p> <p>Local gravel is made available to the current Central Highlands Regional Council at no cost and in times gone by the former shires of Bauhinia and Emerald at no cost. This was because interconnecting roads within our region are for the most parts gravel. Gravel roads on black soil plains required up keep and re sheeting at regular intervals. Gravel is also used to provide on farm access tracks by landholders.</p> <p>The Proponents suggestion to seal a small section will not take away the presiding need for access to gravel within the community to maintain the community road infrastructure.</p>	<p>Quarry material may be sourced for construction of the MIA and future mine operational requirements using an onsite quarry. The majority of quarry material would be sourced from extraction of the cut and cover or drift, with any further requirements met within the proposed Project area. It is not expected that any off-lease sources of extractive materials would be required at this stage. This information has been added to the EIS (Chapter 2 - section 3.6.7). Detailed design work regarding quantities and sources would be determined following completion of the EIS process, in consultation with advisory agencies.</p>



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		quarry.	<p>Emptying out of the local gravel within the Project area, may have an impact upon the CHRC ability to maintain community roads and also the costs of doing such if it has to be purchased, or sourced and transported from further afield.</p> <p>SUGGESTED OUTCOME The Proponent must be made to source gravel or construction materials from existing supply chains such as registered local quarries, rather than developing an onsite quarry or consuming local gravel. Included below are photos taken 13/03/2013 illustrating the current state of gravel roads within the immediate Project Area, the re-sheeting program that is taking place and also the visual quality of the gravel available to the local community</p> <p>REFER PHOTOS IN ORIGINAL SUBMISSION</p>	
42.22	Chapter 4 - Climate	<p>4.3.1 Storms Severe thunderstorms cause more damage than any other natural hazard in Australia and can result in flash flooding, significant soil erosion, large hailstones and destructive wind gusts (Emergency Management in Australia (EMA) 2012). In Queensland, the most severe storms occur between September and March and coincide with increased solar energy (EMA 2012). The Project area has an average annual lightning ground flash density of two to three strikes per square kilometre per year (km²/yr), as shown in Figure 4-12. Thunder was recorded at the Project area on average 20 – 25 days per year (Figure 4-13). The prevalence of severe thunderstorms within the Project area is expected to be low because severe storms were generally confined to small localised areas along the coast.</p> <p>4.3.2 Cyclones The Project area's inland location in conjunction with the low probability for tropical cyclones to develop in the region suggest that the potential for the Project to be directly impacted by tropical cyclones and storm conditions is low. It is more likely, however, that indirect impacts of a tropical cyclone occurring elsewhere, such as flooding in the region, may affect the the Project area.</p> <p>Table 4-5 Impacts and mitigation measures associated with climate Construction, Operation and Decommissioning Severe Storms The total number of lightning strikes and days where thunder occurred in the region suggests that potential impacts of storms on</p>	<p>I am concerned that the Proponent has failed to address the climate extremes that will face the MIA infrastructure and in doing so, the safety of staff during construction and operation. Chapter 04 Climate repeatedly states that severe storms, likelihood and impacts, are a risk of low.</p> <p>With regards to severe storms that occur within the MLA boundary and wider Project area I wish to make note that the Risk Level should be considered Medium to High, particularly with potential dangers to staff safety.</p> <p>SUGGESTED OUTCOME A detailed survey of Landholders within the MLA Boundary and the wider Project area regarding our experiences with weather extremes is required before this EIS can proceed A detailed investigation into specific storm events recorded by BOM including the severe storm warning system is required so that Hazard and Risk assessments can be made.</p> <p>The above must be done before the Proponent can consider the frequency and magnitude of these events together with the risk they pose to management of the project.</p> <p>REFER TO PHOTOS IN ORIGINAL SUBMISSION</p>	<p>The risk assessment has been based on the frequency and consequence of particular events. While it is acknowledged that severe events occur in the region, their relative frequency is significantly lower than many other regions throughout Queensland. Further clarification has been made in the final EIS relating to the risk rating of severe events.</p> <p>The MIA will be constructed and sited to minimise impacts associated with severe storms. From this point of view, there is a lower risk of severe storms impacting the MIA area. In relation to flooding and excessive rainfall assessment was made based on the MIA area not the MLA. Due to the positioning of the MIA it is considered impacts resulting from floods and excessive rainfall will be relatively low as the MIA has been sited above the 1:1000 ARI flood level.</p>

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		the Project area will be relatively low. The potential for excessive wind and cyclonic events to occur is also low and unlikely to pose a risk on the Project Low		
42.23	Chapter 4 - Climate	<p>4.6.2 Potential Impacts</p> <p>Changing weather patterns and the changes in the probability of occurrence of extreme weather events may pose an operational challenge which should be considered as part of Project design. This requires a risk assessment involving the identification of potential impacts on operations and human safety, the probability of their occurrence, and uncertainty (see Table 4-6).</p> <p>Intense storm and severe weather events</p> <p>Frequency or intensity of severe weather events is not anticipated to change significantly as a result of climate change. As a result, minimal to no impacts are anticipated.</p> <p>LOW</p> <p>Flooding events</p> <p>It is not anticipated that the Project will be adversely impacted by intense storm and flooding events, as described in Chapter 8 – Surface Water. Climate change prediction for the region suggest that the frequency and severity of such events will not alter significantly from current patterns</p> <p>LOW</p> <p>In using such a conservative assessment process regarding storms the Proponent fails to suggest Mitigation Measures that would be deemed suitable for the actual hazard they present.</p> <p>4.7 Mitigation Measures for Potential Changed Climatic Condition</p> <p>4.7.2 Intense Storm and Severe Weather Events</p> <p>Intense storm and severe weather events are not anticipated to significantly increase as a result of climate change and, as such, are not considered a significant threat to the Project. All infrastructure on-site however, will be constructed to Australian standards and policies. In instances where design standards are seen to be below that of the SCC's requirements for safe operation, measures will be adopted to improve design to strengthen structures.</p>	<p>I am concerned that the Proponent has failed to address the climate extremes that will face the MIA infrastructure and in doing so, the safety of staff during construction and operation. Chapter 04 Climate repeatedly states that severe storms, likelihood and impacts, are a risk of low.</p> <p>With regards to severe storms that occur within the MLA boundary and wider Project area I wish to make note that the Risk Level should be considered Medium to High, particularly with potential dangers to staff safety.</p> <p>SUGGESTED OUTCOME</p> <p>A detailed survey of Landholders within the MLA Boundary and the wider Project area regarding our experiences with weather extremes is required before this EIS can proceed</p> <p>A detailed investigation into specific storm events recorded by BOM including the severe storm warning system is required so that Hazard and Risk assessments can be made.</p> <p>The above must be done before the Proponent can consider the frequency and magnitude of these events together with the risk they pose to management of the project.</p> <p>REFER TO PHOTOS IN ORIGINAL SUBMISSION</p>	<p>The health and safety of staff is of utmost importance to SCC. Assessment of storms and flooding for the climate change assessment has been based on CSIRO predictions for the area and how this may impact staff and the mining operations. The MIA has been sited on land which is above the 1:1000 ARI significantly reducing the potential for impacts associated with flooding unlikely. Further, infrastructure will be built to meet local industry codes which consider severe storms and cyclones, again resulting in a relatively low impact.</p> <p>It should be noted that risk assessment is not solely based on the likelihood of an event occurring but also the consequence. As a result of design features included within the Project the overall risk associated with current and future climatic conditions has been deemed to be low.</p>
42.24	Chapter 6 - Traffic and Transportation	<p>In section 4.3.2 of the ToR, In relation to road impacts, the EIS will include an assessment of impacts on:</p> <ul style="list-style-type: none"> watercourses and overland flows, and their interaction with the current and future road network (note: impacts on water values due to transport infrastructure will be outlined in the transport section of the EIS and cross-referenced to a detailed assessment in 	<p>I believe that the proponent has not addressed the above issue adequately within the EIS.</p>	<p>Flood modelling has been undertaken using 86 years of historic data from Bureau of Meteorology (BoM) weather stations, assessing multiple flooding scenarios. BoM data is used as it provides the most accurate data over a historic period of 80 years or more, with known consistent collection methods allowing for direct comparison between multiple stations. The climate models used provide estimates based on simulated data from baseline</p>

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		the water resources section).		<p>sources which assess the probability of weather affecting the site based on historical weather patterns and predicted changes to the site. Assessments of dust, surface water, local climate, etc were undertaken using modelling approaches which used the above data (and data from Emerald) as inputs and modelled impacts over a range of scenarios. The assessment is considered robust and adequate for the purposes of the EIS assessments.</p> <p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs. The Emergency Response Plan will consider alternative routes and outline procedures should workers become isolated either at the mine site or along the travel route.</p>
42.25	Chapter 6 - Traffic and Transportation	In 06. Traffic and Transport the proponent demonstrates some consultation with CHRC and DTMR regarding the proposed route to access the project site and provide a labelled map in Figure 6 3 to show areas of signage for floodways and school bus stops.	<p>‘When contacted, both DTMR and CHRC advised that they have no records of the flood immunity of any roads in the vicinity of the mine. It is noted that there are signs on the Gregory Highway warning of potential flooding. Also, evidence of pavement damage from flooding or water in the road reserve is apparent on most local roads in the vicinity of the site.</p> <p>Whilst in Appendix A4-04 Traffic and Transport Report 7.7 Flooding The proponent is committed to ensuring that the access route from the Gregory Highway is upgraded to provide suitable flood immunity. The level of flood immunity would be designed to reduce road closures to less than 10 hours a year (average).</p>	<p>As noted above, local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. Flood modelling will be undertaken for the design of all upgrades. This means roads will be sealed and drainage improved. It does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.</p> <p>Stakeholders including CHRC, TMR, the local school bus committee, and representatives from the local community will be consulted regarding the design of upgrades to provide for the safety of all road users.</p>
42.25	Chapter 5 - Land	<p>5.4.3.5 Overburden Exchangeable sodium percentage was measured to assess the erosion potential of the overburden samples. Analysis indicated that the overburden materials were prone to dispersion once excavated and stockpiled.</p> <p>However, it is noted the sample material was predominantly in the form of rock cores and not loose soil. Therefore, despite high exchangeable sodium percentage results, dispersion of this material is considered unlikely provided the material remains as rock.</p>	<p>Given the information and conclusions, is the use of overburden material suitable for the use of construction within the SCL Protection Area? Is it improbable that this material will remain as rock when used in construction or used for internal road connections? What impacts will the uses of such overburden have upon the land within the SCL Protection Area?</p> <p>SUGGESTED OUTCOMES More information is required from the Proponent before approvals for this process can be granted.</p>	<p>Geotechnical assessments to date indicate that the overburden material is suitable for construction of MIA infrastructure.</p> <p>Inconsistencies within chapters of the EIS regarding the footprint of the MIA have been corrected. The MIA will occupy 60ha.</p>

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42.26	Chapter 6 - Traffic and Transportation	6.3.10 Waterway Crossings There are nine formal marked floodways and two bridges along the access route between the Glenorina Road turnoff from the Gregory Highway to the Project site entrance. The load limit for the bridges was not identified by signage. It is anticipated that DTMR will advise design load limits for these bridges during future consultation with SCC regarding required upgrades to the access route. Floodways and bridges are shown on Figure 6-3.	<p>Whilst there is some signage, detailed assessment of the proposed route would have highlighted several areas that are also impacted by overland flow. This issue of flood immunity for the proposed route is of great concern as the proposed accommodation work camp for the project is located close to Emerald. There is no emergency accommodation on site should the project become isolated due to overland flow and storm events. Also of concern is that planning for the road is still in a research and design stage. Isolation is a common event during the wet season and creeks can remain impassable for many days, also the velocity of water crossing the roads can cause major scouring and damage to road surfaces.</p> <p>REFER TO PHOTOS IN ORIGINAL SUBMISSION</p> <p>I am concerned that Bandanna Energy has underestimated the amount of water that crosses the proposed travel route. Whilst some sections are marked as floodways, there are many other sections that are not. The bridge across Minerva is marked as Flooding indicators show depth, but when under water the indicators showing depth cannot be seen. This is not an isolated event. Flood immunity for the length of the proposed route will not be easily achieved.</p> <p>SUGGESTED OUTCOME A detailed survey of the proposed route, including local knowledge, is required before assessments and mitigation plans can be made. A detailed plan regarding the timeframe for upgrading of the proposed access route is required so that the community can safely manage any delays or impacts such works may cause.</p>	<p>As noted above, flood modelling has been undertaken, using 86 years of historic data from Bureau of Meteorology (BoM) weather stations, assessing multiple flooding scenarios. The assessment is considered robust and adequate for the purposes of the EIS assessments.</p> <p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs. The Emergency Response Plan will consider alternative routes and outline procedures should workers become isolated either at the mine site or along the travel route.</p>
42.27	Chapter 6 - Traffic and Transportation	Road conditions	<p>With regards to the order of things, it is essential that any gravel roads to be used for the delivery of equipment for construction phase be managed as a first priority.</p> <p>Locally we do not drive on our sodden roads as it ruins the access for others, and we know that maintenance will only occur generally once a year. It is normal practice to postpone deliveries or pickups.</p> <p>This is not always the case with visiting industries, such as drill rigs and site delivery trucks that need to be in and out on time and have little regard for the road users to come. The local experience with Zero Gen left the community feeling cold towards visiting industries.</p> <p>The surface of the roads is slippery when sodden, heavy vehicles</p>	<p>The timing of local road upgrades is being discussed with CHRC and TMR. Further consultation will occur with the local community regarding the design and timing of road upgrades.</p>



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			<p>can slid off into black soil table drains where they will become stuck. In areas where the gravel has sunk into the underlying soil, heavy vehicles can cause deep ruts that cannot be repaired.</p> <p>REFER TO PHOTOS IN ORIGINAL SUBMISSION</p> <p>SUGGESTED OUTCOME The Proponents must be made to consider the impacts of very heavy vehicles upon gravel roads during wet weather and we suggest that upgrades to the road are commenced before construction begins.</p>	
42.28	Chapter 5 - Land	<p>In 05.Land we read that lighting is expected to include flood lighting around work and administration areas such as the MIA and CHP, vehicle headlights and lighting at water fill points.</p> <p>0.5Land 5.7.8 Lighting Artificial lighting will be designed, installed, operated and maintained in accordance with AS 4282:1997 Control of the obtrusive effects of outdoor lighting, to minimise the amount of light spill associated with the Project. Controls stipulated in this standard include consideration of the location and orientation of lighting as well as the selection and maintenance of luminaries. Any further mitigation (e.g. shielding, further restricting the use of lighting) will be implemented on an as needed basis.</p>	<p>With regards to Lighting the details within the EIS have failed to address the Terms of Reference. The information provided within the EIS is grossly insufficient to properly comment on the impacts that lights will have on the surrounding fauna environment and residents' homes and businesses during any stage of the project.</p> <p>In 03.Description of the Project there is no mention of lights within the Mine Infrastructure Area layout, the heights of light stands, and the direction of the lights or the level of brightness or numbers of lights within the MIA. This information should be available as a detailed map for the proposed MIA is included. This information or design details are not included in 0.3Description of the Project.</p>	<p>There are three main types of lighting to be installed onsite, within the Mine Infrastructure Area (MIA). These are stockpile lighting, street lighting (for internal roads) and gantry/walkway lighting. There will also be specialised lighting of the emergency area, however this will only be used as required. The requirement for lighting is primarily driven by safety to ensure potential hazards onsite are visible.</p> <p>Although it is anticipated that some homesteads will have a direct line of site to the MIA the impacts from lighting are not anticipated to be significant due to distances between MIA and nearest homesteads. Where possible lighting assisted with the MIA will be directed to the area required minimising light spill into the surrounding environment.</p> <p>As stated in Section 5.7.8 (Chapter 5 of the EIS), all lighting will be designed, installed, operated and maintained in accordance with Australian Standard 4282:1997. This standard is intended to control the obtrusive effects of outdoor lighting. Lighting design in accordance with this standard will be undertaken at the detailed design stage, once an Environmental Authority is granted.</p>
42.29	Chapter 5 - Land	<p>Table 5-16 Potential impacts associated with the Project under the heading Construction and operation highlights the 'Potential impacts associated with lighting include disturbance to nocturnal fauna, light spill onto surrounding roads that has the potential to distract passing motorists, disturbance to sleep patterns of nearby residents and impacts to visual amenity caused by the illumination of the night sky'</p> <p>Impact Low Low - Impact is unlikely (<5% chance) to occur in a 12 month period and result in negligible degradation to environmental values. Acceptable with review.</p>	<p>Without a detailed plan it is impossible to conclude that the impacts on residents will be low and is a little contradictory as in Appendix A4-3 Visual Amenity Report 6.4 Sensitive Receptors – Homesteads notes that 42 homesteads were identified within and immediately surrounding the MLA. Some of these homesteads are expected to be able to see the MIA area and direct impacts are expected.</p>	<p>As noted above, all lighting will be designed, installed, operated and maintained in accordance with Australian Standard 4282:1997. This standard is intended to control the obtrusive effects of outdoor lighting. Lighting design in accordance with this standard will be undertaken at the detailed design stage, once an Environmental Authority is granted.</p>

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42.30	Appendix A4-3 Visual Amenity Report	Appendix A4-3 – Visual Amenity Report there is no mention of lights at all or the potential impacts this may have on the existing environment and any sensitive receptors within the area. This report seems to focus solely on the MIA and infrastructure during daylight hours alone.	A Visual Amenity Report must be made to include the night time operation impacts as well. The planning for Lighting both in construction and operation must be produced for review and mitigation planning.	Please refer above under point 42.28 regarding the types of lighting and how it will be managed.
42.30	Chapter 8 - Surface Water	Flood mapping within the EIS does not seem to reflect actual events and high water points in the 2 Mile (Unnamed Creek 2). This is of particular concern considering the impacts that the proposed longwall mine will have upon the 2 Miles ability to drain into the Springsure Creek System.		<p>Impacts to stream flows are only evident within and downstream of the subsidence area. These impacts are quantified within Chapter 8 of the EIS.</p> <p>The design rainfall Intensity-Frequency Duration (IFD) data for various storm events were derived based upon the procedures outlined in Book 2 of Australian Rainfall and Runoff (AR&R) 2001 edition. The purpose of assessing the 2010 (largest event on historical record) event hydrology was to determine whether this historical event was greater than the 1000 year ARI design event as the larger of the two would determine the flood risks and constraints of the site. This was at the request of DEHP (formally DERM). The 1000 year ARI was determined to be the greater of the two.</p> <p>Specific, historical rainfall events were not hydraulically modelled as part of the current study. Design events were simulated ranging from a 2 year average recurrence interval (ARI) up to a 1000 year ARI. These are statistical events and the range was selected to comply with current legislative requirements and to represent a large range of potential storm events. All Bureau of Meteorology rainfall records available at the time of the study, in addition to stream flow gauging were collected.</p> <p>A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously - meaning a worst case scenario.</p>
42.31	Chapter 14 - Social Impacts	14.Social Impacts Final there is no mention of lights at all or the potential impacts this may have on the existing environment and any sensitive receptors within the area.	Without a detailed plan showing placement of lights, direction of lighting, heights of light stands or the illuminated infrastructure it is impossible to properly assess the impacts and suggest any mitigation plans.	As stated in Section 5.7.8 (Chapter 5 of the EIS), lighting will be designed, installed, operated and maintained in accordance with Australian Standard 4282:1997. This standard is intended to control the obtrusive effects of outdoor lighting. Lighting design in accordance with this standard will be undertaken at the detailed design stage, once an Environmental Authority is granted.

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42.32	Chapter 12 - Ecology	12.Ecology under the heading Lighting we read that 'Light from infrastructure and machinery may impact fauna within the study area. It is proposed that the mine will be constructed during daylight hours, which would minimise the amount of light projected at night. Night lighting will mainly be limited to lights required for safety and security. Significant fauna habitat nearest to the MIA is likely to be at a large farm dam at least 300 m south of the MIA, at a distance where light levels would have attenuated to levels where they are unlikely to be causing a significant impact to flora or fauna'.	<p>Without a detailed plan showing placement of the lights, direction of lighting, heights of light stands or the illuminated infrastructure it is impossible to make the statement lighting is unlikely to have a significant impact on flora or fauna.</p> <p>The impacts of lighting on ecology have been limited to the construction phase, and no discussion as to the operational phase, which will have the most extended and long term impact on ecology and nocturnal fauna within the MLA boundary and wider Project area.</p>	The impacts include both construction and operation combined. Table 12-19 has been updated to make this more evident.
42.33	General	Cumulative impacts - haul road	With regards to the proposed haul road and infrastructure corridor that has not been included within the EIS, I wish to note that there will be a cumulative impact for lights on sensitive receptors that is not being addressed in this EIS as the current proposed route for the haul road and infrastructure corridor will also have a significant impact on flora and fauna within the wider Project area.	As noted above, SCC has consulted with the Department of Environment and Heritage Protection (EHP) with regards to the appropriate assessment of the Project and its components, including the separate approval processes for the infrastructure corridor and train load-out facility
42.34	Chapter 9 - Groundwater	<p>Ref ToR Requirements 4.5.1 Describe present and potential users and uses of water in areas potentially affected by the project, including municipal, agricultural, industrial and recreational uses of water.</p> <p>Describe the quality, quantity and significance of groundwater in the project area and any surrounding area potentially affected by the projects activities</p>	The Proponent has failed to adequately answer the above sections from Terms of Reference. There is a general effort, but it is limited in nature and fails to outline the uses potentially affected, quantities and the significance of groundwater in the project area.	<p>Since preparation of the EIS, where we have been able to gain the consent of landholders, additional hydro census, groundwater level, aquifer properties and water quality data has been collected from properties and groundwater infrastructure maps updated. Additional data has been gathered from further drilling operations. Using the additional data collected, both the hydrogeological conceptual model and the numerical model have been updated. A revised groundwater report has been prepared along with a mitigation and monitoring strategy. Please refer to the revised Chapter 9 and Appendices 4-7a and 4-7b which are included on the enclosed USB.</p> <p>Based upon the assessments undertaken, it is unlikely there will be any impact on the quantity or quality of groundwater from existing bores.</p> <p>SCC will implement a groundwater monitoring program to monitor the impacts of mining activity on groundwater and proactively address any potential impacts. In addition, we are seeking to enter into discussions with landholders to enter into compensation agreements regarding impacts as a result of mining, including impacts on groundwater infrastructure.</p>
42.35	Chapter 9 - Groundwater	<p>9.3.9.1 Hydro Census</p> <p>A hydro census was undertaken to improve understanding of the significance and use of groundwater in the Project area. The hydro census involved consultation with landowners and inspection of</p>	I am concerned that the census process was insufficient to fully understand the way in which landholders use water and to adequately calculate the quantities of water used in both households and/or business. Whilst the general information provided demonstrates that groundwater is relied upon by	As noted above, additional data has been collected and assessed since the EIS was prepared. Please refer to the updated Chapter 9 of the final EIS.

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		<p>existing groundwater bores (refer to Table 9-4 below for the findings).</p> <p>Field inspections showed that the majority of bores visited are fitted with pumps and are utilised for water supply. The groundwater is primarily used for domestic, irrigation and stock water supply. Daily abstraction rates are variable with maximums in excess of 1000 litres (L) per day. Six of the locations inspected were equipped with water storage tanks exceeding 1000 L in capacity.</p>	<p>landholders within the regions of Gindie, Arcturus, Orion and Rolleston, this process is insufficient to fully calculate the needs of landholders and what mitigation plans may be needed if make good provisions are to be calculated.</p> <p>Despite living within the MLA boundary and being directly impacted by the proposed mine we were not consulted as to our water needs or usage levels, also no request for access to our bores for water sampling or levels was made.</p> <p>SUGGESTED OUTCOME A complete census of all landholders within the MLA boundary and then landholders within a 20km buffer zone of the MLA boundary is required to identify where we get our water, what purposes we use water for and how much water we use or may need to have access to.</p>	
42.36	Chapter 16 - Economic	<p>Table 16-17 Potential economic impacts as a result of the Project Adverse impacts include:</p> <p>potential impacts on farming operations / land use.</p> <ul style="list-style-type: none"> • Subsidence on cropping land, that may potentially impact drainage/ irrigation; • Subsidence on farm infrastructure (roads, fences, gates, dams and watering points); and • Potentially dust, noise and vibration impacts (refer to Chapters 10 – Air Quality and 11 – Noise and Vibration). <p>In consideration of existing labour and skills shortages, SCC expect the Project will require a high proportion of non-resident workers operating on a FIFO or Drive-in Drive-out (DIDO) arrangement, meaning much of the increased demand for household services (and household spend) will likely be captured outside the Study area.</p> <p>Whilst the Project will provide significant economic benefits, the Springsure Creek Coal Mine will also likely result in adverse impacts within some areas of the regional, state and national economies, including:</p> <p>Impacts on farming activities to properties in the Project area. Farming activities may be impacted through disruptions during construction, subsidence issues, increased on-farm traffic, and potentially through noise, dust and vibrations. Farming activity is expected to be able to continue despite a reduction in available land area and production.</p>	<p>The Proponents have not quantified the above statement as to the amount of loss of land area and production. This seems to be in contrary to the nature of the SCL Protection Conditions. There is no mention of the loss of underground water due to draw down. The EIS models ground water draw down to be between 2-20m within the aquifer tables. Should properties lose their access to current water quantities and qualities beef production at the existing levels will be significantly impacted.</p> <p>There is no discussion regarding the loss of insurance due to subsidence, seepage, altered drainage and vibration. Please note the inclusion of WFI SPDS received March 2013, updating all policies. Farm Property damage policy – Earth Movement and Rain Exclusions amends the current policy with the following: ‘earth movement no matter how caused, including erosion, vibration, subsidence, seepage, saturation, creeping, landslip, mudslide, collapse, shrinkage, settling, expansion or heaving, unless the loss or damage occurs as a direct result of: Earthquake or Water overflowing, leaking or bursting from a fixed pipe or system and the loss occurs within 72hrs of such (Insert Reference E)</p> <p>SUGGESTED OUTCOME The Proponents must be made to complete a full census of all groundwater users within the MLA boundary and the wider Project area, to understand and calculate current usage so the any make good provisions can be calculated.</p> <p>The Proponents must have in place compensation agreements with all households within the MLA Boundary and the wider Project area</p>	<p>Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping was carried out at a scale of 1:50,000. This scale has been recommended by DNRM to provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites. Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008.</p> <p>Results from this study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision. Please refer to Chapter 5 – Land in the final EIS.</p> <p>Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For land deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p> <p>SCC will enter in landholder agreements prior to subsidence occurring these agreements will include compensation related to reduction in yields etc. Ongoing groundwater studies have already</p>



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			<p>should any issues arise where the households insurance has been voided. The Proponents must have adequate public liability to cover this should an issue arise, whether singularly or on a mass scale.</p> <p>The Proponents must be made to quantify and outline exactly how much land area and production will be lost and what impacts this will have upon the ability to continue to operate economic farms. The Proponents must be made to outline how this statement is in line with the current SCL provisions.</p>	<p>been commenced and relevant management plans will be developed and periodically revised as new information becomes available.</p>
42.37	Chapter 4 - Climate	<p>Refer 4.3.3 Floods Refer 4.7.3 Flooding Events The report included in Appendix A4-5 Flood Assessment and Water Management prepared by Engeny Water Management (Engeny) is limited in nature to previous information and studies supplied by Bandanna.</p> <p>It is noted that at 6.3 Conclusion The mine site flooding assessment has confirmed that the existing creek and drainage systems traversing the mine infrastructure area are relatively well defined creeks and gullies and all mine site infrastructure has been located above the 1000 year ARI flood. As such, no flood mitigation measures have been identified for the mine site.</p> <p>It is quite clear that Figure 6-4 illustrating the above has a different layout for the MIA to the resulting EIS.</p> <p>Again limited data inputs have resulted in computer modelling that does not reflect local events. We are concerned that the Proponents have under estimated the water which will collect across the Project area and overestimated the abilities of a drainage channel and levee to control such.</p>	<p>The Proponents have failed to address the Terms of Reference with regards to the likelihood and history of flooding within the Project area. The Terms of Reference must be addressed.</p> <p>The Proponents should prepare flood modelling on actual high fall events. Detailed plans and assessments regarding flood immunity of the MIA and infrastructure can then be assessed. Detailed plans and mitigation control methods can then be developed.</p> <p>Suggested dates would be 5 January 2002 recording 397ml in one night event falling within the Springsure Creek and Orion Creek Catchments (443ml recorded). As the modelling and impacts for water has been calculated across both EPC 891 and EPC 1221 this event would seem to be the most extreme in recent years. Or, 28-30 January 2012 recording over 156ml with two days of heavy steady rain within the Springsure Creek and Orion Creek catchment areas. January 2012 is a more regular event.</p> <p>Images taken from the air 28 January 2012 Showing Springsure Creek in flood and the Dam wall giving way under the weight of Water.</p> <p>REFER TO PHOTOS IN ORIGINAL SUBMISSION</p>	<p>Impacts of flooding and flood modelling approach have been addressed in Chapter 8 - Surface water of the SEIS.</p> <p>The design rainfall Intensity-Frequency Duration (IFD) data for various storm events were derived based upon the procedures outlined in Book 2 of Australian Rainfall and Runoff (AR&R) 2001 edition.</p> <p>The purpose of assessing the 2010 (largest event on historical record) event hydrology was to determine whether this historical event was greater than the 1000 year ARI design event as the larger of the two would determine the flood risks and constraints of the site. This was at the request of DEHP (formally DERM). The 1000 year ARI was determined to be the greater of the two.</p> <p>Specific, historical rainfall events were not hydraulically modelled as part of the current study. Design events were simulated ranging from a 2 year average recurrence interval (ARI) up to a 1000 year ARI. These are statistical events and the range was selected to comply with current legislative requirements and to represent a large range of potential storm events.</p> <p>All Bureau of Meteorology rainfall records available at the time of the study, in addition to stream flow gauging were collected.</p> <p>A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously - meaning a worst case scenario.</p>

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s.73, irrelevant information

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43.01	Chapter 10 – Air Quality	10.2.3.2 Sensitive Community Receptors “Sixteen sensitive receptors (homesteads) were identified, using aerial imagery and on ground assessment, as having potential to be impacted by the Project activities”	We (along with other landholders have been left off the maps when considering sensitive receptor areas within the 16km radius, nor has there been any consultation with us during this planning stage. It is quite odd that we have been left off as properties further on or away from the proposed site have been included.	Relevant tables and figures showing sensitive receptors have been updated.
43.02	Chapter 11 – Noise and Vibration	11.3.2 Sensitive Community Receptors “Sensitive receptors were identified according to schedule 1 of the EP Noise. Based on this, sixteen sensitive receptors (all homesteads) were identified, using aerial imagery and on ground assessment, as having potential to be impacted by the Project”	We (along with other landholders have been left off the maps when considering sensitive receptor areas within the 16km radius, nor has there been any consultation with us during this planning stage. It is quite odd that we have been left off as properties further on or away from the proposed site have been included.	As noted above, relevant tables and figures showing sensitive receptors have been updated.
43.03	Chapter 15 – Health and Safety	15.2.1 – Potentially Affected Population “A number of residential homesteads have been identified as potential sensitive receptors within and immediately surrounding the Project area. The location of the Project in relation to these potential receptors is presented in Table 15-1 and Figure 15-1.”	We (along with other landholders have been left off the maps when considering sensitive receptor areas within the 16km radius, nor has there been any consultation with us during this planning stage. It is quite odd that we have been left off as properties further on or away from the proposed site have been included.	As noted above, relevant tables and figures showing sensitive receptors have been updated.
43.04	Chapter 17 – Hazard and Risk	17.4.1 – Sensitive Community Receptors “Fifteen homesteads occur within 16km of the main mine infrastructure area...”	We (along with other landholders have been left off the maps when considering sensitive receptor areas within the 16km radius, nor has there been any consultation with us during this planning stage. It is quite odd that we have been left off as properties further on or away from the proposed site have been included.	As noted above, relevant tables and figures showing sensitive receptors have been updated.
43.05	Chapter 18 – Draft EM Plan	18.5.2.2 – Sensitive Community Receptors Table 18-10 Sensitive receptor locations within wider Project area 18.5.3.3 – Potential Impacts on the environmental Value Table 18-17 Predicted construction phase noise levels at sensitive receptors Table 18-18 18.5.6.2 – Landscape Character and Visual Amenity Figure 18-19 Homestead locations and features of the landscape	We (along with other landholders have been left off the maps when considering sensitive receptor areas within the 16km radius, nor has there been any consultation with us during this planning stage. It is quite odd that we have been left off as properties further on or away from the proposed site have been included.	As noted above, relevant tables and figures showing sensitive receptors have been updated.
43.06	General	Bandana have resubmitted an EIS for this project. We were under the belief a decision was made that NO mining would be undertaken on SCL land! Land that will help feed our country for generations, land that is becoming more & more scarce due to mining & CSG being allowed into these areas.		There has been no previous EIS submitted for this project. Prior to the EIS being submitted an Initial Advice Statement was prepared. EHP then released Terms of Reference for an EIS to be prepared. The EIS submitted is in response to those Terms of Reference. The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. Within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on

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				<p>subsidised land.</p> <p>SCC is committed to maintaining or improving agricultural productivity on subsidised land and has demonstrated this commitment by investment in the independent Agricultural Co-existence Research Committee which has been established to guide co-existence research aimed at:</p> <ul style="list-style-type: none"> • Maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsidised areas; and • Understanding community expectations and identifying strategies to minimise adverse impacts and maximise the social and economic benefits of the mining investment.
43.07	Chapter 4 - Climate	<p>One of the climate monitors that have been used to collect the given data is located in Springsure 37km away, with the gauge being surrounded by mountains which naturally effect the true readings. The readings given can reach higher speeds during certain months & not just from storms. I noticed that there are no monitoring stations being used to determine wind, dust, noise etc situated north of the project, so how do they know these homesteads will not be affected by our ever-changing weather/seasons?</p>		<p>Bureau of Meteorology (BoM) weather station data has been used in the assessments. BoM data is used as it provides the most accurate data over a historic period of 80 years or more, with known consistent collection methods allowing for direct comparison between multiple stations. The climate models used provide estimates based on simulated data from baseline sources which assess the probability of weather affecting the site based on historical weather patterns and predicted changes to the site. Assessment of dust, surface water, local climate, etc were undertaken using modelling approaches which used the above data (and data from Emerald) as inputs and modelled impacts over a range of scenarios. The assessment is considered robust and adequate for the purposes of the EIS assessments.</p> <p>Notwithstanding the above, some discussions have been held with the Comet Sustainable Farming Association regarding access to climate data collected on a number of properties in the area. These discussions are ongoing.</p>
43.08	Chapter 10 - Air Quality	<p>It also states that only properties on ridgelines or those considered to have a 'potential to view' will be affected by dust drift from the noted project. Like fog dust will settle in the hollow country; as ours is, so will be affected as much as if not more than properties on the ridgelines.</p>		<p>SCC understands the impact that dust can have on agriculture, properties and water. Subsequent to the EIS being completed, additional baseline dust monitoring has been undertaken. Air quality modelling undertaken has concluded that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations. The modelling approach used takes into account terrain and topography variation. As such landscape depressions have been accounted for in impact assessment.</p> <p>Long term air quality monitors will be installed at a number of locations around the site. These monitors will be 'real time'</p>



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				meaning data from the monitors will be communicated to the mine site as it is collected enabling an immediate response to any issues raised.
43.09	Chapter 12 - Ecology	<p>The koala habitats will be adversely affected by the noise, as they don't seem to like living around noise. We have koalas visit our trees regularly, but during the week as we are not often at the house. As soon as we are around making noise they move away! Where are they going to move to if this project goes ahead!</p> <p>The increase in traffic on the roads will also affect them; they are quite often seen moving across roads in the area so will be more susceptible to being run over.</p>	None	In addition to the mitigation measures to reduce the risk of fauna mortality outlined in Section 12.8.3, SCC will be developing policies and procedures for all staff using local roads. This will include awareness of the presence of local fauna and what to do in the event of an incident.
43.10	Chapter 6 - Traffic and Transportation	The increased traffic along this road will also interfere greatly, especially during the construction phase with wide loads & the hold ups they cause. During harvest, our busiest times, it is vital to get our trucks away to the grain depot as quickly as possible. Not only for turnaround time but that the Grain Depot only opens at certain times during harvest & the holdup can mean missing getting loads off & having harvest at a standstill.		The local agricultural community is a key stakeholder in the design of local road upgrades. SCC will engage with representatives with the local community, along with CHRC, the Department of Transport and Main Roads and the local School Bus Committee in developing the design of upgrades. As mentioned at the Gindie Public Information Session localised widening features such as pull-off bays can be incorporated into the design to provide safe area for large vehicles to pass each other.
43.11	Chapter 6 - Traffic and Transportation	The bus times stated in the EIS are incorrect & does not take into account children travelling from home to the bus stop before & after stated times.		<p>SCC understands the road is a shared community asset and will endeavour to work with stakeholders, including landholders to manage any impacts.</p> <p>SCC will work with stakeholders including the Central Highlands Regional Council. Department of Transport and Main Roads, and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
43.12	Chapter 6 - Traffic and Transportation	The EIS also states that there is no bicycle activity on the said roads when in fact the local cycling club ride this same route every Saturday as well as locals cycling for exercise.		The EIS in Section 6.3.6 states "No walking or cycling networks are located within the Project area". This does not mean there is no bicycle activity on the roads. It is acknowledged that local roads, in particular the Glenorina Road, are used by cycling clubs and individuals on a regular basis. As noted above, a Road Use Management Plan will be developed to take into consideration the needs of all road users.

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43.13	Chapter 9 - Groundwater	Chapter 9 – Groundwater 9.6 Mitigation and Management Measures 9.6.1 – Aquifer Cross Contamination 9.6.2 – Control of Pollutants and Contaminants 9.6.3 – Groundwater Dependant Ecosystems 9.6.4 – Drawdown 9.6.5 – Landholder Bores 9.6.6 – Groundwater Monitoring Network	Grave Concerns over Groundwater	<p>The groundwater assessment completed for the project indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>SCC will install long-term groundwater monitors at a number of locations around the site to monitor impacts on the groundwater system as a result of mining activities. Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p> <p>Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater.</p>
43.14	Chapter 18 - Draft EM Plan	18.5.2.9 –Air Monitoring “To alleviate concerns, an ongoing Air Quality Management Plan WILL BE DEVELOPED and implemented”		This is correct. Management Plans are developed once an Environmental Authority has been granted and a Plan of Operations for the mine has been developed. The management plans demonstrate how compliance with conditions of approval are going to be achieved. Those conditions are required before the plans can be finalised.
43.15	Chapter 18 - Draft EM Plan	18.5.4.10 Monitoring “Ongoing groundwater monitoring will be undertaken throughout the life of the various Project phases. The locations to the bores assessed during the hydrocensus are provided in Table 18-32 on page 18-101”	We have 3 bores on our property & feel these should all have monitoring facilities to gauge changes in depth, salinity etc before the project is even go (ahead)??	Additional groundwater data will be collected as part of an on-going assessment. The bores proposed to be monitored as part of the long-term monitoring are still being identified. As noted, we will be seeking to identify bores that provide a representation of the area.
43.16	Chapter 6 - Traffic and Transportation	6.5 - Traffic Impact Assessment 6.5.2 – Construction Phase Changes to AADT “However, as Glenorina road is a site access road, it will experience an AADT increase of approx. 84%, primarily associated with an increase in private vehicle trips (light vehicles) due to staff accessing the site. Heavy goods vehicle traffic on Glenorina road is also predicted to increase by 62% due to materials and machinery being transported to and from site.”	The increased traffic along this road will also interfere greatly, especially during the construction phase with wide loads & the hold ups they cause. During harvest, our busiest times, it is vital to get our trucks away to the grain depot as quickly as possible. Not only for turnaround time but that the Grain Depot only opens at certain times during harvest & the holdup can mean missing getting loads off & having harvest at a standstill. The bus times stated in the EIS are incorrect & does not take into account children travelling from home to the bus stop before & after stated times. The EIS also states that there is no bicycle activity on the said roads when in fact the local cycling club ride this same route every Saturday as well as locals cycling for exercise.	<p>As noted previously, it is acknowledged that the proposed mine access from, the Gregory Highway is also a school bus route. As part of developing a Road Use Management Plan, further discussions will be held with a number of stakeholders including the Central Highlands Regional Council and the school bus committee.</p> <p>Discussions at the Gindie Public Information Session on 25 February 2013 highlighted the issue of moving agricultural equipment between properties, especially during times of harvesting and planting. At that meeting opportunities such as construction of pull-off areas at regular intervals along the road were raised. This option, along with others will be considered during the detailed design of local road upgrades.</p> <p>Ongoing consultation and road user management policies to be developed will ensure mine related traffic is aware of the likely presence of agricultural equipment and other road users, and will be required to comply with specified road user management practices.</p>

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43.17	Chapter 14 – Social Impact	14.7.0 Conclusions “While outlined in the draft SIMP these aim to minimize stress on property owners and demonstrate that agriculture and mining can successfully co-exist and ...”	I find this ridiculous that we have to keep proving why this project should not go ahead. We do not have the time, money or the training to complete this.	<p>The proposed Springsure Creek Coal Mine Project requires an environmental authority from the Department of Environment and Heritage Protection (EHP) along with tenure from the Department of Natural Resources and Mines (DNRM). An environmental assessment is required by the Environmental Protection Act 1994 for an Environmental Authority to be granted. This can be managed through either the submission of an Environmental Management Plan or an Environmental Impact Assessment. For projects managed through an EM Plan it is only once the plan has been submitted, assessed by EHP and a draft Environmental Authority has been prepared that the public is provided with the opportunity to comment on the project.</p> <p>For the Springsure Creek Coal Mine Project a voluntary EIS has been prepared which provides the public with an opportunity to comment on the project at the EIS assessment stage as well as the draft Environmental Authority stage. The timeframes for assessment of an EIS, including the time provided to the public to make comment, are outlined in the Environmental Protection Act 1994. It is the intention of Springsure Creek Coal to continue to engage with directly and potentially affected parties and other stakeholders as the project progresses.</p> <p>The approval process followed is intended to provide the greatest opportunity for the public, including landholders, to provide comment on the proposal and influence the assessment undertaken by State Government.</p> <p>Springsure Creek Coal is committed to continuing to work with directly affected and nearby landholders and other stakeholders as the project develops.</p>
43.18	Chapter 4 - Climate	<p>4.3.1 Storms “The prevalence of severe thunderstorms within the project area is expected to be low because severe storms are generally confined to small localized areas along the coast.”</p> <p>4.3.3 Floods “The potential for flooding within the project area is considered relatively low”</p> <p>Table 4.5 Impacts and mitigation measures associated with Climate “Excessive rainfall – flooding is not expected to restrict access to the project area as local access roads will be upgraded to a higher level of flood immunity than currently exists”</p>		<p>The risk assessment has been based on the frequency and consequence of particular events. While it is acknowledged that severe events occur in the region, their relative frequency is significantly lower than many other regions throughout Queensland. Further clarification has been made in the final EIS relating to the risk rating of severe events.</p> <p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It should be noted this does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.</p>

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43.19	Executive Summary	<p>E3.2 Project Benefits and Opportunities Table E-2 Benefits and Opportunities of the Springsure Creek Project</p> <p>“Develop and demonstrate the proposed (but yet to be defined) Co-existence Performance Standards in Priority Agricultural Areas (PAAs) under the Central Qld Regional Plan (CQRP)</p> <p>Maintain agricultural production while mining under the supervision of Agricultural Co-existence Research Committee.</p> <p>Investment in agricultural businesses and research that will support the State Government’s economic pillars and the 30 year agricultural target of doubling food production across Qld.</p> <p>Maintain and improve cropping land before during and after subsidence associated with the Project ensuring no permanent degradation of food production capacity.”</p>		Comments noted.

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44.1	Chapter 5 - Land SCL Section 5.3.3 – Soils (Page-5-6)	The department notes that 26 sites have been described for the EIS process. These sites are located around the perimeter of the mining tenure. The soil observation sites have not been sited to enable an adequate assessment of soils across the tenure. The soil assessment has not been conducted in accordance with the Land Suitability Assessment Techniques in the Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland (DME, 1995).	Conduct a soil survey across the entire mining tenure, to identify and characterise the soils and their properties in accordance with the requirements detailed within Land Suitability Assessment Techniques in the Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland (DME, 1995).	A detailed soil and land suitability survey have been carried out by GTEs and the results incorporated into the final EIS (refer Chapter 5 Land - Sections 5.3.3 and 5.3.4, and Appendix A4-1). The survey has been carried out in accordance with the requirements detailed within Land Suitability Assessment Techniques in the Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland (DME, 1995), amongst others.
44.2	Chapter 5 - Land Section 5.3.4 – Land Suitability (Page-5-11)	The soil survey has not been conducted to an acceptable standard, therefore, the subsequent land suitability assessment is also not acceptable.	After undertaking the revised soil survey, reassess the land suitability in accordance with the Land Suitability Assessment Techniques in the <i>Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland</i> (DME, 1995). Provide the revised soil survey and reassessment of the land suitability as an amendment to the EIS.	The land suitability has been updated and is presented in Section 5.4.5.
44.3	Chapter 5 - Land SCL Section 5.3.4.4 – Strategic Cropping Land Assessment (Page-5-13)	The strategic cropping land assessment has not been undertaken in accordance with the requirements of the Strategic Cropping Land legislative framework. DNRm officers have met with representatives of Springsure Creek Coal to discuss the requirements of the Strategic Cropping Land Act, 2011.	The Strategic Cropping Land requirements will be assessed parallel to the EIS process.	The EIS presents the results of the updated SCL survey of the site. The EIS also presents conceptual mitigation measures relating to soils and land use which demonstrate that the Project can coexist with the existing environment. As agreed during SCC's meeting with DNRm during the SEIS stage of the project, the Project will be assessed in detail against the SCL Act on submission of an application for a Protection Decision. This application is expected in July 2013 following completion of the EIS process.
44.4	Chapter 18 - EMP Section Topsoil Salvage – Title (Page-18-34)	The depth of topsoil stripping for each soil type present has not been assessed adequately.	Assess the topsoil stripping depths for each soil type following the completion of the soil and land suitability assessment. Provide this information as an amendment to the EIS.	Topsoil stripping depths are presented in Chapter 2 Project Description, section 3.8.5.7 soil salvage (Rehabilitation and Decommissioning). This presents top soil stripping depths for areas to be directly disturbed by the Project i.e. the Mine Infrastructure Area.
44.5	Appendix A4-1 - Section Soil Results and SCL Report Soil Field Summary	Sites SB3, SB5, and SB12 have been incorrectly classified. These soils are not Vertosols.	Reclassify the soils using the Australian Soil Classification Revised Edition (Isbell 1996) and provide this information as an amendment to the EIS.	Soils have been classified according to standard industry guidelines, including Isbell 1996
44.6	Chapter 1 – Introduction Section 1.5.1.2 Queensland Legislation (page 1-37 – 1-38)	The exemption from the provisions of the Vegetation Management Act 1999 (VM Act) for a mining activity, relevant to the project, has been incompletely referenced.	Amend the EIS to correctly reflect the legislative requirements of the VM Act by including the following underlined text: “ <u>The clearing of native vegetation for the project will be exempt from the provisions of the Vegetation Management Act 1999 under Schedule 24 Part 1, Item 1 (6) of the Sustainable Planning Regulation 2009 (SP Regulation) where clearing occurs within a mining lease for a mining activity.</u> ”	The recommended text has been included within the amended EIS within Chapter 1 - Introduction and Chapter 12 - Ecology.

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44.7	Chapter 12 – Ecology 12.6.2.3 Discrepancy in Regional Ecosystem Mapping (page 12-43)	The EIS notes that a Property Map of Assessable Vegetation (PMAV) will be submitted by SCC to amend the current regional ecosystem (RE) mapping to reflect the ground-truthed mapping conducted within the project area.	<p>The proponent to note the following requirements:</p> <p>A detailed PMAV application in which the current RE mapping is being contested must be submitted to DNRM with the following contents:</p> <ul style="list-style-type: none"> • PMAV application form with registered owner/s consent; • Prescribed fee of \$365.60 • Supporting information i.e. field survey data, spatially defined boundaries for proposed vegetation categories etc. <p>Where there is an existing certified 20C PMAV over any of the subject lots, the registered owner/s of the land are required to consent to the making of a replacement PMAV. Please refer to Table 1 [see original submission] for an initial indication of existing certified 20C PMAVs over the lots subject to a prospective PMAV application.</p>	SCC notes this.
44.8	Chapter 1 – Introduction 1.5.1.2 Queensland Legislation (page 1-37 – 1-38)	The EIS notes that components of the project located outside of a mining lease will be subject to separate approvals processes. Clearing that is not exempt under Schedule 24 of the SP Regulation will require an operational work application for the clearing of native vegetation under the VM Act.	<p>The proponent to note the following requirements:</p> <p>For the components of the project located outside of a mining lease, if an operational work application is required then the applicant must provide a Property Vegetation Management Plan ('PVMP') which is consistent with Part 4, section 11 of the Vegetation Management Regulation 2012.</p> <p>If offsets are required as part of the PVMP, a vegetation offset proposal consistent with the relevant Policy for Vegetation Management Offsets (Offset Policy) must also be submitted and include the following information:</p> <ul style="list-style-type: none"> ~how the proposed operational works have been designed and located on the lot/s to avoid and minimise the extent of impact; ~the number of hectares needing to be offset for each performance requirement criteria under the relevant code; ~the availability of offset areas within the landscape (Bioregion) which meet the Offset Policy for each performance requirement. <p>Please note if an Offset Transfer is proposed, within</p>	SCC notes this and commits to a PMAV and the relevant policy for the delivery of offsets.

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			twelve months (12 months) of the date upon which the Development Approval is issued by the State of Queensland, the Applicant must legally secure the offset properties that meet the requirements set out in the relevant Offset Policy.	
44.9	Chapter 1 – Introduction 1.5.1.2 Queensland Legislation (page 1-37 – 1-38)	For the components of the project located outside of a mining lease, there is scope under the VM Act for a proponent to seek a determination by DNRM Vegetation Management as to whether a project can be determined to be a 'Significant Community Project' pursuant to section 10(5) of the VM Act. The status of significant community project triggers an exemption under Schedule 24 Part 2 of the SP regulation for clearing regulated regrowth vegetation on freehold land and leasehold land for agriculture and grazing. The regional vegetation management codes provide for significant community projects in the form of acceptable solutions for performance requirements.	It is advisable, prior to the lodgement of any operational work applications with DNRM, if the proponent deems applicable, confirmation should be sought from DNRM Vegetation Management of the project being determined to be a Significant Community Project. Please note a declaration of the project being a Significant Project under section 26(1)(a) of the SDPWO Act does not automatically make the project an SCP.	Noted
44.10	Chapter 3 - project description Section 3.3.3 – General Construction Methods (Page-3-11)	The EIS does not make reference to the sources of extractive materials, the effect the expected demand for these materials will place on sources within the region, and any proposed measures designed to mitigate this demand. Also, the EIS should take into consideration increased demands placed on the sources of extractive resources due to other projects in the region.	Amend the EIS to provide information that details the approximate quantities and source/s of extractive materials required for the project, the present regional demands on those materials and any mitigating measures to be implemented should this project's demands exceed those supply sources.	Quarry material may be sourced for construction of the MIA and future mine operational requirements using an onsite quarry. The majority of quarry material would be sourced from extraction of the cut and cover or drift, with any further requirements met within the proposed Project area. It is not expected that any off-lease sources of extractive materials would be required at this stage. This information has been added to the EIS (Chapter 2 - section 3.6.7). Detailed design work regarding quantities and sources would be determined following completion of the EIS process, in consultation with advisory agencies.
44.11	Chapters 3 and 5 Sections 3.4.2.1, 3.4.2.2 and 5.4.3 – Regional Geology, Local Geology and Geology and Geomorphology respectively (Pages 3-17 to 3-26 and 5-22 to 5-24)	Insufficient detail given of sub-surface/solid geology of the project site, in particular of the strata and variability of same, overlying the identified coal deposit. While a regional stratigraphic section across the Denison Trough is presented as Figure 3-10 and stratigraphical columns from 4 drill holes are presented as Figure 3-14, no representative cross sections have been provided across/ through the identified deposit.	Refer to Section 4.2.1.3 Geology and geomorphology (page 18) of the Terms of Reference. Review requirements in the Terms of Reference and amend the EIS to submit representative cross sections across the deposit planned for mining, a key map or index plan for same and a brief verbal description of the subsurface rocks along each section line.	Representative geological cross-sections have been added to Section 4.2.1.3
44.12	Chapter 5 - Land Section 5.5 - Subsidence – (Page-5-46 to 5-59)	Subsidence predictions regarding the behaviour of the overlying basalts during subsidence events may be inaccurate based on assumptions made regarding the caving characteristics of the overlying basalt(s). There appears to be no obvious declaration or discussion in the body of the EIS regarding what apparently was a key assumption made by the subsidence consultants Strata	Amend the EIS to comment on and discuss options regarding subsidence predictions and potential inaccuracies in modelling.	Chapter 5 - Land section 5.5.1.2 has been amended to provide for the following limitation: "The modelling which has been undertaken to date represents a worst case scenario and as such provides the basis for determining impacts. All modelling approaches will have some element of inaccuracy, SCC has committed to basing management on worst case predictions, to insure the best outcomes. As such, the actual level of subsidence may be less significant than modelled and result in less severe impacts. Nevertheless the management approaches employed will be

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		Control Technology (SCT) when modelling the behaviour/caving characteristics of the basalt (s) overlying the deposit planned for longwall mining – i.e. as stated in the consultant’s subsidence report presented as Appendix A4-2 of the EIS (SCT Report No SCM 3956 dated July 2012) Section 2.2, page 3 that..... ‘Without a detailed characterisation and numerical modelling of the basalt to suggest that any bridging capabilities exist, a reduction in subsidence due to the basalt will not be made in these predictions.		sufficient to mitigate these impacts and insure agricultural coexistence. These measures will be documented into the specific management plans (e.g. SMP) developed for the Project."
44.13	Chapter 9 - Groundwater Section 9.2.1 – Water Act 2000 (Page - 9-2)	There appears to be some confusion in the discussion above between the sub artesian area and the groundwater management area. The Highlands groundwater management area is the correct terminology [refer original submission for quoted inconsistency]	Amend the EIS to clearly reference and discuss the sections of the legislation relevant to the take of groundwater in the project area.	Chapter 9 - Groundwater has been updated to clarify relevant legislative provisions in the Project area.
44.14	Chapter 9 - Groundwater Section 9.2.1 – Water Act 2000 (Page - 9-2)	This section of the EIS states that an authorisation is required for certain purposes. This should be expanded as there are a number of issues that are not clearly addressed: <ul style="list-style-type: none"> • Section 116 (2) (f) of the plan identifies that groundwater may be taken for stock or domestic purposes without an entitlement. This is important when searching for licences in the area, and understanding where existing groundwater users may be. • Section 116 of the plan also identifies that an entitlement will be required for purposes other than stock or domestic (e.g. mining). • Section 32(4)(C) of the plan indicates that an application to take groundwater for mine dewatering can be accepted. 	Amend the EIS to clearly reference and discuss the sections of the legislation relevant to the take of groundwater in the project area.	Chapter 9 - Groundwater, section 9.2.1 has been amended.
44.15	Chapter 9 - Groundwater Section 9.2.1 – Water Act 2000 (Page - 9-2)	There is mention by the proponent that the plan provides provisions where the taking of water is permitted to satisfy the requirements of an environmental approval issued under the Environmental Protection Act. However this provision in the plan does not relate to groundwater.	Amend the EIS to clearly reference and discuss the sections of the legislation relevant to the take of groundwater in the project area.	Chapter 9 - Groundwater, section 9.2.1 has been amended.
44.16	Chapter 9 - Groundwater Section 9.3.1 – Ecological Values (Page- 9-5)	The EIS includes the following statement in part: <p>Potential Groundwater Dependand Ecosystems (GDEs) in the Project area are restricted to the immediate vicinity of ephemeral creek lines. The depth to groundwater observed during baseline monitoring and in historical records suggests that groundwater contribution to these creek systems is likely to be infrequent and related to periods of high rainfall. The</p>	Amend the EIS to provide data to support the statement that the dependence of vegetation on groundwater in these areas is considered to be minor.	Chapter 9 - Groundwater section 9.4.1 has been updated as follows: "No Groundwater-Dependant Ecosystems (GDEs) have been identified in the Project area based on the GDE Atlas. The areas with high potential to support groundwater dependent vegetation are identified and restricted to the immediate vicinity of ephemeral creek lines. The depth to groundwater observed during baseline monitoring and in historical records suggests that groundwater contribution to the creek systems/base flow is likely to be infrequent and related to periods of high rainfall. Therefore, evapotranspiration by fringing vegetation is

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		<p>dependence of vegetation on groundwater in these areas is therefore considered to be minor and as such the environmental value of groundwater in terms of supporting ecosystems is considered to be low.</p> <p>This statement needs to be supported by fact. No baseline monitoring adjacent to the creek has been provided.</p>		<p>considered to be the major cause of discharge from the regional groundwater system and in this sense the dependence of vegetation on groundwater in the immediate vicinity of ephemeral creek lines is considered potentially high. The degree to which vegetation relies on groundwater would be expected to be variable depending on rainfall and associated fluctuations in the water table elevations. It is possible that at times of prolonged rainfall the health of GDEs may also be adversely impacted by rising water table, at least temporarily. Therefore the environmental value of groundwater in terms of supporting ecosystems is considered medium to high.</p>
44.17	Chapter 9 - Groundwater Section 9.3 – Environmental Values and the existing Environment (Page- 9-5)	There is discussion in this section of a number of purposes that groundwater is currently used for in the area of the proposed mine. However while there is discussion of drinking purposes there is no discussion of domestic purposes, other than drinking.	Amend the EIS to include a discussion of domestic purposes other than drinking as an environmental value of the groundwater resource in the area	EIS amended to state: (Section 9.3.8) "A search of DNRM Water Management System (WMS) database was undertaken to identify land parcels with groundwater extraction licences so that the potential usage of groundwater in the Project area for purposes other than stock and domestic could be understood. The search identified a number of land parcels with licence to take groundwater from the Basalt. These relate to agricultural/irrigation uses as there are no mining and other industrial operations in the immediate Project area."
44.18	Chapter 9 - Groundwater Section 9.3.7 – Geology (Page- 9-7)	The surface geology mapping presented as Figure 9-3 is difficult to relate to the aquifer summary provided in Table 9-2. For instance the Bandanna Formation and Rewan Formation do not appear in the legend of Figure 9-3. If surface geology mapping is not available that matches the formation names in Table 9-2 there should be a clear description in the text as to which formation on Figure 9-3 is the equivalent of the aquifer in Table 9-2.	Amend the EIS to provide a clear connection between the aquifers discussed and the surface geology presented.	Chapter 9 sections 9.3 and 9.5 have been revised to provide an improved description of the conceptual hydrogeological model.
44.19	Chapter 9 - Groundwater Section 9.3.7 – Geology (Page- 9-7)	There are no geological cross sections provided to provide an understanding of the changing geological conditions (at depth) across the project area and the area which will eventually be modelled.	Amend the EIS to provide geological cross sections across the area to be modelled.	Figure 9-9 provides a schematic of the geological cross-sections of the Project area (N-S and E-W). Figures 9-41 and 9-42 present the model grid cross-sections relating to the geology and the different depths of cracking applied to the model scenarios.
44.20	Chapter 9 - Groundwater Section 9.3.8 – Existing Groundwater Users (Page- 9-12)	In this section, and throughout the report, there is reference to the EHP Groundwater Database. The database referred to is presumably the DNRM groundwater database.	Amend the EIS accurately reference sources such as the DNRM groundwater database.	Amended (refer to response above)
44.21	Chapter 9 – Groundwater Table 9-3 – Summary of Sampled Groundwater Bore Use (Page- 9- 13)	In this table irrigation bores are quoted as having an estimated water usage of 500 – 1000 litres per day which equates to only 0.365 megalitres per year which seems far too low. It would be useful if the table identified the aquifer that each bore took water from and it does not. It would also be useful if electrical conductivity was provided for each bore rather than saline or fresh.	Amend the EIS to present accurate and detailed data in this table in relation to estimated water use, water quality and aquifer details.	Amended (refer to response above)

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44.22	Chapter 9 - Groundwater Section 9.3.8 – Existing Groundwater Users (Page- 9-12)	No information on existing licensed groundwater users is presented in this section. In the area of the proposed mine, licences are required to take groundwater for purposes other than stock or domestic. A search of the DNRM licensing database should have been carried out and results presented here. It has not been.	Amend the EIS to present details of all licensed groundwater users in the area of the proposed mine where impacts are possible.	Amended (refer to response above)
44.23	Chapter 9 - Groundwater Section 9.3.9.1 – Hydro Census (Page- 9-14)	The data presented from the census is a valuable part of the EIS and provides an example of water users in the area. However all bores that potentially may be impacted by mining operations should be identified in such a census/ survey.	Amend the EIS to ensure the census identifies the location and details of all bores that may be impacted by mining operations.	Amended (refer to response above). Also refer to amended Figure 9-25.
44.24	Chapter 9 – Groundwater Figure 9-4 – Locations of Sampled Groundwater Bores (Page- 9-15)	This figure shows the locations of bores SPR129, SPR130 and SPR132C. However there are no details of these bores anywhere in the chapter. Are these monitoring bores? What information is available for these bores? Was information from these bores used in the modelling process?	Amend the EIS to present all data from all bores utilised in investigating the project area, including details of SPR129, SPR130 and SPR132C.	All bores are presented on Figure 9-18 Bore Location Map
44.25	Chapter 9 - Groundwater Section 9.3.10 – Groundwater Flow Regime (Page- 9-18)	In this section it is stated: The majority of these wells are screened in the Tertiary Basalt, which forms the main water table aquifer of the Project area. When contoured, the data produces localised troughs and peaks in the interpreted water table surface. The contoured water table indicates groundwater flow to the north east, which is consistent with the local topography. The contours discussed are not presented in the EIS. Contours should be presented for each of the main aquifers to be modelled in the project and model area.	Amend the EIS to present groundwater contours for each of the main aquifers to be modelled.	Figure 9-19 has been added to show groundwater contours and flows
44.26	Chapter 9 - Groundwater Section 9.3.10 – Groundwater Flow Regime (Page- 9-18 – 9-21)	In this section it is stated: Both 13050021 and 13050022 are screened within the basalt; bore 13050022 shows a more rapid response to the onset of the wetter period than the response seen at 13050021. This is likely to be due to recharge of the groundwater within the basalt from the alluvial aquifer proximal to 13050022 and the thicker unsaturated zone at 13050021 acting as a buffer to recharge. The plot presented for these bores is useful in understanding recharge to the Tertiary basalt aquifer and a valuable inclusion in the EIS. It demonstrates some 6 – 7 metres of recharge in the period 2008 to 2012. However the interpretation of	Amend the EIS to revise the interpretation of recharge to the basalt, to support likely recharge via the basalt outcrop in addition to recharge via the alluvial deposits	The EIS has been updated to provide additional analysis of recharge to the basalt as follows: Section 9.3.6.2: "Recharge to the Rewan Formation is likely to be via limited leakage from the Basalt and direct recharge/infiltration where the Basalt is thin and the water table may locally intersect the Rewan Formation to the west, southwest and south of EPC891. Similarly, recharge to the Bandanna Formation is likely to be occurring further to the west, southwest and south of EPC891 where the Rewan Formation is interpreted to pinch out and the Bandanna Formation subcrops beneath the Basalt (Figures 9-8 and 9-9)" Section 9.3.6.3: "Episodic rainfall and runoff events, especially those that cause flooding along the creeks, are likely to supply recharge to the water table via Alluvium (induced flow). Therefore, during these periods the creeks function as a losing stream. This suggests that, while direct recharge to the water table via

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		<p>recharge in the EIS based on this plot appears to be incorrect. The plot quite clearly demonstrates very similar water level response to rainfall in both bores. Hence it demonstrates that recharge is very likely to occur right across the basalt outcrop as well as via the alluvial deposits.</p> <p>The inclusion of groundwater contours in the basalt would assist with this interpretation of the source of recharge to the basalt</p>		<p>rainfall infiltration is likely to occur everywhere across the Project area, the rate of infiltration along the watercourses may be higher."</p>
44.27	Chapter 9 – Groundwater Table 9-6 – Groundwater Elevation Observations (Page- 9-20)	<p>The groundwater elevations in this table indicate that groundwater levels in SPR137 (Rewan Formation) rose by 10.97 metres between 1/9/12 and 8/11/12.</p> <p>There is no discussion of this apparent high level of recharge given the low hydraulic permeability attributed to this aquifer. How does this information affect the modelled connectivity between the basalt and the coal measures?</p>	<p>Amend the EIS to demonstrate analysis of data presented and advise how this supports or does not support conceptualisation of the groundwater system.</p>	<p>Section 9.3.6.2 updated to include: "The northwest to southeast trending Albinia Fault traverses along the east of EPC891. With the exception of a sudden change in the thickness of the Aries 2 seam, no displacement of strata has been identified on either side of this fault (Xenith, 2011). Therefore the fault is considered unlikely to act as a barrier to horizontal flow along the coal seams although the fault surface, if altered to clay, may locally restrict groundwater flow. Other faults in the Project area are interpreted to terminate within the bedrock at some depth below the Bandanna Formation. The regional groundwater flow along the coal seams would be expected to be most sensitive to the lateral continuity, thickness and associated transmissivity of the coal seams."</p>
44.28	Chapter 9 – Groundwater Table 9-6 – Groundwater Elevation Observations (Page- 9-20)	<p>It is evident from this table that the first monitoring bores drilled specifically for investigating the groundwater for this project were not installed until about August 2012. Others like SPR129, SPR130 and SPR132C were possibly drilled after this date as no data is presented for them in the EIS. It is considered that at least 12 months of groundwater level data is required to inform investigations for an EIS such as this.</p> <p>In Section 3.1 of Appendix A4-07A it states that:</p> <p><i>transient calibration near the proposed Springsure Creek coal mine is not possible because there are insufficient historical measurements of water table elevations and piezometric heads in deeper hydrostratigraphic units.</i></p> <p>However it would appear that there has been little attempt to gather this information. Furthermore in section 4.3 of Appendix A4-07A it states that:</p> <p><i>in this project, given the relative paucity of data, formal model calibration has not been possible.</i></p>	<p>The proponent must collect sufficient data on which to base a realistic assessment of potential mining operations on groundwater. At least 12 months monitoring data from a representative network and assessment is required to be incorporated into an amended EIS for the project.</p>	<p>Additional Groundwater monitoring and modelling has been undertaken for the EIS. Further works are proposed following completion of the EIS but ahead of any works commencing on site, including the collection of further baseline data. This approach is considered appropriate.</p>
44.29	Chapter 9 – Groundwater Table 9-11 In situ Water Quality (Page- 9-26)	<p>Water quality data is provided in this table referenced to bore numbers, but there is no indication as to which aquifer these bores were taking water from. This is a common problem with much of the data presented throughout the EIS where the aquifer name is not presented.</p>	<p>Amend Table 9-11 and all other relevant tables in this chapter of the EIS to clearly identify which aquifers the water quality and other presented data relates to.</p>	<p>Tables -9-10 and 9-11 Groundwater Chemistry Results have been amended to include reference bores.</p>

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44.30	Appendix A4-07A Section 3.2.2 Model Layers and Hydrostratigraphic Units (Page- 34)	<p>In this section the EIS states:</p> <p>The model layers and distribution of associated hydrostratigraphic units are based on the grid data provided to NTEC by CDM Smith.</p> <p>There is no background about how this grid data was developed. This needs to be explained.</p>	Amend the EIS to supply supporting information on how the grid data was developed, on which the model layers are based.	Section 9.5.3 sets out the design process for the groundwater model.
44.31	Appendix A4-07A Section 3.2.3 Boundary Conditions (Page- 34)	<p>In this section the EIS states:</p> <p>Recharge is applied to the uppermost active layer along the existing drainage lines, corresponding to the distribution of the Quaternary Alluvium surface geology.</p> <p>However the spot groundwater level elevations presented do not tend to support the concept of higher groundwater level elevations adjacent the creeks. Additionally there is very little data presented in regards to the nature of the alluvium, depth, lithology, permeability. It appears no monitoring of groundwater in the alluvium has occurred in combination with the basalt.</p>	Amend the EIS to supply more detailed information to support the conceptualisation of recharge only occurring through the alluvium.	Please refer to response above relating to recharge.
44.32	Appendix A4-07A Section 3.3 Model Calibration (Page- 35)	<p>In this section the EIS states:</p> <p>The calibration targets for the project area include groundwater level data from 8 monitoring wells gauged in November 2012 and historical depth to water level data from registered wells within the project area. The November 2012 gauging data are used as the primary calibration targets, as they represent a synchronous data set from wells with known construction and top of casing elevation.</p> <p>The only indication within the appendix of which bores constitute the 8 primary calibration targets are the red dots marked on Figure 2-3. There are no bore numbers provided or any indication as to which aquifers are represented by these 8 bores.</p> <p>Furthermore the eight bores appear to be inadequate to represent 4 main aquifers (alluvium, basalt, Rewan Formation and Coal Seams) over the area of the model.</p>	<p>Amend the EIS to supply details of which bores were used as the primary calibration targets, including bore numbers and aquifers represented.</p> <p>The EIS should also be amended to provide detail to ensure the 4 main aquifers are adequately represented over the model area.</p>	Bore hydrographs from six registered bores within the Basalt were used as transient calibration targets as presented in Figure 9-37 of Chapter 9 - Groundwater.
44.33	Appendix A4-07A Section 3.3 Model Calibration (Page- 35)	There is a concern raised in the appendix that when it was attempted to use water levels from private bores the calibration match was poor. This was attributed to reliability of data from private bores and temporal variation over some 60 years. It is unclear why the proponent did not measure	The model requires updating, using data from additional bores, which represent all the aquifers and provide adequate spatial coverage of the model area.	Please refer to responses above.

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44.34	Appendix A4-07A Section 3.3 Model Calibration (Page-35)	<p>groundwater levels in these bores (where accurate logs were available), survey the top of casing levels, and use this information to increase the spatial representation of the area.</p> <p>This is an area where the basalt aquifer in particular is an important source of water for local agricultural activities. Understanding the likely impacts of this mining operation on this aquifer is critical. Furthermore a better understanding of recharge processes in all aquifers and understanding dewatering volumes will also be critical in planning mine operations and investigating any application for a dewatering licence.</p> <p>It is recommended that this model be redeveloped after the collection of significantly more data that better represents the various aquifers that are present and provides better spatial coverage of the model area. Given the uncertainties associated with the modelling, including the effects of goafing on the integrity of the Rewan aquitard, any updated model should then be reviewed by an independent groundwater consultant with demonstrated modelling experience.</p>	<p>The EIS should be amended to reflect a redeveloped groundwater model. This should be based on the collection of significantly more data that better represents the various aquifers that are present; and provides better spatial coverage of the model area. Any updated model should be reviewed by an independent groundwater consultant with demonstrated modelling experience.</p>	<p>The EIS has been amended to reflect a redeveloped groundwater model with the collection of significantly more baseline data, as requested.</p> <p>An independent peer review by a suitably qualified groundwater consultant has been undertaken as part of the supplementary EIS process. Please refer to attached Review provided by Water Resource Australia dated June 2013.</p>
44.35	Chapter 18 – Draft EMP Plan Section 18.5.4.9 Control Strategies (Page- 18-89)	<p>There should be a clearer commitment to mitigate the effects to landholders bores where available pumping supplies have been impacted as a result of mining operations. The commitment should be to enter into agreements with the landholders to replace diminished groundwater with the same quantity and quality or better.</p>	<p>The proponent must commit to enter into agreements, prior to mining commencing, with those landowners predicted to be impacted and with others as additional information indicating impacts or potential impacts, becomes available. There must also be a commitment to replace diminished groundwater with the same quantity and quality or better. The EIS should also be amended to reflect these requirements.</p>	<p>SCC commits to entering into agreements prior to mining with affected landholders and others as required to replace any diminished groundwater supplies to the same quality and quantity or better. This commitment is included throughout the amended EIS as appropriate.</p>
44.36	Chapter 18 – Draft EMP Plan, Section 18.5.4.12 Proposed Environmental Authority Conditions: Schedule D – Water, Condition D34 (Page- 18-100)	<p>Within this proposed condition there is a commitment to develop and implement a groundwater monitoring program. However the commitment currently lacks detail.</p> <p>There should be a commitment to monitor groundwater levels and quality. There should be mention of all aquifers proposed to be monitored. There should be an indication of frequency of measurement. Monitoring of groundwater levels in and around the mining operations should be monitored by datalogger with at least one reading every 12 hours.</p> <p>There must be a commitment to construct all monitoring bores in accordance with Minimum Construction Requirements for Water Bores in Australia.</p>	<p>The proponent must provide a commitment for the development of a groundwater monitoring program and commit to submit this program to the administering authority for approval before the commencement of dewatering.</p> <p>The program should include details of the aquifers to be monitored, details of the measurement of water levels, and sampling for water quality monitoring, and bores to be measured/ sampled and frequencies.</p> <p>There must be a commitment to construct all monitoring bores in accordance with Minimum Construction Requirements for Water Bores in Australia. The EIS should be amended to reflect these requirements.</p>	<p>Groundwater management commitments are presented in Chapter 18 section 18.5.4 water resources. This section has been updated to mirror the additional understanding of groundwater resources in the Project area gathered during the SEIS. The commitments in this document will underpin the Project's activities as permitted under any Environmental Authority. Indeed, the Project's Environmental Authority application will be assessed based on the contents of this EM Plan.</p>

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44.37	Chapters 9 and 18 – Groundwater & EMP	There appears to be no commitment in the Draft EMP or in Chapter 9 Groundwater report to update/ recalibrate groundwater model on a regular basis as more data becomes available.	The proponent must make a clear commitment to update/ recalibrate the groundwater model on a regular basis as more data becomes available. The commitment needs to be in the groundwater report and the EMP.	These commitments are already within the EM Plan and Groundwater Chapters. SCC commits to these modelling requirements as data becomes available.
44.38	Chapter 18 - Draft EM Plan 18.5.4.6, p18-84 Groundwater	Inadequate listing of potential impacts on the environmental values of the groundwater. The section under the heading Aquifer Cross Contamination does not discuss long- term cross contamination of aquifers from subsidence.	Amend the EIS to provide a revised evaluation of potential impacts on the environmental values of the groundwater. This should include a statement to the effect that there is potential for permanent cross contamination of aquifers due to subsidence; and that the subsidence may cause: permanent change in the hydrogeological character of aquifers; change in the interactions between surface water and groundwater; change in the interactions between different aquifers (e.g. the alluvium and the basalt, p20 of groundwater report, Appendix A4-07a) and damage to bores.	This has been amended and mirrors the update to Chapter 9 - Groundwater.
44.39	Chapter 18 - Draft EM Plan 18.5.4.6, (p18-84) - Groundwater	Inadequate evaluation of potential impacts on the environmental values of the groundwater. The section under the heading Environmental values including Groundwater Dependent Ecosystems (GDE) states that a maximum drawdown of 0.5m is not expected to significantly impact riparian vegetation. No evidence is given that a drawdown of 0.5m is an insignificant impact on GDEs.	Amend the EIS to provide evidence for the statement that a drawdown of 0.5m is an insignificant impact on GDEs, or revise the assessment to indicate the impacts. Additionally, provide evidence that the change in the availability of water is statistically insignificant	This analysis has been amended and mirrors the update to Chapter 9 - Groundwater, as follows: <i>"Although current EHP mapping indicates no GDEs or springs occur within approximately 100 km of the Project area, there is a potential for these to occur along Springsure and Station Creek. The predicted maximum drawdown along these creek systems is approximately 0.5 m. Potential GDEs include deep rooted plants that are drought tolerant and may adjust to declines in groundwater levels without adverse health effects, however in periods of low rainfall, the dependence of GDEs on groundwater is higher.</i> <i>The predicted reduction in the evapotranspiration rate is likely to be comparable to the systems natural variability, although this is based on a conservative assumption that the fractures above the goaf extends into the Basalt by several 10s of metres in parts of the mine area and that the vertical hydraulic conductivities of key aquitards are an order of magnitude greater than the current best estimates. A model scenario based on local experience indicates that there will be no drawdown related impacts to GDEs as fractures are not assumed to extend into the Basalt.</i> <i>On this basis, the risk to GDEs is estimated to be medium assuming that some of the deep rooted plants in the riparian zone have high dependence on groundwater particularly during low rainfall periods. It is therefore expected that there will not be any significant impacts to riparian vegetation."</i>
44.40	Chapter 18 - EMP Section 18.5.9.2 - Changes to	Inadequate evaluation of potential impacts on the environmental values of the groundwater.	Amend the EMP to provide a revised evaluation of potential impacts on environmental values. This should remove the statement about temporary	Please refer to response above.

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	Groundwater Table (p18-176)	The Draft EM Plan states that impacts on deep-rooting species will be temporary, but impacts from subsidence will be permanent.	impacts on deep-rooting species and replace with: “Deep-rooting species may have to adapt to a permanently altered water regime and the loss of individuals may occur.” Also, provide evidence to support the statement: “Water drawdown resulting from the Project is not expected to significantly impact this TEC.”	
44.41	Chapter 18 – EMP Section 18.5.9.5 Control Strategies - subsidence management, (p18-181)	The EIS contains an incomplete list of potential impacts from subsidence. The statement: “Subsidence may result in impacts to surface topography, water flows, stream flows and ultimately impact vegetation communities within the study area” does not include groundwater processes.	Amend the EIS to include “groundwater processes” in the statement after the heading	Section 18.5.9.5 has been updated to include subsidence impacts on groundwater
44.42	Chapter 3 - Project Description Section 3.8.5.6 – Water Storage and Management Dams (Page 3-63)	Dams not required for use by the post-mine land owner or for nature conservation are required to be decommissioned	The capture of overland flow post mine must be in accordance with the Water Resource (Fitzroy Basin) Plan 2011.	SCC would not be responsible for the capture of overland flows following rehabilitation and relinquishment of the tenure. Furthermore, SCC will not capture any overland flow during operations except within the MIA. The design of dams follows the requirements of the Plan. No change made to EIS.
44.43	Chapter 8 - Surface Water Section 8.2.2 – Water Act 2000 (Page 8-3)	The EIS states “Authorisation under the Water Act for the taking of water from overland flow, a watercourse, lake or spring comes via a water entitlement and a development application.” The requirement for development permits under the Sustainable Planning Act 2009 is no longer required if the proposed water related operational works are located on a mining lease and are considered to be an authorised activity under the Minerals Resources Act 1989.	It is recommended that the proponent updates the text within this section of the EIS accordingly.	This section has been updated accordingly.
44.44	Chapter 8 - Surface Water Section 8.2.2 – Water Act 2000 (Page 8-3)	The EIS refers to the outdated guideline ‘Activities in a watercourse, lake or spring associated with mining operations’ (DERM 2010), A newer version of the DNRM Guideline - Activities in a watercourse, lake or spring associated with a resource activity or mining operations (version 3) was released in 2012 and is accessible from the website at: http://www.derm.qld.gov.au/about/policy/documents/3435/attachments/guideline-3435-act-wls-assoc-mining-v3-20120712.pdf	The proponent to note that a new version of the guideline is available.	Noted and updated reference to guidelines.

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44.45	Chapter 8 - Surface Water Section 8.3.2 – Existing Waterways and Local Catchments (Page 8- 5)	Six waterways directly traverse the project area, which are yet to be determined under the Water Act 2000.	It is recommended that the proponent ensures all features within the proposed project area have been determined by an authorised officer under the Water Act 2000 to identify relevant regulatory provisions for each of the features.	SCC has sought determination from DNRM regarding the status of waterways within the Project area. Un-named creeks 1 and 4 have been assessed as part of this process and are not considered watercourses under the Water Act.
44.46	Volume 8 - Surface Water Section 8.3.5 – Existing Water Users (Page 8-12)	<p>The EIS states that there are no existing water rights for properties within the designated Project area or Springsure Creek.</p> <p>However, properties are able to undertake water harvesting as outlined in section 3.6.3.2 of the EIS.</p> <p>The proponent should clarify if water harvesting as described in the EIS is the take of water from Springsure Creek or the capture of overland flow from the Springsure Creek catchment.</p>	Amend the EIS to clarify if water harvesting as described in the EIS is the take of water from Springsure Creek or the capture of overland flow from the Springsure Creek catchment.	Section 3.6.3.2 has been removed now that water supply for the Project has been secured i.e. on site water harvesting will not provide water for mine operations other than that collected within the MIA as mine affected water.
44.47	Volume 8 - Surface Water Section 8.5.5 – Erosion and Sedimentation (Page 8-39)	<p>The EIS states “The Australian Coal Industry Research Program (ACARP) has established design guidelines for stable channels which the EHP has adopted as part of the Watercourse Diversions-Central Queensland Mining Industry, Version 5 guideline.”</p> <p>The guideline relates to the diversion of watercourses which is regulated under the Water Act 2000. The department responsible for the guideline including the regulation of watercourse diversion is Department of Natural Resources and Mines, not EHP.</p>	Amend the EIS to note that the guideline referenced is a regional guideline relating to watercourse diversions with the responsible department being the Department of Natural Resources and Mines.	Amended.
44.48	Appendix A4-6 Mine Subsidence Surface Water Report Section 7.3 – Post-Subsidence Stream Flows (Page-35)	The EIS states that repairs to Denlo Park farm dams will be required after mining occurs under these areas.	Any repairs to overland flow storages will need to be carried out in accordance with the Water Resource (Fitzroy Basin) Plan 2011. The EMP needs to be modified to require the proponent to liaise with DNRM when these repairs are proposed.	Section 9.7.4 updated to state: "Reinstatement and repair of dam walls and overland flows may be necessary to make dams safe to operate following subsidence. Any repairs to overland flow storages (dams) will be carried out in accordance with the Water Resource (Fitzroy Basin) Plan 2011. Furthermore, repairs to dams and associated inflows resulting from subsidence will not lead to the dams increasing the take of overland flow "
44.49	Appendix A4-6 Mine Subsidence Surface Water Report Section 7.3 – Post-Subsidence Stream Flows (Page-35)	The capture of overland flow post mine must be in accordance with the Water Resource (Fitzroy Basin) Plan 2011. Accordingly, the subsidence of existing storages that take overland flow, cannot facilitate the take of a larger volume of water.	Amend the EIS to note that the subsidence of existing storages that capture overland flow should not lead to the storages increasing the take of overland flow. The proponent should liaise with DNRM regarding any requirements for the reconfiguration of the storages. The proponent may need to demonstrate how this will be achieved.	Refer to response above.

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44.50	Appendix A4-6 Mine Subsidence Surface Water Report Section 8 – Subsidence Impact Mitigation Strategies (Page-39)	A Subsidence Management Plan is required to address the impacts of subsidence on watercourses and surrounding landscapes. The Department of Natural Resources and Mines has developed a draft guideline titled “Watercourse Subsidence – Central Queensland Mining Industry” that contains the minimum requirements for developing a Subsidence Management Plan.	Amend the EIS to refer to the draft Departmental guideline titled “Watercourse Subsidence – Central Queensland Mining Industry” when developing the Subsidence Management Plans (SMP). The SMP will need to include the requirements for monitoring, assessment, reporting, mitigation measures and rehabilitation.	Amended to include this guideline.
44.51	Appendix A4 -13 - Aquatic Ecology report Chapter 12 1-2.6.8.1 Chapter 18 - Draft EM Plan, stygofauna, p18-172, and Appendix A4-07a, Groundwater Report	<p>Inadequate sampling for stygofauna has been undertaken.</p> <p>The Aquatic Ecology report states that there are no alluvial aquifers in the study area. However, the Groundwater Report states that Quaternary alluvium is present within the project area.</p> <p>The section on stygofauna in the EM plan states that alluvium is not present, however Quaternary Alluvium is included on Table 18-21 and p18-81.</p> <p>The proponent has failed to sample adequately for stygofauna by omitting to sample the alluvium.</p>	<p>Amend the EIS to include Quaternary alluvium in Table 12-18 consistent with the Groundwater Report (Table 9-2, text on p9-11, and text on p 9-44).</p> <p>Sample the Quaternary alluvium for stygofauna and ensure that the reporting of alluvium is consistent throughout all documents.</p> <p>If a monitoring bore is to be installed in the Quaternary alluvium of Springsure Creek as recommended on p 9-44, then it should be sampled for stygofauna following waiting period recommended in the Western Australian Environmental Protection Authority document Guidance for the Assessment of Environmental Factors – Consideration of Subterranean Fauna in Groundwater and Caves during Environmental Impact Assessment in Western Australia (2003).</p>	The stygofauna section of Chapter 12 Ecology has been revised. The bores were not purged before sampling. Under the WA guidelines a pilot study of between 6-10 bore samples is considered sufficient. Resampling is recommended when stygofauna is found during the pilot study. None were found. Additional surveys have also been undertaken during SEIS and data are included within update. No stygofauna recorded. New bores were not drilled to sample alluvial aquifers.
44.52	Chapter 12 - Aquatic Ecology report s12.5.2.4 - Stygofauna Assessment	<p>Inadequate sampling for stygofauna has been undertaken.</p> <p>This section of the report states that the sampled bores were purged (300L) prior to pumping to ensure that the aquifer was sampled rather than the bore contents. The Western Australian Environmental Protection Authority document Guidance for the Assessment of Environmental Factors – Consideration of Subterranean Fauna in Groundwater and Caves during Environmental Impact Assessment in Western Australia (2003) addresses this matter in s3.7.1.1, Validity of sampling bores, and concludes that bores contain all species found in the aquifer. There is therefore no need to purge the bore. Purging the bore means that the method is inconsistent with methods used to sample stygofauna in other EISs, and makes it difficult to compare results.</p>	Repeat sampling of the Quaternary alluvium is required to satisfy the comment above, and should be carried out without purging the bore first. Amend the EIS to provide the results of the sampling for comparison.	Refer to response above.

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44.53	Chapter 12 - Aquatic Ecology report 12.6.8.1 - Desktop assessment	<p>An incorrect statement has been made in the EIS regarding the absence of stygofauna from coal seams.</p> <p>The technical report for the Adani Carmichael Coal Mine and Rail Project (GHD November 2012, available on the internet) reports the presence of eight species of stygofauna in coal seam aquifers.</p> <p>Also the reference to Hancock and Boulton (2008) is misleading. It says that all the known specimens collected in Qld were from alluvial or sedimentary aquifers, and although this is true, Hancock and Boulton did not sample other aquifer types.</p>	Amend the EIS to provide a revised description of stygofauna taking these reports correctly into account.	Chapter 12 Section 12.5.8.1 updated as follows: "The stygofauna community of coal seam aquifers is poorly known with little published data. GHD (2012) reports a total of eight taxa collected during sampling from coal seam aquifers across Queensland including: two species of Copepoda, one Amphipoda, four species of water mites and one Notobathynella species (Bathynellacea). Two of these (one each of Amphipoda and Copepoda) were collected from a site in the northern Bowen Basin (GHD 2012)."

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s.73 irrelevant info

Submission number	Topic	Comment	Recommendation / Suggestion	Response
45.01	General	The main text of the Springsure Creek Project EIS does not address all relevant matters concerning environmental values, the impacts on those values and particularly the proposed mitigation measures for impacts on those values. Some matters are raised for the first time in the appendices and the EM plan.		It is our view that the EIS satisfactorily addresses all issues as required by the Terms of Reference.
45.02	General	The ToR specifically mentions that impacts and cumulative impacts on agricultural land must be quantitatively assessed. No quantitative data about impacts on agricultural production, either in terms of crop yield or value of production are included. Impacts on crop yield and value of production are not considered for the area to be removed from agricultural production for the life of the mine where the surface mining infrastructure is to be located.		<p>SCC is committed to the co-existence of mining and agriculture and maintaining or improving agricultural yields. We are seeking conditions of approval to include the requirement to prove co-existence while maintaining or improving agricultural productivity.</p> <p>Our commitment to co-existence is also demonstrated through the funding of an independent Agricultural Co-existence Research Committee established to guide co-existence research. This research is aimed at maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas (among other things). The Committee will also define co-existence with regard to this project to enable a baseline to be established prior to mining taking place. This will enable co-existence to be measured once mining starts and compliance with conditions of approval relating to co-existence to be monitored.</p> <p>With longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), it will enable research to be applied and mining methods and agricultural practices to be refined to minimise impacts on agriculture and maximise agricultural yields. The benefits of this initial period of mining can then inform discussions with other landholders prior to mining activities taking place on other properties to optimise agricultural yields.</p>
45.03	General	Interestingly the EIS estimates the MIA at 40 hectares in some instances (Appendix A4-17b Summary of Impacts, Mitigation Measures and Post-Mitigation Impact) and at 60 hectares, even in the same document (Appendix A4-17b Summary of impacts, Mitigation Measures and Post-Mitigation Impact).		The proposed Mine Infrastructure Area (MIA) is 60 ha in size. Reference to 40 ha is a typographical error which has been corrected.
45.04	Chapter 5 - Land	Impacts on crop yield and value of production are not considered for areas that will be removed from agricultural production during subsidence periods (up to 2 years – 5.5.1.1).		<p>Longwall mining is known for being able to predict both active and residual subsidence, with the majority of active subsidence occurring within a few days or weeks and residual subsidence occurring both concurrently with active subsidence and possibly continuing for up to two years (depending on the rate of mining).</p> <p>It is expected that farming operations can continue on the surface in areas where there is no direct mining underneath. Where mining is taking place and the active subsidence is occurring farming operations are likely to cease in those areas and be able to recommence after the initial subsidence has occurred. It is acknowledged that farming practices in areas where subsidence has occurred may be modified, and these will be discussed with landholders on a paddock by paddock and longwall by longwall basis prior to mining activity taking place. The benefits of the co-existence research and</p>

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45.05	Chapter 8 - Surface Water	Impacts on crop yield and value of production are not considered for areas that will suffer from erosion and ponding impacts (8.5.4, 8.5.5).		<p>mining on Den-Lo Park will assist in developing management strategies to maintain agricultural productivity on subsided land.</p> <p>SCC are committed to mining and agricultural coexistence. Mitigation measures will insure that ponding and surface water flows do not detrimentally impact crop production. Subsidence management plans and an agricultural management plan will be developed prior to construction of the Project.</p> <p>A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously. Further staged assessment will be undertaken as the project progresses to anywise in finer detail the effects of any likely changes to overland flow and ponding regimes and subsequent effects on individual properties. This will include likely effects on current soil management (including sediment and erosion controls), irrigation and general agricultural practises. Further liaison/consultation will be undertaken with individual affected property owners to further understand and mitigate likely effects on current agricultural practises.</p>
45.06	General	I cannot read anywhere in the EIS that states the environmental protection objectives for land, nor any qualitative or quantitative descriptions of these objectives or how they will be achieved.		Please refer to Chapter 18 - EMP Plan for environmental protection objectives for land including Section 18.3.13 for rehabilitation and decommissioning objectives and Section 18.5.7.6 for commitments relating to managing impacts on SCL, pollution, topsoil management and subsidence.
45.07	General	The EIS claims (without any data or evidence to support the statement) that increased agricultural production will be a beneficial impact of the project and states "There is a perception that agricultural production will fall as a result of mine construction, but mine infrastructure will be located on 40 hectares, and yields are expected to increase due to expanded irrigation and improved farming practices." (Appendix A4-17b Summary of impacts, Mitigation Measures and Post-Mitigation Impact). And for mine operation, "There is a perception that agricultural production will fall as a result of mine operation, but mine infrastructure will be located on 60 hectares, and yields are expected to increase due to expanded irrigation and improved farming practices." (Appendix A4-17b Summary of impacts, Mitigation Measures and Post-Mitigation Impact).		The proposed Mine Infrastructure Area (MIA) is 60 ha in size. Reference to 40 ha is a typographical error which has been corrected.
45.08	General	The [project benefits] are...contradicted in Appendix A4-16 Economic Report under the heading "Adverse Impacts", which states, "The Project Area extends over all or part of five properties that support dryland and irrigated cropping (Including sorghum, wheat, chickpeas, mungbeans, corn, sunflowers and cotton) and some grazing of beef cattle. Farming activities may be impacted through disruptions during construction, subsidence issues, increased on-farm		This quote is taken from Appendix A4-16 Economics Report section 5.14 Summary of Impacts, table 5-19 Summary of Key Benefits and Costs of the SCC Mine Project. These costs are presented in the absence of mitigation measures. Mitigation is then proposed in the following section (section 6 Mitigation Measures). SCC is confident that through the implementation of the Springsure Creek Agricultural Plan, Social Impact Management Plan and Environmental Management Plan, economic costs on farming activities can be avoided.

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		traffic, and potentially through noise, dust and vibrations. Farming activity is expected to be able to continue on these properties, though available land area and production is likely to be reduced		
45.09	General	The EIS does not describe how irrigation will be expanded to increase agricultural productivity. The proponent has also not explained where the additional water is to come from for the expanded irrigation, given that groundwater will be significantly impacted from the proposed mining activities, and surface water flows will be altered due to subsidence.		<p>Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater. The potential for impacts to occur and the magnitude of the impact will depend upon a number of factors, and in the case of impacts on groundwater bores affecting water quality and quantity, the potential for impacts is low. Assessments undertaken indicate there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>Bandanna Energy has purchased an allocation of 1,000 mega litres of water per year from Sunwater's Nogoia-McKenzie Water Supply Scheme for use at the mine site. Water from this scheme will be piped to the site. The purchase will ensure the mine is self-sufficient and does not draw upon existing local water supplies and or aquifers.</p>
45.10	Chapter 5 - Land	The EIS does not include quantitative data and maps of the pre and post mining land use capability class and land use suitability class, so the proponent and any other reader cannot determine whether agricultural production can be increased on the basis that there are lands that can be irrigated for cropping production, that currently are not. This lack of detail does not conform with the ToR, which states in 4.2.1.6 Land suitabilities that maps are to be provided.		<p>Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been completed for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping has been carried out at a scale of 1:50,000 as recommended by DNRM to provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites. Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008.</p> <p>Results from this study will be used to determine the SCL suitability of the area and supplied to DNRM to inform the Project SCL Protection decision. On completion these results will be used to further develop management programs and plans for the Project. Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For lands which are deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p>
45.11	Chapter 5 - Land	This section [of TOR] also directs the proponent to describe the existing agricultural land use including cropping, crop rotations, zero-till and controlled traffic farming practices. An analysis of the loss of agricultural productivity resulting from the mine development should also be provided. It has not.		Please refer to Section 5.4.7 which describes agricultural practices currently being undertaken in the project area. The impact assessment is included in 5.7.2. We are confident the impacts on agricultural productivity as a result of underground mining can be successfully managed.
45.12	General	The EIS also does not describe how farming practices will be improved. This would require an assessment of the current farming practices (a ToR requirement, see above) and a measure of their success, as well as the provision of details regarding the modifications to farming techniques that will be undertaken (and by whom, and at whose cost) to increase		Management for subsidence could include a number of measures such as pre-emptive measures installed ahead of subsidence or rehabilitative measures installed post-mining which taken together, will avoid any long term significant impacts. Impacts associated with subsidence will be addressed on a property by property and longwall panel, by longwall panel basis. It should be noted that predicted subsidence levels are worst case scenarios and as such actual impacts may be significantly less. Given the rate at which subsidence will occur it is fully expected that subsidence can be appropriately

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		agricultural production and an analysis of the relative success of these modified farming techniques. As an agriculturalist, the proponent's glib comments that increased agricultural production is a beneficial impact of the project, the lack of supporting evidence to the claim, and lack of any detail to achieve this supposed increase in production, is insulting.		<p>managed. The exact scope of management measures will be developed as the Project progresses in consultation with statutory agencies and landholders.</p> <p>It is premature to develop these strategies until such time we have further information gained from research and early years of mining on Den-Lo Park. With mining not scheduled to take place on some properties until year 25 of operation, any plan needs to take account of farming practices at the time to allow for advancements in farming practices and changes in land management practices.</p>
45.13	Chapter 16 - Economic	The Economic Report (Appendix A4-16) does identify the disruption to existing agricultural production as a potential negative impact, and does state an objective to minimise disruption of agricultural practices. Note the objective is to minimise disruption of agricultural practices, not minimise loss of agricultural production, which is a perceived beneficial impact of the project.		<p>One of the reasons the longwall underground mining method is proposed for this mine is that it is known for being able to predict both active and residual subsidence, with the majority of active subsidence occurring within a few days or weeks and residual subsidence occurring both concurrently with active subsidence and possibly continuing for up to two years (depending on the rate of mining).</p> <p>It is expected that farming operations can continue on the surface in areas where there is no direct mining underneath. Where mining is taking place and the active subsidence is occurring farming operations are likely to cease in those areas and be able to recommence after the initial subsidence has occurred. It is acknowledged that farming practices in areas where subsidence has occurred may be modified, and these will be discussed with landholders on a paddock by paddock and longwall by longwall basis prior to mining activity taking place</p> <p>The mitigation strategies included in Appendix A4-16 are recommended by the technical specialists who prepared the Economic Report. These recommended strategies, along with all other technical assessments and project information, have been considered by SCC and further refined.</p>
45.14	Chapter 16 - Economics	For monitoring and management of the mitigation strategies, the reader is referred to the Springsure Creek Agricultural Plan outlined in the draft SIMP (Chapter 20).		The incorrect reference has been amended.
45.15	Chapter 5 - Land	Chapter 5.7.6 Erosion and Stability deals only with erosion relating to MIA's. Table 5-17 describes Erosion Control Measures for erosion relating to vegetation and topsoil clearing and not to erosion relating to subsidence. This does not conform with the ToR as it clearly states that the EIS must include a report that includes an assessment of likely erosion and stability effects for all disturbed areas including areas of subsidence.		<p>Please refer to Chapter 1 - Introduction in the final EIS which provides a graphical representation of the environmental management process and at what point management plans are developed. Detailed management plans are not prepared until later project stages.</p> <p>An Erosion Sediment Control Plan will be developed for the project and implemented prior to construction. Specific plans will be developed for individual longwall panels and incorporated into the Subsidence management plans for each longwall panel.</p>
45.16	Chapter 5 - Land	Possible erosion rates are not given, no management techniques are described, erosion potential for each soil type is not listed, there is no erosion monitoring program detailed, no rehabilitation measures identified, no methods to prevent or control erosion specified, and no Erosion and Sediment Control Plan in the draft EM Plan. Obviously, this does not comply with the ToR.		<p>Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been completed for the MLA. Chapter 5 - Land in the final EIS has been updated with reference to this report. This includes further information regarding soil types, erosion rates, etc.</p> <p>An Erosion Sediment Control Plan will be developed for the project and implemented prior to construction. Specific plans will be developed for individual longwall panels and incorporated into the Subsidence management plans for each longwall panel.</p>
45.17	Chapter 5 - Land	Whilst the EIS does provide an expert report which predicts the extent of surface subsidence, there is no information		As noted above, subsidence and the impacts associated with subsidence will be managed through a subsidence management plan which will be fully implemented and developed prior to construction.

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		provided in the EIS on short and long-term impacts of subsidence on agriculture. Vegetation changes resulting from ponding are not discussed. No mitigation strategies are provided whatsoever, let alone detailed mitigation strategies. And as the Key Commitments in Chapter 20 indicate, there are as yet no subsidence monitoring and management programs and no subsidence rehabilitation plan. Again, this EIS does not conform to the ToR.		The impacts to vegetation associated with the Project are considered manageable as rehabilitation activities will be in place solely to provide a net benefit to the local flora and fauna communities and environment. In the event of vegetation dieback or loss however, rehabilitation programs will provide a means to reinstate the vegetation community impacted, offsets will also be considered. Rehabilitation of vegetation communities and offsets are further discussed in Chapter 12 - Ecology.
45.18	General	If the objective of this EIS is to ensure that ALL impacts are examined and mitigated, as is the requirement under s40 of the Environmental Protection Act 1994, then why is the Springsure Creek Agricultural Plan not included as part of this EIS?, particularly since the ToR directs the proponent specifically to describe the agricultural environmental values, assess the impacts to the agricultural environmental values and provide detailed mitigation strategies for impacts to the agricultural environmental values.		A description of agricultural values and an assessment of impacts is included in Chapter 5 - Land of the final EIS as described above. Please refer to Chapter 1 - Introduction in the final EIS which provides a graphical representation of the environmental management process and at what point management plans are developed. Detailed management plans are not prepared until later project stages. One of the aims of the Springsure Creek Agricultural Plan, including the commitment to research, will be defining co-existence and benchmark existing agricultural productivity. Work to assist in this has commenced and will progress as the project develops.
45.19	General	If the purpose of the Springsure Creek Project, which comprises both the Mining Project and the Agricultural Project, is to demonstrate that underground longwall mining and agriculture can coexist, then both projects must be scrutinised together. Regardless, the proponent's failure to provide the Agricultural Plan (which by their own admission doesn't actually exist yet- Chapter 19 – 19.5.2), does not satisfy the purpose of the EIS for the mining project as stated above, is contrary to law and it creates the situation where this EIS repeatedly grossly fails to conform with the terms of reference for the project.		The EIS is for the Springsure Creek Coal Mine as the component of the Springsure Creek Project requiring an environmental approval. It is our view that the EIS satisfactorily addresses all issues as required by the Terms of Reference.
45.20	General	...SCC...list increased agricultural production as a beneficial impact of this project when they clearly have not properly described the environmental value (in terms of agricultural production and productivity at least), they have not predicted the impacts to agricultural environmental values appropriately and they have provided absolutely no mitigation strategies, because as it stands, their strategy is to implement an agricultural plan that does not yet exist. The proponent, the public and the department therefore have no ability to determine the level of risk to agricultural environmental values from the proposed activities and no way to assess the suitability of the non-existent mitigation strategies and no capacity to review the level of residual risk		As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been completed for the MLA. Chapter 5 - Land in the final EIS has been updated with reference to this report. This includes further information regarding soil types, erosion rates, etc. It is our view that the EIS satisfactorily addresses all issues as required by the Terms of Reference.

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		<p>post-mitigation.</p> <p>The EIS coordinator for this project must direct the proponent to provide the above information, and this information must be provided to the public for scrutiny and further comment. The EIS coordinator must also provide an explanation as to why the project was allowed to progress to the public submission phase in the first place, given that the final EIS fails so significantly to comply with the terms of reference.</p> <p>The proponent must be directed to provide ALL necessary information, above the matters contained within this or any other submission, so that the EIS or its supplementary complies with the ToR. The EIS coordinator must also ensure that any further information provided to the department by the proponent is provided to the public for comment and that it satisfies the ToR as per s49(2) of the Environmental Protection Act 1994.</p>		
45.21	Chapter 11 - Noise and Vibration	Figure 11-2 Construction Phase noise contour plots shows the Springton Homestead between the 31 decibel and the 34 decibel plot. This is above the 28 decibel limit [for night time noise limits]. Furthermore, the figure is incorrect as it does not provide contour plots for the construction of the mine vents and the 50ML dam, which are the closest mine infrastructure to the Springton and Den-Lo Park homesteads.	The construction phase noise contour modelling must be redone to account for construction of the 50ML environmental dam and the mine vents.	As a short-term activities, the construction of the dam and ventilation vents is not required to be assessed. No construction work on the dam or ventilation vents will occur during the night time period and community consultation will be undertaken prior to the works commencing.
45.22	Chapter 11 - Noise and Vibration	Table 11-15 Predicted operational phase noise limits at sensitive receptors provides noise levels of 38 and 32 decibels for Springton and Den-Lo Park homesteads respectively. However, Figure 11-3 indicates that the noise levels for Springton Homestead will be between 40 and 43 decibels and the noise levels for Den-Lo Park will be 37 to 40 decibels.		Figure 11-3 was incorrect. This has been amended in the final EIS.
45.23	Chapter 11 - Noise and Vibration	Some general mitigation strategies are outlined in Chapter 11, but because they have not been modelled it is unclear how successful these proposed strategies will be in reducing noise levels. Given that the actual noise levels that will be experienced at sensitive receptors, particularly Springton Homestead and Den-Lo Park Homestead, will be greater than those estimated in the EIS, more rigour is required in these analyses.	<p>The proponent must be directed to:</p> <ul style="list-style-type: none"> ~ Re-model the construction phase of the project assuming the appropriate noise levels at the 50ML environmental dam and the mine vents, which are the closest mine ~ Model mine construction and operation scenarios with mitigations applied 	Guidelines for noise modelling require a worst case unmitigated scenario to be modelled to identify potential unmitigated impacts. Based on those results, potential management and mitigation measures are identified. These are presented in Chapter 11.

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			<p>~ Accurately describe the noise impact levels expected at sensitive receptors</p> <p>~ If mitigation is unsuccessful in reducing noise levels below threshold levels, the proponent must describe alternative locations for the mine infrastructure</p>	
45.24	Appendix 3 - Standard Criteria	<p>Enhance individual and community well-being and welfare.</p> <p>The EIS does not provide information on the individual well-being of landholders in the project area impacted by the proposed activities, but they will not be enhanced.</p> <p>The well-being of the agricultural service industry community has not been addressed.</p> <p>A holistic cost-benefit analysis of the project has not been undertaken.</p> <p>The proponent admits that the benefits will be to the wider community in terms of employment and increased government revenues.</p>		<p>SCC continues to engage with landholders directly regarding impacts on them and their businesses. Compensation agreements will be negotiated and entered into as appropriate. There is no requirement in the ToR to undertake a cost-benefit analysis of the project.</p>
45.25	Appendix 3 - Standard Criteria	<p>Intergenerational equity</p> <p>SCC states that intergenerational equity is achieved because the project allows for agriculture to continue during mining and areas used for mine infrastructure will be rehabilitated to similar productive land uses.</p> <p>Intergenerational equity cannot be demonstrated because SCC can provide no evidence that agriculture can continue as it now currently does during mining.</p> <p>There is no evidence that mined areas can be successfully rehabilitated to a similar previous land use. There are no cases world wide where this has been achieved on vertosol soils. The project is going to have long lasting and perhaps permanent detrimental effects on groundwater.</p> <p>The project is going to impact negatively in agricultural production.</p> <p>The project will alter surface water flows and drainage, which will impact negatively on agricultural productivity.</p> <p>The project will be mining a non-renewable resource.</p>		<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity. With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p> <p>Note that the following projects have investigated the effects of mining on agriculture: CARP Project No: C8018 EFFECT OF LONGWALL MINE SUBSIDENCE ON PLANT PRODUCTION ON CROPPING LAND D Hinchliffe, P Matthew and U Pillai-McGarry (School of Agronomy and Horticulture, University of Queensland, Gatton); H.B. So (School of Land and Food Sciences, University of Queensland, St Lucia); and D. Mulligan (Centre for Mined Land Rehabilitation, University of Queensland, St Lucia). This project studied the impact of Long Wall Mining Subsidence on wheat and soybean production at the Kestrel Mine, Emerald, QLD. They measured germination and yield for winter wheat and germination for soybeans. Soil and moisture characteristics were also measured. The impact of subsidence on wheat germination was minimal, however, germinations were slightly higher on the pillar sites than both the subsided and un-subsided sites. There was no significant impact on wheat yield, soybean germination or on any of the soil or moisture characteristics.</p>

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				<p>ACARP PROJECT C15013 MONITORING THE EFFECT OF LONGWALL MINE SUBSIDENCE ON NATIVE VEGETATION AND AGRICULTURAL ENVIRONMENTS Paul Frazier, Ross Jenkins, Tieneke Trotter; ECOLOGICAL AUSTRALIA</p> <p>Two landscapes were investigated using a whole of mine site technique including remote sensing, ground survey and traditional agricultural monitoring methods. The landscapes were at the Kestrel site in Emerald, QLD including forage sorghum and an improved pasture and at Beltana in the Hunter Valley, NSW including an irrigated lucerne pasture and an unimproved native pasture. At each site a stratified sampling procedure was undertaken to ensure samples from non-mining, pillar, transition and longwall panel centre zones. Samples were collected via:</p> <ul style="list-style-type: none"> • Vegetative field sampling (quadrat based for biomass, plant species, percent vegetative cover, leaf area index, plant height) • Soil sampling (cores and pits for pH, EC, % moisture) • Proximal sensors (EM38 for topsoil electrical conductivity, Crop Circle for NDVI) • Satellite and airborne imagery (Airborne video, QuickBird and SPOT 5) <p>The soil sampling taken at the start of the project at Beltana and Kestrel showed minimal variation across all sites. For the sites already mined there were no measureable effects of Long Wall Mining Subsidence in the soil properties. There was no significant difference in the available biomass, measured by dry weight between the subsidence zones in the lucerne or native vegetation at Beltana. There was no significant difference in biomass between the mined and unmined areas in the sorghum crop.</p> <p>The remote sensing data collected at the Beltana site, used to assess change between longwall zones pre and post mining in the lucerne and native vegetation indicated there were no trends that indicate Long Wall Mining Subsidence had an impact on the vegetative biomass. Remote sensing images were used to determine changes between Kestrel areas which had been mined compared with areas not undermined. There were significant differences between the longwall or contour zones, however, there were no temporal trends that indicate that Long Wall Mining Subsidence had an impact on the vegetative biomass. Throughout the duration of this project, no significant effect on agricultural production was found at either site.</p>
45.26	Appendix 3 - Standard Criteria	Protect biological diversity and maintain essential ecological processes SCC has proposed mitigation measures in Chapter 12 - Ecology The project will have long term deleterious impacts on groundwater The project will substantially alter the topography and surface water flows and drainage, to the extent that habitats will be altered. The project will induce erosion of soils.		<p>Since preparation of the EIS, where we have been able to gain the consent of landholders, additional hydro census, groundwater level, aquifer properties and water quality data has been collected from properties and groundwater infrastructure maps updated. Additional data has been gathered from further drilling operations. Using the additional data collected, both the hydrogeological conceptual model and the numerical model have been updated. A revised groundwater report has been prepared along with a mitigation and monitoring strategy. Please refer to Chapter 9 and Appendices 4-7a and 4-7b of the final EIS.</p> <p>Based upon the assessments undertaken, it is unlikely there will be any impact on the quantity or quality of groundwater from existing bores.</p> <p>Additional surface water quality data has been collected at four locations (February 2013) and include the Springsure Creek Inflow to Den-Lo Park Dam, Upstream from the Project area on Springsure Creek, Upstream from the Project area on Station Creek and Upstream of the Project area on Unnamed Creek 4. Water quality data and parameters measured at these sites during this period</p>

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				<p>include an extended suite of tested and measured parameters as outlined in the DNRM, Guideline Model Water Conditions for Coal Mines in the Fitzroy Basin.</p> <p>Sampling at these sites is ongoing and data will be used to develop specific water Quality trigger values for the Project. This sampling program will be extended to include additional sites (potentially including locations used in initial sampling program) as necessary, and will form the basis of the Projects Water Quality Sampling Program. Data from this sampling program will also be used to develop site specific trigger values for the Project.</p>
45.27	Appendix 3 - Standard Criteria	<p>Decision making based on long and short term considerations</p> <p>SCC considers that Chapter 12 – Ecology, Chapter 14 – Social and Chapter 16 – Economic present the relevant impacts of the project. Impacts to ecology through modification to the landscape, dewatering of groundwater, altering surface drainage have not been considered</p> <p>Social impacts have failed to consider impacts on the local agricultural industry. Holistic short and long term economic assessments have not been undertaken which factor in the financial impact to the environment (soils, topography, surface and groundwater) and agriculture, for example. The sale price of coal is also overestimated, and consideration is not given to impacts of this and other projects on social values when coal prices decline and mines close.</p>		<p>It is a requirement of the Strategic Cropping Land Act that SCC rehabilitates any impacts to strategic cropping land as a result of mining and we are aiming to maintain and improve strategic cropping land which is impacted by the proposed project. We have asked to be conditioned on co-existence making it a condition of an Environmental Authority that we demonstrate co-existence prior to mining activity extending beyond Den-Lo Park.</p> <p>As mentioned in responses to issues above, we have addressed all requirements of the ToR and have demonstrated any potential impacts can be managed and mitigated appropriately.</p>
45.28	Appendix 3 - Standard Criteria	<p>The precautionary principal</p> <p>SCC claim that an assessment of the level of risk of environmental harm from the project has been undertaken and is consistent with the precautionary principal.</p> <p>Environmental values have not been properly identified, particularly with reference to environmental values for agriculture. Not all impacts have been properly identified, particularly with reference to impacts on agriculture.</p> <p>Therefore the evaluation of the risks of each impact has not been properly investigated. Very few mitigation strategies have been proposed for impacts to environmental values from the project, and many mitigation strategies that have been discussed, do so in too little detail. The consequence is that the residual risk post mitigation is unable to be determined or ascribed incorrectly.</p>		<p>The potential impacts of the Project on agriculture and other environmental values have been clearly identified throughout the EIS. As noted above, agricultural values have been addressed in Chapter 5 - Land.</p>
45.29	Appendix 3 - Standard Criteria	<p>Global environmental impact</p> <p>SCC suggests that this is addressed through Chapter 10 – Air Quality</p> <p>No consideration is given to the project’s contribution to decline in arable land</p>		<p>As noted above, SCC is committed to co-existence. SCC is confident that there will be no impact on agricultural productivity on either or local or any other scale. Please refer to Chapter 5 - Land for the assessment on agricultural productivity.</p>



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		<p>No consideration is given to the project's contribution to decline in access to potable water</p> <p>No consideration is given to the project's contribution to impact on global food production</p>		
45.30	Appendix 3 - Standard Criteria	<p>Development of a strong, growing and diversified economy which can enhance the capacity for environmental protection</p> <p>SCC suggests that this is addressed in Chapter 16 – Economy</p> <p>A cost-benefit analysis of the project including all impacts is not provided.</p> <p>The EIS does not demonstrate how the project enhances the capacity for environmental protection.</p>		<p>The ToR does not require a cost-benefit analysis of the project.</p> <p>Our commitment to co-existence is demonstrated through the funding of an independent Agricultural Co-existence Research Committee established to guide co-existence research. This research is aimed at maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas (among other things).</p>
45.31	Appendix 3 - Standard Criteria	<p>Enhancing international competitiveness in an environmentally sound manner</p> <p>SCC considers that this is achieved through adoption of the latest mining methods and good practice environmental management.</p> <p>The proponent does not provide mitigation strategies for impacts to groundwater, surface water, agricultural production, soils etc., so it is unclear how the project will achieve best practice environmental management.</p>		<p>Mitigation strategies in relation to groundwater, surface water, agricultural production, soils, etc are included in the relevant EIS Chapters. Chapter 18 - EM Plan provides a framework for the achievement of best practice environmental management.</p>
45.32	Appendix 3 - Standard Criteria	<p>Cost effective and flexible policy instruments</p> <p>The design of the project is not consistent with government policies including the EP (Noise) Policy 2008, State Planning Policy 1/92 GQAL, State Planning Policy 1/12 Strategic Cropping Land, EP (Water) Policy 2009 in regard to water having environmental value as drinking water supply and for agriculture.</p>		<p>The Project design is consistent with government policies allowing activities with adequate mitigation of adverse effects on the environment. The mitigation measures provided in the relevant EIS chapters identify the potential unmitigated Project impacts. Measures to avoid, mitigate or offset adverse environmental impacts are then identified. The establishment of conservative trigger levels and monitoring of potential pathways to impact will identify unintended impacts before they have adverse effects, and allow for remedial or restorative management actions.</p>
45.33	Appendix 3 - Standard Criteria	<p>Any applicable environmental protection policy</p> <p>The project is not consistent with the EP (Noise) Policy 2008 as this EIS has identified that noise levels will exceed policy limits for construction and operation of the mine at sensitive receptors.</p> <p>The project is not consistent with the EP (Water) Policy 2009 as this EIS has identified that water used as drinking water supply and water used for agriculture will be substantially negatively impacted.</p>		<p>Note that the impact assessments undertaken for the project identify potential unmitigated impacts. With the implementation of mitigation measures as outlined in Chapter 11 - Noise and Vibration, and Chapter 8 - Surface Water, impacts can be reduced to appropriate levels.</p>
45.34	Appendix 3 - Standard Criteria	<p>Any applicable Commonwealth, State or local government plans, standards, agreements or requirements</p> <p>The project is not consistent with the State Planning Policy 1/92 Good Quality Agricultural Land, as GQAL will be negatively impacted by the project and as this EIS shows,</p>		<p>SCC is committed to ensuring that GQAL and SCL are maintained and the existing landform and suitabilities are returned post mining.</p> <p>Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been completed for the MLA. This detailed soil sampling included a total of 176 observation sites and 76</p>



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		<p>there are numerous other proposed and operational mines within the general area.</p> <p>The project is not consistent with the State Planning Policy 1/12 Strategic Cropping Land, as SCL will be permanently alienated by the project and as this EIS shows, there are numerous other proposed and operational mines within the general area.</p>		<p>detailed borehole descriptions. Mapping has been carried out at a scale of 1:50,000 as recommended by DNRM to provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites. Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008.</p> <p>Results from this study will be used to determine the SCL suitability of the area and supplied to DNRM to inform the Project SCL Protection decision. On completion these results will be used to further develop management programs and plans for the Project. Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For lands which are deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p>
45.35	Appendix 3 - Standard Criteria	<p>The character, resilience and values of the receiving environment</p> <p>Comments are similar to those raised for ESD.</p> <ul style="list-style-type: none"> • Environmental values have not all been adequately identified (e.g., land use suitability and capability class maps); • This results in an inappropriate level of sensitivity being ascribed to the value; • Impacts have not been properly identified and described (e.g., agriculture, noise); • This results in inappropriate mitigations and management techniques being identified, if at all; • Residual impacts will likely be greater than expected or identified. <p>Owing to the inaccuracies and omissions in the EIS, it is not possible at this time to conclude that the proposed development activities are compatible with the character, resilience and values of the receiving environment. But indications are that they are not (e.g., long term and potentially permanent impacts to groundwater, noise limits exceeded at sensitive receptors).</p>		<p>SCC considers that the character, resilience and values of the receiving environment have been adequately identified and addressed through the technical studies and in the EIS Chapters.</p>
45.36	Appendix 3 - Standard Criteria	<p>Best practice environmental management for activities under an instrument or proposed instrument</p> <p>Comments are similar to those raised above.</p> <ul style="list-style-type: none"> • Environmental values have not been correctly identified (e.g., land use suitability and capability maps); • This results in an inappropriate level of sensitivity being ascribed to the value; • Impacts have not been identified (e.g., to agriculture, 		<p>Chapter 18 - EM Plan includes a framework for overall mitigation and management of impacts. As noted previously, and as shown diagrammatically in Chapter 1, specific Environmental Management Plans will be developed prior to construction</p>

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		<p>noise);</p> <ul style="list-style-type: none"> • This results in inappropriate mitigations and management techniques, if any at all; • Residual impacts will likely be greater than expected or identified. <p>It is troubling that SCC commits to developing management plans, and that these management plans are proposed as mitigation strategies, when the legislation clearly states that the EIS is supposed to describe mitigation strategies in detail.</p>		
45.37	Appendix 3 - Standard Criteria	<p>The financial implications of the requirements under an instrument, or proposed instrument, mentioned in the paragraph above as they would relate to the type of activity or industry carried out, or proposed to be carried out, under the instrument.</p> <p>SCC has not provided any details of mitigations with respect to agriculture. These, apparently will be provided later in an Agricultural Plan. However, this is contrary to the requirements of this EIS. It also appears that most other management plans are also only proposed at this stage, and therefore the financial implications of the requirements under an instrument have not been considered.</p>		Please refer to Chapter 5 - Land for mitigation measures in relation to agricultural impacts.
45.38	Appendix 3 - Standard Criteria	<p>The public interest</p> <p>The public interest has not been addressed for many of the reasons listed above. If the public is not provided with enough information to determine the extent of impacts to environmental values, whether these impacts can be mitigated and the associated cost- benefit analysis for the circumstance where mitigation is successful or unsuccessful, then the public interest regarding the project cannot be determined.</p>		It is considered that the relevant EIS chapters and technical appendices identify and provide adequate information that will allow the public to make a reasonable assessment of the Project's potential effects on the environment, and the potential for mitigation.
45.39	Appendix 3 - Standard Criteria	<p>Any applicable site management plan</p> <p>SCC admit that there is currently no applicable site management plan for the project but direct the reader to consider the EM Plan and to specific site management plans in the EIS. I must assume that SCC is here referring to the raft of proposed plans (e.g., erosion and sediment control plan, subsidence management plan, agricultural plan) that don't yet exist.</p>		Chapter 18 - EM Plan outlines the overarching environmental management framework. This plan will guide the development and implementation of specific environmental management plans prior to mine construction in order to ensure that management practices and processes are in place to avoid, mitigate or offset environmental impacts.
45.40	Appendix 3 - Standard Criteria	<p>Any relevant integrated environmental management system or proposed integrated environmental management system.</p> <p>SCC admit that there is currently no applicable integrated</p>		Please refer to Chapter 18 - EM Plan which includes an EMS framework.

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		<p>environmental management system for the project but direct the reader to consider the EM Plan and state that effective and appropriate environmental management strategies will be implemented throughout the life of the Project. I must assume that SCC is here referring to the raft of proposed plans (e.g., erosion and sediment control plan, subsidence management plan, agricultural plan) that don't yet exist.</p>		

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s.73 irrelevant info

Submission number	Topic	Comment	Recommendation / Suggestion	Response
46.1	Chapter 1 - Introduction	Page1-22 – It is noted very limited consultation has taken place regarding the EIS - This will have the potential to restrict the number of persons submitting submissions. Why is this? This project has concerns for the wider population and Australia’s future.		<p>Up until the public notification of the EIS consultation with landholders was focussed around individual meetings, predominantly associated with rehabilitation of previous drilling activity. Subsequent to this landholder engagement has continued, mainly on an individual basis through compensation discussions, restricted land identification and other EIS and Mining Lease related activities.</p> <p>A number of directly affected landholders attended a public information session in Springsure and many nearby landholders attended a similar session in Gindie. At these meetings, and subsequent to that there has been an open invitation for any landholders, whether individually or in a group, to further discuss the project with representatives of Bandanna Energy and SCC, including our technical specialists.</p> <p>As a result of this invitation, a number of meetings and further discussions have taken place with landholders in the area. These discussions have mainly focussed on monitoring of groundwater, air quality and noise, and some additional monitoring has taken place.</p> <p>During the preparation of the Supplementary EIS, direct contact has been made with all submitters, including directly affected and nearby landholders who made submissions, and an invitation to discuss the project, their submission to the EIS, and any other related issues, has been made. Further meetings and discussions have been held with a number of landholders regarding the project.</p> <p>SCC is committed to developing positive relationships within the local community and being open and transparent in all of our communications and discussions about the project. If at any time you wish to discuss the project, please contact Michael Gray or Carolyn Summers.</p> <p>Copies of the EIS Notice were provided to all affected and interested persons and published in The Australian, Courier Mail and CQ News. This meets the statutory requirements of section 51(2) of the EP Act.</p>
46.2	Chapter 2 - Project Needs and Alternatives	Section 3.8 Note that rehabilitation of SCL has not been achieved in Australia.		<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity. With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p> <p>Note that the following projects have investigated the effects of mining on agriculture: CARP Project No: C8018 EFFECT OF LONGWALL MINE SUBSIDENCE ON PLANT PRODUCTION ON CROPPING LAND D Hinchliffe, P Matthew and U Pillai-McGarry (School of Agronomy and Horticulture, University of Queensland, Gatton); H.B. So (School of Land and Food Sciences, University of Queensland, St Lucia); and D. Mulligan (Centre for Mined Land Rehabilitation, University of Queensland, St Lucia). This project studied the impact of Long Wall Mining Subsidence on wheat and soybean production at the Kestrel Mine, Emerald, QLD. They measured germination and yield for winter wheat and germination for soybeans. Soil and moisture characteristics were also measured. The impact of subsidence on wheat germination was minimal, however, germinations were slightly higher on the pillar sites than both the subsided and un-subsided sites. There was no significant impact on wheat yield, soybean germination or on any of the soil or moisture characteristics.</p>

Submission number	Topic	Comment	Recommendation / Suggestion	Response
				<p>ACARP PROJECT C15013 MONITORING THE EFFECT OF LONGWALL MINE SUBSIDENCE ON NATIVE VEGETATION AND AGRICULTURAL ENVIRONMENTS</p> <p>Paul Frazier, Ross Jenkins, Tienke Trotter; ECOLOGICAL AUSTRALIA</p> <p>Two landscapes were investigated using a whole of mine site technique including remote sensing, ground survey and traditional agricultural monitoring methods. The landscapes were at the Kestrel site in Emerald, QLD including a forage sorghum and an improved pasture and at Beltana in the Hunter Valley, NSW including an irrigated lucerne pasture and an unimproved native pasture. At each site a stratified sampling procedure was undertaken to ensure samples from non-mining, pillar, transition and longwall panel centre zones. Samples were collected via:</p> <ul style="list-style-type: none"> • Vegetative field sampling (quadrat based for biomass, plant species, percent vegetative cover, leaf area index, plant height) • Soil sampling (cores and pits for pH, EC, % moisture) • Proximal sensors (EM38 for topsoil electrical conductivity, Crop Circle for NDVI) • Satellite and airborne imagery (Airborne video, QuickBird and SPOT 5) <p>The soil sampling taken at the start of the project at Beltana and Kestrel showed minimal variation across all sites. For the sites already mined there were no measureable effects of Long Wall Mining Subsidence in the soil properties. There was no significant difference in the available biomass, measured by dry weight between the subsidence zones in the lucerne or native vegetation at Beltana. There was no significant difference in biomass between the mined and unmined areas in the sorghum crop.</p> <p>The remote sensing data collected at the Beltana site, used to assess change between longwall zones pre and post mining in the lucerne and native vegetation indicated there were no trends that indicate Long Wall Mining Subsidence had an impact on the vegetative biomass. Remote sensing images were used to determine changes between Kestrel areas which had been mined compared with areas not undermined. There were significant differences between the longwall or contour zones, however, there were no temporal trends that indicate that Long Wall Mining Subsidence had an impact on the vegetative biomass. Throughout the duration of this project, no significant effect on agricultural production was found at either site.</p>
46.3	Chapter 9 - Groundwater	Most bores were only sampled twice. Surely this does not provide adequate results with seasonal variation. Why has there been no long term monitoring? What make good provisions will be implemented?		<p>Subsequent to the EIS being prepared, additional groundwater quality and level data have been collected to date and continues to be collected. The groundwater sampling program which has taken place to date has targeted a number of bores in the area associated with the Project. These bores and sampling location have been selected to provide a representation of the area for groundwater assessment and modelling. The groundwater assessment completed for the project indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>SCC will install long-term groundwater monitors at a number of locations around the site to monitor impacts on the groundwater system as a result of mining activities. The bores proposed to be monitored as part of the long-term monitoring are still being identified, however we will be seeking to identify bores that provide a representation of the area.</p> <p>Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply.</p> <p>Section 9.6 provides further information regarding mitigation measures that can be undertaken to manage any potential impacts on groundwater.</p>

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46.4	Chapter 6 - Traffic and Transportation	It appears there are errors in describing the roads. This is a farming community and all roads will need to be upgraded to cater for increased traffic, including highways with increasing traffic due to cumulative traffic impacts of other mining projects in Queensland.		<p>SCC understands the road is a shared community asset and will endeavour to work with stakeholders, including landholders to manage any impacts.</p> <p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It should be noted this does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.</p> <p>SCC will work with stakeholders including the Central Highlands Regional Council, Department of Transport and Main Roads, and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road Use Management Plan which will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
46.5	General	<p>SCL policy is about protecting our best food producing soils – Springsure Creek Project should not be putting our future food production areas in jeopardy.</p> <p>Ecologically Sustainable principles - the need for food and water security and Australia’s long term ability to supply food for future generations has not been addressed satisfactorily.</p>		<p>The evidence in the scientific reports ACARP Project No: C8018 and ACARP PROJECT C15013 noted above demonstrate that agricultural production can be maintained on land that is subsided by longwall mining methods.</p> <p>Section 3 of the Strategic Cropping Land Act 2011 sets out the purposes of the Act as follows: "(a) protect land that is highly suitable for cropping; (b) manage the impacts of development on that land; and (c) preserve the productive capacity of that land for future generations."</p> <p>The Springsure Creek Agricultural Project has been developed with the aim of maintaining and improving strategic cropping land which could be impacted by underground longwall mining. Through the implementation of the Springsure Creek Agricultural Plan, land improvement agreements, land management, co-existence research and reporting and review processes will seek to ensure that impacts on cropping land from mining activity are adequately managed.</p> <p>If the project were to be approved, it would be a requirement of the Strategic Cropping Land Act that SCC rehabilitates any impacts to strategic cropping land as a result of mining. The Springsure Creek Agricultural Project has been developed with the aim of maintaining and improving strategic cropping land which is impacted by the proposed project. The Springsure Creek Agricultural Plan will set out how the Agricultural Project will be undertaken. Key features of the Plan are: land improvement agreements, land management, coexistence research, and reporting/review. The implementation of these measures will ensure that any long-term productivity of agricultural land within the proposed project site will not be significantly affected.</p>

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Cotton Australia

Submission number	Topic	Comment	Recommendation / Suggestion	Response
47.01	Chapter 5- Land	<p>Cotton production relies on a specific set of conditions to sustain a profitable annual crop. As a business, all cotton growers rely on these conditions to maintain its financial viability...Subsidence impacts creates a system of 'humps' and 'hollows' that create surface drainage and pondage issues across an irrigation scheme. Furthermore subsidence impacts such as waterlogging, compaction and irregular ripening of the crop have been noted in a specialized report commissioned by Cotton Australia (discuss in the following paragraph). Similar impacts to dryland production exist whereby the natural drainage landscape is significantly altered which ultimately affects yield, profitability, and sustainability of farming operations. To exacerbate this issue, a limited availability of priceless topsoil in EPC 891 prevents remediation options such as re-levelling or rebuilding soil profiles which bring any rehabilitation plan for land uses reliant on this topsoil into question. Importantly, there is no detail regarding a subsidence management plan and the implications on agricultural production.</p> <p>Cotton Australia opposes any mining development unless and until it can be definitively proven, that the development will have no impact on the productive capacity of the land.</p>	<p>1) Any existing or approved mines are rehabilitated to their pre-development productive capacity, within five-years of ceasing production</p> <p>2) A mining development approval must include a comprehensive rehabilitation plan, with clear and enforceable timeframes</p>	<p>SCC is committed to maintaining or improving agricultural productivity on subsided land and has demonstrated this commitment by investment in the independent Agricultural Co-existence Research Committee which has been established to guide co-existence research aimed at:</p> <ul style="list-style-type: none"> Maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsided areas; and Understanding community expectations and identifying strategies to minimise adverse impacts and maximise the social and economic benefits of the mining investment. <p>The mine infrastructure area (MIA) has been designed and sighted (where practicable) to minimise impacts on SCL land on the Den-Lo Park property. The design has been modified to reduce the overall size to 60 ha. On completion of the Project it is the objective of SCC to restore and rehabilitate the land used by the MIA to suitable agricultural use.</p> <p>Management plans will be developed with affected landholders on a longwall panel by longwall panel and paddock by paddock basis which will include measures for managing residual subsidence to minimise the impacts on agricultural practices.</p> <p>We are seeking conditions of approval to include the requirement to prove co-existence while maintaining or improving agricultural productivity.</p>
47.02	Chapter 5- Land	<p>Cotton Australia has recently commissioned an expert report entitled "Risks and Impacts of Coal Mine Subsidence on Irrigation Areas" (Refer to Annex A of original submission for this report and its conclusions).</p> <p>Predicted subsidence of this magnitude [1.2m to 2.3m] will be catastrophic to local cotton production and as such is completely rejected by Cotton Australia.</p>	<p>Coexistence with landholders overlying this project must be achieved by ensuring that there will be no subsidence that will affect their business</p>	<p>SCC and Bandanna Energy are committed to the co-existence of agriculture and mining. We are seeking conditions of approval to include the requirement to prove, and be held accountable for, co-existence while maintaining or improving agricultural productivity. With an independent Agricultural Co-existence Research Committee and with longwall mining being undertaken on Den-Lo Park for the first 5 years (based on current mine planning), we have a considerable period of time to undertake and apply research to prove co-existence before impacting any other properties. Should we not be able to demonstrate co-existence we will not be able to proceed beyond our own Den-Lo Park property.</p> <p>Note that the following projects have investigated the effects of mining on agriculture: CARP Project No: C8018 EFFECT OF LONGWALL MINE SUBSIDENCE ON PLANT PRODUCTION ON CROPPING LAND D Hinchliffe, P Matthew and U Pillai-McGarry (School of Agronomy and Horticulture, University of Queensland, Gatton); H.B. So (School of Land and Food Sciences, University of Queensland, St Lucia); and D. Mulligan (Centre for Mined Land Rehabilitation, University of Queensland, St Lucia). This project studied the impact of Long Wall Mining Subsidence on wheat and soybean production at the Kestrel Mine, Emerald, QLD. They measured germination and yield for winter wheat and germination for soybeans. Soil and moisture characteristics were also measured. The impact of subsidence on wheat germination was minimal, however, germinations were slightly higher on the pillar sites than both the subsided and un-subsided sites. There was no significant impact on wheat yield, soybean germination or on any of the soil or moisture characteristics.</p>

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				<p>ACARP PROJECT C15013 MONITORING THE EFFECT OF LONGWALL MINE SUBSIDENCE ON NATIVE VEGETATION AND AGRICULTURAL ENVIRONMENTS Paul Frazier, Ross Jenkins, Tienieke Trotter; ECOLOGICAL AUSTRALIA</p> <p>Two landscapes were investigated using a whole of mine site technique including remote sensing, ground survey and traditional agricultural monitoring methods. The landscapes were at the Kestrel site in Emerald, QLD including a forage sorghum and an improved pasture and at Beltana in the Hunter Valley, NSW including an irrigated lucerne pasture and an unimproved native pasture. At each site a stratified sampling procedure was undertaken to ensure samples from non-mining, pillar, transition and longwall panel centre zones. Samples were collected via:</p> <ul style="list-style-type: none"> • Vegetative field sampling (quadrat based for biomass, plant species, percent vegetative cover, leaf area index, plant height) • Soil sampling (cores and pits for pH, EC, % moisture) • Proximal sensors (EM38 for topsoil electrical conductivity, Crop Circle for NDVI) • Satellite and airborne imagery (Airborne video, QuickBird and SPOT 5) <p>The soil sampling taken at the start of the project at Beltana and Kestrel showed minimal variation across all sites. For the sites already mined there were no measureable effects of Long Wall Mining Subsidence in the soil properties. There was no significant difference in the available biomass, measured by dry weight between the subsidence zones in the lucerne or native vegetation at Beltana. There was no significant difference in biomass between the mined and unmined areas in the sorghum crop.</p> <p>The remote sensing data collected at the Beltana site, used to assess change between longwall zones pre and post mining in the lucerne and native vegetation indicated there were no trends that indicate Long Wall Mining Subsidence had an impact on the vegetative biomass. Remote sensing images were used to determine changes between Kestrel areas which had been mined compared with areas not undermined. There were significant differences between the longwall or contour zones, however, there were no temporal trends that indicate that Long Wall Mining Subsidence had an impact on the vegetative biomass. Throughout the duration of this project, no significant effect on agricultural production was found at either site.</p>
47.03	Chapter 5- Land	<p>There are a number of errors and inconsistencies which suggest that the document was not prepared with great care or attention to detail. mapping under “Figure 5-4 Existing Land uses across the Springsure Creek Project area” (The land use for Den-Lo Park is categorised as Irrigated cropping here) and Figure 5-9 Mapped GQAL across the Springsure Creek Project area is inconsistent. The land use for Den-Lo Park is categorised as Class C1 and C2. The GQAL description of Class C is Pasture land: Land that is suitable only for improved or native pastures due to limitations which preclude continuous cultivation for crop production; by some areas may tolerate a short period of ground disturbance for pasture establishment. Under Figure 5-10 SCL Assessment at the Project area, the assessment of Den-Lo Park is a mix of SCL, Potential SCL and Non-SCL.</p>		<p>Subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping was carried out at a scale of 1:50,000. This scale has been recommended by DNRM to provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites. Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008.</p> <p>Results from this study will be used to determine the SCL suitability's of the area and as supporting information for DNRM SCL assessment decision. Please refer to Chapter 5 – Land in the final EIS.</p> <p>Management measures developed for the Project and incorporated into the Subsidence</p>

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				<p>Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For land deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act.</p> <p>SCC will not be seeking to utilise any existing agricultural water supplies. Subsequent to the EIS being prepared, an allocation of 1,000 mega litres of water per year from Sunwater's Nogoa-McKenzie Water Supply Scheme has been secured to supply water to the mine site.</p>
47.04	Chapter 5- Land	Given the degree of inconsistency in land categorisation noted above- it is difficult to accept that the proponent has sufficient knowledge of what level or use the land must be rehabilitated		<p>As noted above, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. Please refer to Chapter 5 - Land in the final EIS.</p> <p>Notwithstanding the more detailed survey undertaken, SCC is committed to the co-existence of underground longwall mining and agriculture and has invested in an independent Agricultural Co-existence Research Committee. One of the aims of the Committee is to define co-existence with regard to this project to enable a baseline to be established prior to mining taking place. This will enable co-existence to be measured once mining starts and compliance with conditions of approval relating to co-existence to be monitored.</p> <p>Management plans will be developed with affected landholders on a longwall panel by longwall panel and paddock by paddock basis which will include measures for managing residual subsidence to minimise the impacts on agricultural practices. With mining not scheduled to take place on some properties for a number of years it is premature to develop management plans based on current cropping regimes and farming practices, and without the benefit of the co-existence research and experience of mining having taken place on Den-Lo Park.</p> <p>The continued use of land for agricultural activity, including cropping, is evident in areas throughout the world. As noted above in more details, within Australia ACARP research projects C1808 and C15013 demonstrate that agricultural productivity can be maintained on subsidised land.</p>
47.05	Chapter 5- Land	The data sets are not representative of the entire MLA. Four of the soil borehole locations are actually outside the boundary of EPC 891.		<p>As previously noted, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping was carried out at a scale of 1:50,000. This scale has been recommended by DNRM to provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites. Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008.</p>
47.06	Chapter 5- Land	The study covers EPC 891, EPC 1221 and MLA 70461. This EIS is not related to EPC 1221, and MLA 70461 has been rejected by the Minister for Natural Resources and Mines. We fail to see the relevance in incorporating these titles for the purposes of assessing the environmental impacts of the project in question		<p>The study was undertaken over both EPCs. Including results from the EPC 1221 does not reduce the validity of the results for EPC 891.</p> <p>Notwithstanding this, as noted above a more detailed soil and land suitability survey has been completed for MLA 70486.</p>



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47.08	Chapter 5- Land	Data used to make the provisional assessment of potential strategic cropping land was supplied by Bandanna Energy, the parent company of SSC.		Noted.
47.09	Chapter 5- Land	[The EIS States] "Complete coverage of the EPC and MLA was not achieved as permission to enter properties was refused in some cases", this statement is completely incorrect, there has not been a single incidence of any landholder refusing access to their property for such purposes.		Chapter 5 - Land has been amended to remove any references to refusal of entry to properties. As previously noted, subsequent to the EIS being prepared, a more detailed soils and land suitability survey has been undertaken for the MLA. This detailed soil sampling included a total of 176 observation sites and 76 detailed borehole descriptions. Mapping was carried out at a scale of 1:50,000. This scale has been recommended by DNRM to provide an appropriate scale for investigation and mapping of study areas which may contain both potential cropping and grazing land. This scale of mapping requires a minimum of two sites per 100 ha of which 20% should be detailed sample sites and approximately 80% observation sites. Taking the preliminary and detailed field work together, a total of 251 investigation sites have been provided across the Project area of 10,736 ha, including 88 detailed sites. This total exceeds the minimum sampling requirements by McKenzie 2008.
47.10	Chapter 5- Land	Under s.5.4.5.5-Strategic Cropping Land of the EIS- it is noted that "The final figures for SCL, potential SCL and non-SCL are provided below in Table 5-14. Figure 5-10 provides a map of the SCL assessment at Project area. These SCL results only relate to the areas surveyed, further details of the SCL assessment of the Project area are included in Appendix A4-1". We note however that the Project area referred to Appendix A4-1 is MLA 70461, which is a different Project area (in size and shape) to that of MLA 70486, this EIS relates to MLA 70486. We are surprised by the fundamental error in assessment and require reference to MLA 70486 to make relevant comments for this project.		The MLA for the Project is MLA 70486. References to other MLA numbers within the EIS at the time of printing are errors. All reference errors within the EIS Chapters have been corrected.
47.11	Chapter 5- Land	Section 5.5.1.2 -Subsidence Prediction Method notes "A technical assessment was undertaken by Strata Control Technology (SCT) to predict subsidence within the Project area (refer Appendix A4-2 for the complete report)". Under Appendix A4-2, the Subsidence Report states "the subsidence predictions are our best estimate from the available data" and that "mine data provided by Bandanna Energy and used for the subsidence predictions". Given the above noted inaccuracies- Cotton Australia is not confident it can rely on the subsidence predictions provided by the proponent...We note again that subsidence impacts are unacceptable to the Australian cotton industry and cannot possibly be accepted in any way.	Further ground-truthing and independent verification and oversight is required to provide any confidence in the assessment process.	Chapter 5 - Land section 5.5.1.2 has been amended to provide for the following limitation: <i>"The modelling which has been undertaken to date represents a worst case scenario and as such provides the basis for determining impacts. All modelling approaches will have some element of inaccuracy, SCC has committed to basing management on worst case predictions, to insure the best outcomes. As such, the actual level of subsidence may be less significant than modelled and result in less severe impacts. Nevertheless the management approaches employed will be sufficient to mitigate these impacts and insure agricultural coexistence. These measures will be documented into the specific management plans (e.g. SMP) developed for the Project."</i>
47.12	Chapter 5- Land	the EIS states "It should be noted the mine plan has since been amended and has been reduced in size." An amended mine plan effectively invalidates the proponents subsidence predictions. SCT Operations state in their report (located in Appendix A4-2 Subsidence Report, Springsure Creek 3D Subsidence Predictions,	The predictions relate to a project already rejected by the Minister for Natural Resources and Mines. The subsidence predictions must be remodelled	Subsidence predictions are based on a mine plan which is larger that the proposed mine plan. As such, predictions are conservative considering the size of the current MLA and mine plan. The modelling which has been undertaken to date represents a worst case scenario and as such provides the basis for determining impacts.

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		Executive Summary) “ the reliability of these predictions relies on the closeness of the site characteristics to the empirical trends and requires that the extraction heights are realised, the mine plan remains unchanged and the pillar sizes are as planned”. The subsidence predictions have been prepared using the area and boundary of MLA 70461...		
47.13	Chapter 5- Land	Tilt is discussed under s.5.5.1.4 EIS. Tilt is not note in relation to existing slope and hence impossible to determine actual environmental impact unless further information is provided. Cotton Australia cannot currently determine from the EIS whether the post mining slope is no greater than 2.5% in total or, whether the post mining slope be the current slope plus up to an additional 2.5% slope. If the post mining slope is determined by the latter (i.e. current slope plus 2.5%), and the resulting slope is greater than 3%, the land would be considered ‘permanently alienated under SCL legislation. The entire MLA is located within the SCL Central Protection Zone, and the exemption given to EPC 891 does not allow Bandanna Energy to permanently alienate SCL. The level of tilt resulting from subsidence is a major and potentially determining factor in the viability of this entire Project.		<p>SCC does not intent to permanently alienate any land within the MLA.</p> <p>Additional explanation relating to final slopes (tilt) has been included in Chapter 5 - Land of the final EIS. It should be noted that SCC is committed and restoring the landscape such that it meets all SCL criteria - including tilt/slope.</p> <p>Management measures developed for the Project and incorporated into the Subsidence Management Plan will ensure that the integrity of the soil surface and landscape characteristics are maintained. For land which is deemed to be SCL, management will extend to all characteristics which are defined within the SCL Act. This includes tilt.</p>
47.14	General	<p>Cotton Australia is believes the current EIS has not reasonably attempted to address all elements of the TOR [refer to original submission for summary].</p> <p>The omission of the key operational features of the project including a rail load out facility, pipelines and power supply infrastructure undermines the ability of the reader to ascertain the true impact of the project on the whole...It is clear that the train load out facility and transport and infrastructure corridor were to be part of the completed EIS but have been omitted at the end...This omission undermines the ability of the EIS to accurately assess the impacts of the project in entirety and cumulatively.</p> <p>This negates the ability of the reader to understand the true impacts of the project, nor is it consistent with the TOR. As such it is reasonable to deduce that the project has assessed a significantly different project in terms of methodology, size and timeframe. We believe that this project is so significantly different from what is proposed in the TOR that commentary would not truly be related to the project in question, and that the Department of EHP would not considering a suitably similar EIS.</p>		<p>It is our view that the EIS does comply with the Terms of Reference and all requirements have been addressed within the EIS.</p> <p>SCC has consulted with the Department of Environment and Heritage Protection with regards to the appropriate assessment of the project and it components, including the separation of approval processes for the various components of the project. Any potential cumulative effects resulting from the mine, infrastructure corridor, and train load out facility will be addressed through the approvals process for the infrastructure corridor and train load-out facility.</p> <p>No coal processing plant is proposed. Section 3.5.3 of the EIS states that the project is based on all run of mine coal being transported off site without the need for benefaction (processing). In the event that benefaction is required, this would be a dry process and not require any significant amount of water.</p> <p>Differences between the TOR and EIS relating to the project description (e.g. coal production rate, number of longwalls, mine life and workforce profile) do not affect the conclusions of the EIS. The assessment presented in the EIS has been based on the description of the project within the EIS (i.e. 11 Mtpa, 2 longwalls, 40 yr mine life and current workforce) and actual assessment methodologies and scope would not vary as a result of these changes. The proposed management measures presented in the EIS are appropriate for a project of this scale. The differences between the project description presented in the TOR and EIS are not considered to be material changes in terms of size, location, nature or intensity.</p>

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47.15	General	<p>Given the current exemption to the SCL Act, we insist that if the proponent wishes to separate the assessment processes, it must be made clear that the transport and infrastructure corridor and rail load out facilities:</p> <ul style="list-style-type: none"> • Will not receive any special considerations or exemptions • Transitional arrangements within Strategic Cropping Land Act 2011 289 and 290 will not apply • There is no sovereign risk involved as the proponent has chosen to split the approvals process 		<p>The transitional provisions under section 289 of the SCL Act only apply to resource activities described in an EIS resulting from the finalised Terms of Reference relating to EPC 891. This refers to the Springsure Creek Coal Mine Project EIS. Any application for an Environmental Authority (EA) relating to EPC 891 does not need to demonstrate exceptional circumstances in order to be granted. However, the EA for activities on EPC 891 cannot be issued until an SCL Protection Decision has been made, in accordance with section 93 of the SCL Act. Any Protection Decision will impose SCL protection conditions which must consider the principles of SCL of protection, avoidance, minimisation, mitigation and productivity (section 11 of the SCL Act). These conditions would as a minimum include the SCL protection conditions provided by section 290 of the SCL Act i.e. no open cut mining, the EA holder must use all reasonable endeavours to rehabilitate all impacts on the land from underground coal mining, etc.</p> <p>The proposed infrastructure corridor and train load-out facility are located outside of EPC 891 and are therefore not exempt from the Permanent Impact Restriction. SCC will be undertaking appropriate assessments and seeking approvals for the infrastructure corridor and train load-out facility in accordance with the full requirements of the SCL Act.</p>
47.16	General	<p>Cotton Australia must insist here that any supplementary EIS is available for public comment that addresses all missing elements not adequately addressed in the TOR.</p>		<p>SCC has made contact with a number of submitters and offered the opportunity to discuss their submission further. Copies of written responses to submissions have been provided to each submitter along with an electronic copy of the final EIS. The finalised EIS is also available on the project website www.springsurecreekproject.com. The final EIS is now subject to assessment by EHP and an EIS report will be released in due course in accordance with the statutory approvals process we are going through. The statutory process does not provide for the final EIS to be available for public comment.</p> <p>If however, you wish to discuss the project at any time please feel free to contact us on either 1800 230 064 or at enquiries@springsurecreekproject.com.au.</p>
47.17	General	<p>Based on information obtained from both chapters 5 and 8 (land and Surface Water respectively), it is clear that the proponent does not have an acceptable level of understanding on the necessities required for cotton production.</p>		<p>As noted above, the independent Agricultural Co-existence Research Committee will be guiding research into (among other things) maintaining natural resources and agricultural productivity during mining operations and enabling restoration of agricultural productivity on areas affected by mining activities including subsidised areas. This will include investigating a number of crops, including cotton.</p>
47.18	General	<p>It is clear from both the EIS and from consultation with our constituency that consultation with the local cotton industry and agriculture sector more broadly has been minimal despite reports to the contrary. As seen in s.1.4.1 of the EIS, a variety of stakeholders were consulted [list provided by submitter, refer to original submission for details]. We note the omission of any agricultural peak organisation such as Cotton Australia. The only noted consultation with a group representing agricultural interest is the Golden Triangle Group who has not been consulted with specific reference to this EIS.</p>		<p>To date consultation activities in relation to agricultural use of the land have been with individual landholders. It is expected that more direct engagement will take place with industry bodies through co-existence research.</p>



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47.19	Chapter 8 - Surface Water	The understanding and assessment of overland flows and ponding impacts is addressed in the most minimal manner under sections 8.5.3. Localised Flood Conditions, and 8.5.4 Ponding. Here there is no significant reference to agricultural impacts despite the high proportion of agricultural businesses located within the MLA.		<p>The EIS (table 8-13) has been updated to include a more detailed reference to agricultural impacts from localised flooding and ponding events, e.g. impacts on crop yield and production value. Mitigation and Management measures will also be developed to deal with this issue.</p> <p>A flood model was developed using "rain on grid" hydrology. Rainfall was applied directly to the entire MLA area and natural topography dictated overland flow and ponding. Maximum values (water level, depth, velocity, shear stress, stream power and ponding) were determined and displayed via mapping. All results are for the unmitigated case assuming all subsidence occurs simultaneously - meaning a worst case scenario.</p> <p>Further staged assessments will be undertaken as the project progresses to analyse in finer detail the effects of any likely changes to overland flow and ponding regimes and subsequent effects on individual properties. This will include likely effects on current soil management (including sediment and erosion controls), irrigation and general agricultural practices.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
48.1	Chapter 6 - Traffic and Transportation	The safety of Gem Road intersection entering Glenorina Road to travel east and the safety of entering Gem Road, especially from the east, as it is on a long sweeping bend	Intersection works to put in A) a turning lane to enter Gem Road from the west, B) road widening so vehicles can overtake vehicle turning into Gem Road from heading west, and C) new access from Gem Road to Glenorina Road heading east to allow for non-stopping and quick access to road and to gain appropriate speed. A 'T' intersection would not be appropriate at the location.	<p>SCC understands the road is a shared community asset and will endeavour to work with stakeholders, including landholders to manage any impacts.</p> <p>SCC will work with stakeholders including the Central Highlands Regional Council (CHRC), the Department of Transport and Main Roads (TMR), and the school bus committee to discuss the design of local road improvements to cater for all road users, and to further develop a Road User Management Plan which will be reviewed regularly throughout the project to ensure it remains current. This will include the consideration of intersection upgrades.</p> <p>SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p>
48.2	Chapter 6 - Traffic and Transportation	Poor condition of the current Glenorina Road which will only deteriorate substantially with the large volume of additional traffic, including heavy vehicles that will result from the mine. All landholders adjacent to the road use it to haul winter and summer crops in road trains, and the poor condition of the road contributes to additional wear and tear on vehicles and delays in getting the grain to the depots, which can have seriously repercussions on farm to get harvesting down in a timely fashion, around rain, storm and hail events and adds additional cost to contractor fees.	Springsure Creek Coal to be vigilant and an active and strong financial partner with Central Highlands Regional Council to maintain all aspects of the Glenorina Road (and Highway), including gully and creek crossings, intersections and road base.	SCC will engage with CHRC and TMR to agree on a maintenance regime for roads frequently utilised by mine related vehicles.
48.3	Chapter 6 - Traffic and Transportation	The hindrance and time delays to agricultural heavy machinery movement between two landholder's properties.	A) A network of overtaking lanes constructed on Glenorina Road and other local roads to allow for safe overtaking of agricultural machinery and trucks, B) an education program for mine employees and contractors on safe and respectful driving in relation to rural agricultural roads, and C) Mine over-dimensional vehicle use kept to a minimum and landholders affected kept up to date with movements well in advance.	As mentioned above, SCC will engage with stakeholders in the design of local road upgrades. The use of the roads by agricultural equipment, especially at harvesting and planting times will be taken into consideration. As mentioned at the Gindie Information Session in February, options such as pull-off bays can be considered to provide areas where large vehicles can safely pass each other.
48.4	Chapter 8 - Surface Water	Raising of the Glenorina Road at Minerva Creek will hold back substantial amounts of flow and this water will back up further along Minerva Creek, causing flooding over land not currently ever flooded, resulting in A) delayed access to s.73 irrelevant inform for property maintenance and operations, B) detrimental impacts to riverine ecology and riparian zone habitat, as well as potentially scouring out riparian banks, increasing sedimentation and impacting on property tracks	As the road would have to be raised so high to be above flood height, we are unsure how to mitigate this issue. If it has to happen, appropriate design with extensive pipes to allow maximum flow of water would be required.	Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.

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		and fencing, C) potential stock losses from flooding.		As part of the design process, detailed flood modelling and hydraulic design will be undertaken. Minor and major flood events will be modelled and design of flow conveyance structures (culverts/bridges etc) will be undertaken to minimise upstream and downstream flooding of properties.
48.5	Chapter 9 - Groundwater	<p>s.73 irrelevant along with many other properties would fall outside the 10 kilometre radius for bore monitoring but we believe underground water streams are far more reaching than this and that there is a very real and serious threat of impact on these underground streams, which not only contribute to the health of waterways when they surface as springs, contributing to flows and wetlands, but can be the life blood of grazing enterprises such as s.73 irrelevant</p>	<p>With the undertaking of the mine operations, bore monitoring should be extended much further afield and given very serious consideration.</p>	<p>The groundwater assessment completed for the project indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity.</p> <p>Subsequent to the EIS being prepared, additional groundwater quality and level data have been collected, and continue to be collected. The groundwater sampling program which has taken place to date has targeted a number of bores in the area associated with the Project. These bores and sampling locations have been selected to provide a representation of the area for groundwater assessment and modelling.</p> <p>SCC will install long-term groundwater monitors at a number of locations around the site to monitor impacts on the groundwater system as a result of mining activities. The bores proposed to be monitored as part of the long-term monitoring are still being identified. As noted, we will be seeking to identify bores that provide a representation of the area.</p> <p>Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply. Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater.</p>

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17.01	Chapter 9 - Groundwater	I have great concerns that the SCC mining could and will affect my ground water supplies, both quantity and quality. Ground waters supply our houses and buildings, as well as nearly all stock water for our property. We normally run over 300 head of cattle and we are concerned about how they would get water if the bores were to drop in capacity and quality, and especially if they went dry overnight. We believe measures should be in place before mining commences in case such events do arise. No-one in the mining company has approached us about our bores, as requested.	We believe our bores should be tested and monitored by sec before, during and after mining. This could be done by drilling several monitoring bores for this purpose. Possibly we could be given guaranteed access to the proposed water pipeline passing our property, or guaranteed supply by other means. Disruption to our ground water supply would have a serious impact on our business.	Subsequent to the EIS being prepared, additional groundwater monitoring has been undertaken, including some at your property "Wyntoon". The groundwater assessment completed for the project indicates there is unlikely to be an impact on the groundwater resource in terms of quality or quantity. SCC will install long-term groundwater monitors at a number of locations around the site to monitor impacts on the groundwater system as a result of mining activities. Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply. Section 9.6 outlines mitigation measures that can be undertaken to manage any potential impacts on groundwater.
17.02	Chapter 8 - Surface Water	Overland Flow - I am concerned that the proposed road improvements will cause significant problems during rain and flood events. Elevated road improvements will inevitably cause water to back up and pond, potentially drowning grass and crops. When the water finally breaks through, the fast flowing water will cause serious erosion to land and crops downstream. One only needs to look at the severe damage to land and infrastructure where the Rolleston rail line crosses the Comet River. Not enough thought is put into the effect these changes will have on roads and properties, and the significant damage resulting could greatly impact our ability to continue operating our farming business.		Detailed flood modelling and hydraulic design will be undertaken for proposed local road upgrades. Minor and major flood events will be modelled and design of flow conveyance structures (culverts/bridges etc) will be undertaken to minimise upstream and downstream flooding of properties. Road upgrade designs will also be designed taking into account the flood model developed for the area as part of this project. CHRC, the Department of Transport and Main Roads, the local school bus committee and representatives of the local agricultural committee will be engaged during the design phase to ensure upgrades take into account the needs of all road users.
17.03	Chapter 10 - Air Quality	Dust - s.73 irrelevant information. Our winds are predominately from the east to the south. We are very concerned about dust that may blow over our property. We are also seriously concerned that coal dust will have an adverse effect on our health as we have members of our family who suffer from asthma. Any increase in the number of times and severity of asthma attack could be life threatening. We are also extremely concerned about coal dust contaminating our rain water supplies which are our source of drinking water and for chemical application. Loss of our rain water would have a big effect on our daily lives.	Dust monitoring should be a must for those who live down wind of the proposed mine.	SCC understands the impact that dust can have on agriculture, properties and water. Subsequent to the EIS being completed, additional baseline dust monitoring has been undertaken. Air quality modelling undertaking has concluded that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations. Long term air quality monitors will be installed at a number of locations around the site. These monitors will be 'real time' meaning data from the monitors will be communicated to the mine site as it is collected enabling an immediate response to any issues raised.
17.04	Chapter 11 - Noise and Vibration	Noise, vibration and visual amenities - Prevailing winds not only bring dust, but also noise. s.73 irrelevant information. s.73 irrelevant information. we will suffer more noise impact from the increased traffic on the road, as well as probably from mining operations to our south east. Vibration from blasting will be evident, as well as	Due to our close proximity we would want notification of any blasting activities as a common courtesy to surrounding land and homeowners.	A communications plan will be developed which will include protocols for notifying nearby landholders of any activities such as blasting. This plan will be developed in consultation with the landholders to ensure the methods of communication are suitable.

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		increased lighting at night.		
17.05	Chapter 6 - Traffic and Transportation	Over dimensional vehicle management - Contract farming and share farming are a large part of our business. We frequently move oversized farm machinery along many roads in the vicinity of the mining area. With greatly increased traffic flows, shifting oversized machinery will be more difficult, and we are concerned about our ability to continue to do so in a timely and safe manner. The big problem will be the proposed road upgrades that will be needed. Road designs are commonly well above ground level with steep verges. These steep verges make it almost impossible to pull over or off the road with oversized machinery when there is oncoming or following traffic. It may be several kilometres before a suitable site can be found to safety pull over.	This problem could be greatly alleviated with gentle slopes on the road verges and bays to pull off regularly along the roads, say every one to two kilometres.	The local agricultural community is a key stakeholder in the design of local road upgrades. SCC will engage with representatives with the local community, along with CHRC, the Department of Transport and Main Roads and the local School Bus Committee in developing the design of upgrades. As mentioned at the Gindie Public Information Session localised widening features such as pull-off bays can be incorporated into the design to provide safe area for large vehicles to pass each other.
17.06	Chapter 12 - Ecology	We are concerned about the wellbeing and safety of native animals in this area. Currently on ^{s.73 irrelevant information} we have a thriving, breeding colony of koalas on land ^{s.73 irrelevant information} . We have commonly sighted koalas crossing ^{s.73 irrelevant information} Road, and ourselves and local people recognise and watch out for them. With increased traffic on the road, we believe the koalas existence will be in jeopardy and it will only need a few deaths to decimate the population. We also often see echidnas crossing ^{s.73 irrelevant information} Road and we are concerned about their fate as well. There are also numerous other native animals that use Nine Mile Creek as a nature strip to cross ^{s.73 irrelevant information} Road.	Statement only - no recommendation given	In addition to the mitigation measures to reduce the risk of fauna mortality outlined in Section 12.8.3, SCC will be developing policies and procedures for all staff using local roads. This will include awareness of the presence of local fauna and what to do in the event of an incident.
17.07	Chapter 16 - Economics	We are concerned that the viability of our farming business will be significantly altered and, quite likely, seriously jeopardized by the proposed sec mine. ^{s.73 irrelevant information} ^{s.73 irrelevant information} If we are unable to farm that land it will mean 22% loss in our farming area, which will have a huge negative economic impact on our business. Further, we also currently conduct contract farming operations (planting, fertilising, harvesting) on other land proposed to be purchased by SCC. The loss of this contracting business would represent a further loss of approximately 20% of income of our business. A total loss of some 40% of our business activity would be economically devastating for us, and would quite likely make us unviable.		SCC is committed to maintaining or increasing agricultural productivity on properties directly affected by the mine and as such is not proposing to cease farming activities or cause impacts that result in landholders not being able to farm. Any disruptions to active agricultural activity on areas impacted by mining would be limited to the actual area currently being subsidized and the area immediately adjacent. On Cowley, based on the current mine plan, the first subsidence is not scheduled to occur until 2023.
17.08	Chapter 14 - Social Impacts	During the mining boom over the last ten or fifteen years, there has been undoubted growth and gains in housing and businesses in our local towns of Emerald and Springsure. However, such gains in these towns have actually had a negative impact on our business.		Noted.

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		<p>All the businesses and services we require to operate our farming business (which include suppliers of seed, chemicals and fuel; and machinery sellers and dealers, tradesmen and so on) all struggle against the high cost of housing and wages and lack of staff, as a result of the booming mining business. This has greatly affected services to our business. For example, it is very difficult to get tradesmen on a timely basis compared to what it was before the mining boom. We believe SCC will be just compounding these difficulties and will therefore have a negative effect on our business.</p> <p>Increased mining activity has also made it extremely difficult for us to freight our produce to markets. Our grain has very limited access to rail transport due to competition from coal, and road transport is difficult to access and expensive as a result of demands from the mining industry and the high freight rates they can afford to pay. SCC will not improve this situation and only add to the problems for our business.</p>		
17.09	Chapter 16 - Economics	<p>Impact on local property values - The EIS only refers to housing property values and ignores the impacts on local rural property values.</p> <p>Farm businesses, like all businesses rely on their equity to fund operation, development and expansion in their business. Farming businesses situated close to the SCC mine now find themselves in a difficult position as the properties are considered to be unsaleable, by both banks and the market. No-one wants to buy a property next to a proposed coal mine. Such property owners are therefore unable to realise their equity if needed. Farmers are concerned about extreme losses in equity because of the property being unsaleable in the event that the banks foreclose. I believe that properties in close proximity to the SCC mine will be devalued if the mine proceeds, which could seriously affect our ability to borrow necessary operating funds for our business in future.</p>		<p>The Economic Report included as Appendix A4-16 to the EIS states in Section 5.11.2.2:</p> <p><i>"The construction and operation of the Project is likely to negatively impact on the demand for rural land in the immediate vicinity of the Project",</i> according to consultation with rural agents in the Study Area. However despite this negative impact on demand, real estate agents in the Study Area reported minimal negative impact on actual sales values as a result of previous mining developments in the region. As a result, the impact of the Project on rural property values due to co-existing land uses is expected to be minimal and restricted to those landholders directly affected by mine site infrastructure."</p> <p>Compensation agreements will be negotiated with those landholders that are proposed to be directly affected by the project and any land valuation issues will be addressed as part of negotiating these agreements.</p>
17.10	Chapter 6 – Traffic and Transport	<p>6.3.9 Movement of Stock</p> <p>This has been by far our greatest concern to date, as we frequently walk cattle along s.73 irrelevant Road to our yards. The extra traffic will make this almost impossible. To date, two near misses have already occurred involving SCC drilling personnel travelling on Wyntoon Road.</p>	<p>The only way that this can be safely managed will be for SCC to build us new cattle yards and required fencing on our grazing land west of the s.73 irrelevant Road.</p>	<p>SCC understands the road is a shared community asset and will endeavour to work with stakeholders, including landholders to manage any impacts.</p> <p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved.</p> <p>SCC will work with stakeholders including the Central Highlands Regional Council, the school bus committee and representatives from the local community to discuss the design of local road improvements to cater for all road users, including the movement of stock. Along with local road upgrades, a Road Use Management Plan will be developed. This will include,</p>

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				<p>among other things, initiatives to best manage any potential conflicts between stock movement and mine related traffic. This plan will be reviewed regularly throughout the project to ensure it remains current. This will be reviewed regularly throughout the project to ensure it remains current. SCC is committed to working with stakeholders to develop road user strategies that maximise safety for all road users.</p> <p>SCC will engage further with you in the design of local road upgrades and the development of the Road Use Management Plan to better understand stock movements and how they can be accommodated safely.</p>

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
28.1	Chapter 10 - Air Quality	10.2.3.2 Sensitive Community Receptors "Sixteen sensitive receptors (homesteads) were identified, using aerial imagery and on ground assessment, as having potential to be impacted by the Project activities"		Relevant tables and figures showing sensitive receptors have been updated, including residences on s.73 irrelevant information
28.2	Chapter 11 - Noise and Vibration	11.3.2 Sensitive Community Receptors "Sensitive receptors were identified according to schedule 1 of the EP Noise. Based on this, sixteen sensitive receptors (all homesteads) were identified, using aerial imagery and on ground assessment_ as having potential to be impacted by the Project"		As noted above, relevant tables and figures showing sensitive receptors have been updated, including residences on s.73 irrelevant information
28.4	Chapter 17 - Hazard and Risk	17.4.1-Sensitive Community Receptors "Fifteen homesteads occur within 16km of the main mine infrastructure area..."		As noted above, relevant tables and figures showing sensitive receptors have been updated, including residences on s.73 irrelevant information
28.5	Chapter 18 - Draft EM Plan	18.5.2.2- Sensitive Community Receptors Table 18-10 Sensitive receptor locations within wider Project area 18.5.3.3- Potential/Impacts on the environmental Value Table 18-17 Predicted construction phase noise levels at sensitive receptors Table 18-18 18.5.6.2- Landscape Character and Visual Amenity Figure 18-19 Homestead locations and features of the landscape	s.73 irrelevant information s.73 irrelevant information s.73 irrelevant information I believe we would be a sensitive community receptor located within the Project area	As noted above, relevant tables and figures showing sensitive receptors have been updated, including residences on s.73 irrelevant information
28.6	Chapter 6 – Traffic and Transportation	6.3.1.5 Milroy Downs Road s.73 irrelevant information The quality of the gravel on Milroy Downs Road is poor, and the road requires fresh gravel to be laid regularly to make it drivable after rain events. In the Executive Summary E4.3 Traffic and Transport, Milroy Downs Road is not listed as an access route. This is contradicted in Table 6-1 Anticipated Transport routes during construction and operation of the Project, as Milroy Downs Road is included as a route that will be used by mine vehicles. s.78B(2) Disclosure log		Milroy Downs Road is not proposed to be used as an access road. As noted in E4.3 and Chapter 6, Section 6.3.1 the proposed site access route will include the Gregory Highway, Glenorina Road, Wyntoon Road and Kilmore Access Road. Section 6.3.1.5 provides an explanation of Milroy Downs Road as part of the surrounding local road network. Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It should be noted this does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs. SCC will work with stakeholders including the Central Highlands Regional Council and the school bus committee to discuss the design of local road improvements to cater for all road users.

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Submission number	Topic	Comment	Recommendation / Suggestion	Response
		<p>The ability to maintain Milroy Downs Road as an all-weather road will have to be addressed if mine vehicles are to use Milroy Downs Road as an access route.</p>		
28.7	Chapter 9 - Groundwater	<p>9.6 Mitigation and Management Measures</p> <p><i>9.6.1-Aquifer Cross Contamination</i> <i>Cross contamination of aquifers during construction of the drift can be effectively mitigated by installing groundwater control systems during construction that will limit groundwater entering excavations and hence, cross contamination of aquifers.</i></p> <p>This section does not clarify if there are any methods they can use to ensure that groundwater is prevented from cross contaminating aquifers. Prevention of cross contamination is of high importance as groundwater is our sole source of drinking water.</p> <p><i>9.6.5 Landholder Bores</i> <i>Any registered landholder bores located in areas of significant drawdown may need to be deepened or replaced.</i></p> <p>If a landholder external to an “area of significant drawdown” experiences a drop in the level of their bore, an avenue of recourse should be made available to them. As bore water is vital both domestically and agriculturally in this community, any significant drop in the level or quality of water within the aquifer will have an adverse effect. Assistance should be provided to all homesteads disadvantaged by changes in water supply.</p>		<p>There is a potential for cross contamination of aquifers during construction of the cut and cover and drift. This has the potential to decrease water quality within the Basalt which is currently used by landholders for domestic, irrigation and stock watering supplies. Without any mitigation, the risk of this occurring has been assessed as ‘medium’.</p> <p>Mitigation measures that can be implemented to reduce the risk are outlined in Section 9.6.1.1 which notes: <i>Cross contamination of aquifers during construction of the drift can be effectively mitigated by installing groundwater control systems during construction that will limit groundwater entering excavations and hence, cross contamination of aquifers. These could include:</i></p> <ul style="list-style-type: none"> • <i>Impermeable cut off structures; and</i> • <i>Groundwater depressurisation systems</i> <p><i>Where any penetration (shaft, drift etc.) intersects multiple geological units it should be engineered such that it does not act as a pathway for migration of water between units.</i></p> <p>SCC will install long-term groundwater monitors at a number of locations around the site to monitor impacts on the groundwater system as a result of mining activities. Any impacts will develop over time enabling SCC will work with landholders to relocate or deepen affected bores along with any other water infrastructure (such as pipes and pumps) to ensure ongoing water supply. We will manage impacts on all landholder bores, whether registered or not.</p>
28.8	Chapter 18 – EM Plan	<p>18.5.4.11 Commitments</p> <p><i>The Proponent will commit to the following:</i></p> <ul style="list-style-type: none"> • <i>The relevant responsible staff member will investigate all substantiated surface water related complaints;</i> <p><i>Community members need to be informed of what constitutes a "substantiated surface water related complaint" and should be informed of any guidelines that need to be met to ensure that health and safety issues are addressed in a timely manner.</i></p> <ul style="list-style-type: none"> • <i>The Project will implement corrective actions resulting from validated complaint investigations as required;</i> <p><i>Community members need to be informed of what constitutes a</i></p>		<p>Information relating to enquiries and complaints is included in Chapter 19 – Draft SIMP.</p> <p>An enquiry and complaints register is being maintained within the stakeholder management database for the Project. This register documents the subject of the enquiry or complaint; record the actions undertaken to respond and close-out issue within specified timeframes. The target time of 24 hours (excluding weekends and public holidays) to acknowledge and respond to a query is being consistently met to date.</p> <p>A central point of contact for all enquiries and complaints is being maintained during the Project to enable the content and distribution</p>

Springsure Creek Coal Mine Project

Response to Submission to EIS



Submission number	Topic	Comment	Recommendation / Suggestion	Response
		<p>"validated" complaint so that any health and safety issues are addressed in a timely manner.</p> <p>To date, we have not been contacted by Bandanna regarding the proposed Springsure Creek Coal Mine Project. If the Project proceeds, each community member located within the Sensitive Receptor boundaries should be provided with written instructions on how to proceed with complaints and the contact details for relevant personnel.</p>		<p>of information to the community to be effectively managed and monitored. This central point comprises a 1800 number, project email and online registration form.</p> <p>As the project progresses, and prior to any construction commencing, there will be further engagement with the local community regarding project activities and communication channels.</p>
28.9	Chapter 15 – Health and Safety	<p>Chapter 15.2.4 Surface Water</p> <p>"As the project area is located in a predominantly rural location it can be assumed that all homesteads use rainwater tanks for potable water supply."</p> <p>It is a gross assumption that all homesteads use rainwater tanks. Our homestead relies solely on bore water for human consumption and all domestic use. We do not have any rainwater connected to the homestead. Therefore we are deeply concerned that the quality of bore water will be reduced if the Project proceeds.</p>		<p>The statement was made in the context of undertaking the air quality assessment and risk to health and safety of residents due to dust deposition potentially affecting drinking water supplies. By assuming that all homesteads use rainwater tanks we are taking a very conservative approach and assessing a 'worst case' scenario.</p> <p>Subsequent to the EIS being completed, additional baseline dust monitoring has been undertaken. Air quality modelling undertaken has concluded that no sensitive receptors will experience an adverse impact in air quality as a direct result of the mining operations.</p> <p>Sources of supply in water in the project area have been reviewed as part of updating the groundwater impact assessment (Chapter 9).</p>
28.10	Chapter 4 - Climate	<p>Table 4.5 Impacts and mitigation measures associated with Climate</p> <p>"Excessive rainfall- flooding is not expected to restrict access to the project area as local access roads will be upgraded to a higher level of flood immunity than currently exists."</p> <p>In the past three years since we have been residing at s.73 irrelevant info there have been a number of excessive rainfall events which have produced flooding that has restricted access to the project area. It is not uncommon for Glenorina Road to be cut off at Sandhurst Creek and Minerva Creek bridges, as well as two other smaller waterways that cross Glenorina Road. On 28th January 2012 a total of 178mm fell in 2 hours as a result of a localized storm cell. A total of 304mm of rain fell in January 2012 s.73 irrelevant info, which resulted in local roads being impassable on a number of days.</p>		<p>Local roads to be used for mine site access are to be upgraded to provide all weather access and a higher level of flood immunity than provided at present. This means roads will be sealed and drainage improved. It should be noted this does not mean roads will be flood-proofed. It is expected that some roads will become inundated and impassable in some storm events as currently occurs.</p> <p>Flood modelling was undertaken using 86 years of historic data from Bureau of Meteorology (BoM) weather stations, assessing multiple flooding scenarios. BoM data is used as it provides the most accurate data over a historic period of 80 years or more, with known consistent collection methods allowing for direct comparison between multiple stations.</p> <p>Assessment of storms and flooding for the climate change assessment has been based on CSIRO predictions for the area and how this may impact staff and the mining operations. The climate models used provide estimates based on simulated data from baseline sources which assess the probability of weather affecting the site based on historical weather patterns and predicted changes to the site.</p>

Springsure Creek EIS Field Survey Locations

Surveys undertaken

Fauna trap sites		Activi
T1	Fauna trapping	Bird Observation
T2	Fauna trapping	Bird Observation
T3	Fauna trapping	Bird Observation
T4	Fauna trapping	Bird Observation
T5	Fauna trapping	Bird Observation
T6	Fauna trapping	Bird Observation
T7	Fauna trapping	Bird Observation

Additional survey sites

Additional survey sites	Activities undertaken	
Site located east of MLA on drainage line	Bird Observation	Reptile active searching
Site located outside of MLA at intersection of Springton and Arcturus Road	Bird Observation	-
Site located within MLA, located at the south of the MLA	Bird Observation	Reptile active searching
Site 1 km south of MLA	Bird Observation	Reptile active searching
Site on drainage line 5-6 km south of MLA	Bird Observation	-

Aquatic Ecology

	Long	Lat
Springsure Ck 1	148.315000	-24.012920
Station Ck	148.398000	-24.039730
Turkey Ck	148.330000	-23.912230
East Dam	148.369000	-23.949990
West Dam	148.346000	-23.950560
Springsure Ck 2	148.378000	-23.956740

Survey

	Long	Lat
Flora		
Quaternary		
QS1	148.439872	-24.074986
QS2	148.422861	-24.043290
QS3	148.398086	-24.040172
QS4	148.419789	-24.032654
QS5	148.374273	-24.020594
QS6	148.374536	-24.020471
QS7	148.342436	-23.986924
QS8	148.325439	-23.985654
QS9	148.335207	-23.971159
QS10	148.362924	-23.968936
QS11	148.389928	-23.964478
QS12	148.379259	-23.957199
QS13	148.343872	-23.951875
QS14	148.345702	-23.951481
QS15	148.349122	-23.936983

QS16	148.344584	-23.927833
QS17	148.330103	-23.911323
QS18	148.349526	-23.910298
QS19	148.327281	-23.907936
QS20	148.285853	-23.856943
QS21	148.323752	-23.855388
QS22	148.371675	-23.898956
QS23	148.361108	-23.990152
QS24	148.380834	-23.950220
QS25	148.379445	-23.944212
QS26	148.377005	-23.941864

Secondary Transect

ST1	148.342712	-23.991129
ST2	148.362709	-23.978039
ST3	148.417708	-23.965454
ST4	148.387797	-23.963981
ST5	148.387009	-23.948577
ST6	148.286526	-23.857020
ST7	148.363713	-23.991395
ST8	148.374734	-23.964274

Observation site

Observation Site 1	148.425644	-23.853770
Observation Site 2	148.403654	-23.875843
Observation Site 3	148.358789	-23.984255
Observation Site 4	148.361767	-23.990416
Observation Site 5	148.364108	-23.991117
Observation Site 6	148.364525	-23.990895
Observation Site 7	148.374320	-23.964416
Observation Site 8	148.374310	-23.964418
Observation Site 9	148.380755	-23.950208
Observation Site 10	148.379856	-23.947829
Observation Site 11	148.379789	-23.943343
Observation Site 12	148.377724	-23.941540
Observation Site 13	148.377135	-23.941828
Observation Site 14	148.376430	-23.942622
Observation Site 15	148.442397	-24.070404
Observation Site 16	148.418182	-24.034066
Observation Site 17	148.420565	-24.033549
Observation Site 18	148.439505	-24.027911
Observation Site 19	148.341914	-24.026359
Observation Site 20	148.350426	-24.026198
Observation Site 21	148.358231	-24.025982
Observation Site 22	148.376570	-24.025728
Observation Site 23	148.335322	-24.022587
Observation Site 24	148.374503	-24.020868
Observation Site 25	148.370944	-24.011234
Observation Site 26	148.326625	-23.993735
Observation Site 27	148.342383	-23.987991



Observation Site 28	148.337149	-23.987878
Observation Site 29	148.325040	-23.985755
Observation Site 30	148.358497	-23.985110
Observation Site 31	148.326615	-23.982805
Observation Site 32	148.323418	-23.977922
Observation Site 33	148.320429	-23.976686
Observation Site 34	148.350848	-23.976402
Observation Site 35	148.351214	-23.976092
Observation Site 36	148.358479	-23.974977
Observation Site 37	148.367438	-23.974852
Observation Site 38	148.334198	-23.970953
Observation Site 39	148.318808	-23.970871
Observation Site 40	148.323157	-23.969019
Observation Site 41	148.329565	-23.968883
Observation Site 42	148.367819	-23.964043
Observation Site 43	148.420345	-23.962186
Observation Site 44	148.386060	-23.962100
Observation Site 45	148.385076	-23.961145
Observation Site 46	148.385184	-23.960477
Observation Site 47	148.376956	-23.960287
Observation Site 48	148.386857	-23.958563
Observation Site 49	148.385004	-23.957076
Observation Site 50	148.383391	-23.952159
Observation Site 51	148.344455	-23.951269
Observation Site 52	148.393152	-23.943081
Observation Site 53	148.398289	-23.942174
Observation Site 54	148.336113	-23.917639
Observation Site 55	148.325166	-23.904753
Observation Site 56	148.331510	-23.901983
Observation Site 57	148.315345	-23.900471
Observation Site 58	148.314749	-23.893109
Observation Site 59	148.304538	-23.867536
Observation Site 60	148.319355	-23.864024
Observation Site 61	148.304493	-23.846644
Observation Site 62	148.358384	-23.994440
Observation Site 63	148.360250	-23.986993
Observation Site 64	148.353384	-23.984839
Observation Site 65	148.357158	-23.981377
Observation Site 66	148.386554	-23.967254

			Long	Lat
ities undertaken				
Reptile active searching	Koala Search	-	148.417938	-23.965353
Reptile active searching	-	-	148.363527	-23.969172
-	Koala Search	Anabat	148.379365	-23.957137
-	-	-	148.382117	-23.952017
Reptile active searching	Koala Search	Anabat	148.344681	-23.952288
Reptile active searching	Koala Search	-	148.34868	-23.938288
-	Koala Search	Anabat	148.327979	-24.023705

	Long	Lat
-	148.437116	-24.0773
Koala Search		
	148.374531	-24.0285
Koala Search		
	148.372572	-24.0164
-	148.314082	-24.0135
Koala Search		
	148.437116	-23.9712

RTI DL Release

Springsure Creek EIS Field Survey Locations

Surveys undertaken						Long	Lat
Fauna trap sites		Activities undertaken					
T1	Fauna trapping	Bird Observation	Reptile active searching	Koala Search	-	148.417938	-23.965353
T2	Fauna trapping	Bird Observation	Reptile active searching	-	-	148.363527	-23.969172
T3	Fauna trapping	Bird Observation	-	Koala Search	Anabat	148.379365	-23.957137
T4	Fauna trapping	Bird Observation	-	-	-	148.382117	-23.952017
T5	Fauna trapping	Bird Observation	Reptile active searching	Koala Search	Anabat	148.344681	-23.952288
T6	Fauna trapping	Bird Observation	Reptile active searching	Koala Search	-	148.34868	-23.938288
T7	Fauna trapping	Bird Observation	-	Koala Search	Anabat	148.327979	-24.023705

Additional survey sites	Activities undertaken			Long	Lat
Site located east of MLA on drainage line	Bird Observation	Reptile active searching	-	148.437116	-24.0773
Site located outside of MLA at intersection of Springton and Arcturus Road	Bird Observation	-	Koala Search	148.374531	-24.0285
Site located within MLA, located at the south of the MLA	Bird Observation	Reptile active searching	Koala Search	148.372572	-24.0164
Site 1 km south of MLA	Bird Observation	Reptile active searching	-	148.314082	-24.0135
Site on drainage line 5-6 km south of MLA	Bird Observation	-	Koala Search	148.437116	-23.9712

Aquatic Ecology	Long	Lat
Springsure Ck 1	148.315000	-24.012920
Station Ck	148.398000	-24.039730
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West Dam	148.346000	-23.950560
Springsure Ck 2	148.378000	-23.956740

Survey	Long	Lat
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QS7	148.342436	-23.986924
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Observation Site 14	148.376430	-23.942622
Observation Site 15	148.442397	-24.070404



Observation Site 16	148.418182	-24.034066
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Observation Site 42	148.367819	-23.964043
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Observation Site 59	148.304538	-23.867536
Observation Site 60	148.319355	-23.864024
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Springsure Creek Coal Mine Project

Response to Submission to EIS



Department of Environment and Heritage Protection

Submission number	Topic	Comment	Recommendation / Suggestion	Response
0.1	Chapter 1 - Introduction	<p>Note: Referring to EM Plan</p> <p>P.1-31, Section 1.5.1.2 Queensland Legislation – Environmental Protection Act 1994, wording of fourth paragraph</p> <p>The wording 'draft' EM Plan in this paragraph (and throughout the EIS) is incorrect. Please note there is no 'draft' or 'final' EM Plan as per the EP Act. The Act refers to either a submitted EM Plan or amendments made to an EM Plan.</p>	<p>P.1-31, Section 1.5.1.2 Queensland Legislation – Environmental Protection Act 1994, wording of fourth paragraph – delete where struck-through:</p> <p>“According to the Act, the Project is a non-code compliant Level 1 mining activity. A site-specific draft EM Plan is therefore required under section 201 of the EP Act and this forms the basis of the draft EA conditions.”</p> <p>Amend references to 'draft EM Plan' throughout the EIS</p>	EIS has been amended as advised. 'Draft' removed from reference to EM Plan.
0.2	Chapter 18 - EM Plan	<p>Issue: Conditions under the NC Act</p> <p>Section 18.5.9 - Ecology</p> <p>The EM Plan does not state conditions relating impacts on native flora and fauna protected under the Nature Conservation Act 1992 (refer to comment made earlier on).</p>	<p>Include a new heading of the EM Plan with the following conditions:</p> <p>“Conditions: Impacts on Native Flora and Fauna</p> <p>The proponent must comply with the provisions of the Nature Conservation Act 1992 particularly in regard to the following:</p> <ol style="list-style-type: none"> Where there is a requirement for clearing of plants protected under the Nature Conservation Act 1992: <ol style="list-style-type: none"> Clearing of protected plants must only occur in accordance with a clearing permit or an exemption under the Nature Conservation Act 1992. Offsets must be provided for the permanent loss (take) of near threatened, vulnerable and endangered plants to achieve an equivalent or better overall outcome at a regional scale in accordance with the Queensland Biodiversity Offset Policy 2011. Where the activities of the proponent may cause disturbance (i.e. tamper – damage, destroy, mark, move or dig up) to animal breeding places the prior approval of EHP must be obtained. It is unlawful to tamper with the breeding place of a protected animal without authorisation. Section 332(4) of the Nature Conservation (Wildlife Management) Regulation 2006 identifies that the removal of a breeding place may occur under an approved species management program (SMP) or a damage mitigation permit (DMP). The definition of breeding place is 'a bower, burrow, cave, hollow, nest or other thing that is commonly used by the animal to incubate or rear the animal's offspring'. Where there is a need to take fauna, the prior approval of EHP must be obtained. In relation to an animal – 'take' includes to hunt, shoot, wound, kill, skin, poison, net, snare, spear, trap, catch, dredge for, bring ashore or – aboard a boat – pursue, lure, injure or harm the animal; or attempt to do any of these acts. The proponent should act in accordance with the management principles outlined in Section 73 Nature Conservation Act 1992, especially s73(a)(i) which states: “...protected wildlife is to be managed to conserve the wildlife and its values and, in particular to ensure the survival and natural development of the wildlife in the wild.” 	The EM Plan (Section 18.5.9 - Ecology) has been updated to include this statement as requested

Springsure Creek Coal Mine Project

Response to Submission to EIS



Submission number	Topic	Comment	Recommendation / Suggestion	Response
0.3	Chapter 10 - Air Quality	<p>Issue: Air emissions inventory for offsite activities</p> <p>Chapter 10 Air Quality and Appendix A4-8 Air Quality Report</p> <p>The terms of reference (TOR) requirement (page 30) - air emissions inventory for offsite activities: section 4.6.2 of the project TOR requires that the proponent "Provides a separate air emissions inventory of any offsite activities directly associated with the project, including fugitive emissions such as from rail or road transport of product or waste." Such an inventory does not appear in Chapter 10 Air Quality, or in the supporting Air Quality Report at Appendix A4-8.</p>	A separate air emissions inventory of any offsite activities directly associated with the project, including fugitive emissions such as from rail or road transport of product or waste, should be provided.	The Air Quality technical report (Appendix A4-8) has been updated to include an off-site emissions inventory. It should be noted however that EIS is for the mine only. Impacts associated with the transport corridor will be addressed in a separate approvals process.
0.4	Chapter 10 - Air Quality Appendix A4-8 Air Quality Report	<p>Issue: PM10 monitoring for compliance reporting</p> <p>P.10-34 Section 10.2.8.3 Monitoring and Complaint Register</p> <p>Air quality monitoring is to "... be undertaken using a real-time dust monitor such as the Protinus 1000. "so that "Real-time monitoring will allow air quality criteria to be immediately correlated with on-site activities..." The use of the Protinus 1000 (or the EVM-3 used to measure background PM10 concentrations) is not covered by an Australian Standard. As such, the monitor(s) could not be used for PM10 compliance reporting purposes.</p>	That where PM10 monitoring is to be undertaken for compliance reporting purposes, a monitor that is approved for the purpose be nominated and used.	SCC will undertake air quality compliance monitoring. This will be a combination of real time and dust deposition monitoring using monitors that provide for the best environmental outcome, as agreed through consultation with EHP.
0.5	Chapter 11 - Noise	<p>Issue: Rating background noise levels</p> <p>Section 11.3.3, Table 11-2 Rating background noise levels</p> <p>In Table 11-2 of Section 11.3.3, the rating background noise levels are derived from the measurement made and shown in Appendix A4-10 for the period 1st to 8th December 2011. This data contains insect noise which has not been filtered.</p> <p>It is specified in the TOR that seasonal variation should be taken into account. No noise measurements were taken in the winter period. No mention was made of seasonal variation nor discussion of the expected variation in level for the Rating background noise.</p>	Provide comments on the anticipated variation in level of the rating background noise levels and amend Table 11-2 accordingly.	Noise monitoring has been carried out as part of the supplementary EIS during May 2013 to capture winter noise levels. Both Chapter 11 - Noise and Appendix A4-10 have been updated to show these results.

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0.6	Chapter 12 - Ecology	<p>Issue: NC Act requirements</p> <p>Section 12.2 Relevant Legislation and Policies and subsequent sections</p> <p>The EIS, in section 12.9.1, states: “It is not anticipated that permits will be required under the NC Act as the project will not directly impact on native vegetation or fauna species.” This is incorrect as a permit under the NC would be required for any works that includes clearing of plants protected under the NC Act, and/or activities that may cause disturbance to animal breeding places, and/or and the taking of fauna under the Nature Conservation Act 1992 (NC Act) and section 332 of the Nature Conservation (Wildlife Management) Regulation 2006.</p> <p>For example, an authority under the NC Act is required for clearing of vegetation (e.g. for remedial works on subsidence cracks; as outlined in the EIS) or any other works that would potentially impact on vegetation which provides potential habitat for fauna, as it tampers with the breeding place of an animal.</p> <p>The proponent can apply to be registered for the generic least concern species management program through EHP Wildlife Management. For other EVNT, special least concern and colonial breeding species, a species management program would be required to be submitted to EHP Wildlife Management for consideration in relation to impacts to these species and appropriate mitigation measures where impacts can’t be avoided and mitigated.</p>	<p>In Section 12.2 include a statement that outlines the requirements of the proponent to comply with the provisions of the Nature Conservation Act 1992 particularly in regard to:</p> <ul style="list-style-type: none"> • the clearing of plants protected under the NC Act • a clearing permit or an exemption under the NC Act • activities that may cause disturbance (i.e. tamper – damage, destroy, mark, move or dig up) to animal breeding places • the taking of fauna. <p>Refer to the NC Act and section 332 of the Nature Conservation (Wildlife Management) Regulation 2006 for further details and definitions.</p> <p>These NC Act requirements would need to be also addressed in the EM Plan.</p>	<p>The statement has been inserted as requested into Chapter 12 - Ecology (Section 12.2) and Section 12.9.1 has been reworded to more closely align with the provisions of the NC Act.</p>
0.7	Chapter 12 - Ecology	<p>Issue: Lack of field surveys</p> <p>Section 12.5.2 —Field Surveys</p> <p>It is noted that many of the field surveys were not carried within the project, but outside of the MLA. This issue is important as the mapping of regional ecosystems (REs) can not be made reliably from outside the MLA (i.e. the surrounding road networks) and potentially occurring listed threatened species could not be targeted (flora and fauna). These are requirements of the TOR.</p>	<p>Additional RE assessment, as well as flora and fauna surveying will need to be carried out throughout the project area and especially along the riparian woodlands. These should be carried out in accordance with the requirements of the TOR, including ground-truthing REs, targeted listed species surveys, summer and winter surveys and a trapping program.</p>	<p>Additional ecological baseline surveys have been carried out as part of the supplementary EIS process during June 2013. All properties within MLA 70486 have now been accessed at least once for the purposes of baseline studies. The findings of the additional 2013 ecology surveys are reported in an amended Chapter 12 - Ecology and Technical Appendices A4-10 and A4-11.</p>

Submission number	Topic	Comment	Recommendation / Suggestion	Response
		<p>It is further noted, that the terrestrial fauna assessment (15.5.2.2) included three periods of surveying. An initial reconnaissance was primarily a planning exercise, but that which included bird surveying. Following was a 10 day survey 6-15 Dec 2011 hampered by inclement weather, and a 6 day survey 18-23 June 2012 which did not include Elliott trapping. It can be argued that the combination of inclement weather in the summer survey, the lack of trapping effort in the winter survey and the lack of fauna surveys across the project area limited the surveying success and subsequently the impact assessment as part of the EIS.</p>		
0.8	Chapter 12 - Ecology	<p>Issue: Hydrological flow P.12-22, Section 12.6 Existing Environmental Values</p> <p>The EIS states “The closest wetland protection area is located 2 km downstream from the project area along Springsure Creek” but no information on any changes that may occur to hydrological flows due to subsidence has been provided that demonstrates that the wetland of high ecological significance can maintain ecological functions before, during and after mine operation.</p>	<p>Recommendation: The project design and any changes to hydrological flows should be designed and managed to ensure that the wetland of high ecological significance can maintain ecological functions before, during and after mine operation. An impact assessment would need to be carried out which would state how potential impacts would be avoided, mitigated or offset.</p>	<p>Offsets for potential impacts on downstream vegetation communities are now included within the Biodiversity Offsets Strategy in set out in Chapter 12 - Ecology (section 12.9)</p>
0.09	Chapter 12 - Ecology	<p>Issue: Potential impacts and mitigation of subsided areas Page 12-92, Section 12.8.10 - Subsidence Management</p> <p>This section of the EIS (and EM Plan) does not address the possible physical impacts of subsidence on the land which may impact indirectly or directly on ecological values (aquatic and terrestrial flora and fauna). Issues not discussed, include:</p> <ul style="list-style-type: none"> • Lowering of bed and banks • Creation of in-stream waterholes • Changes to local drainage patterns • Incision processes • Stream widening • Erosion • Tension cracking through both shallow and deeper underlying strata, (including aquifers if 	<p>Include in the EIS and EM Plan sufficient information on the likely impacts of subsidence including changes on watercourses/drainage lines which may have direct or indirect impacts on aquatic and terrestrial flora and fauna.</p> <p>As a minimum, the EIS should assess the potential site specific impacts of:</p> <ul style="list-style-type: none"> • Lowering of bed and banks • Creation of in-stream waterholes • Changes to local drainage patterns • Incision processes • Stream widening • Erosion • Tension cracking through both shallow and deeper underlying strata, (including aquifers if applicable, if not applicable state so) • Root shear and loss of riparian vegetation in areas of deep subsidence • Impacts to vegetation due to prolonged inundation • Changes to water quality (surface water and groundwater) 	<p>Within Chapter 12 - Ecology, Section 12-7 (NB Table 12-19 Potential impacts to ecological values) and Section 12-8 have been updated to address ecological impacts as a result of watercourse subsidence. This is based on the physical impacts discussed in Chapter 8 Surface Water. These physical impacts will be managed according to DNRM's Central Queensland Mining Industry Guideline for watercourse subsidence.</p>

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		<p>applicable, if not applicable state so)</p> <ul style="list-style-type: none"> • Root shear and loss of riparian vegetation in areas of deep subsidence • Impacts to vegetation due to prolonged inundation • Changes to water quality (surface water and groundwater). 	Describe site specific impacts of potential inundation on threatened REs, such as Brigalow. Include figures which show the areas of prolonged inundation superimposed over existing REs.	
0.10	Chapter 12 - Ecology	<p>Issue: Offset strategy not provided Section 12.9 Offsets</p> <p>Residual long-term impacts on state significant biodiversity values (SSBV) resulting from direct subsidence impacts and managing subsidence (e.g. remedial works; as outlined in section 12.8.10) within remnant REs and remnant riparian areas of Springsure Creek and other tributaries are not adequately addressed. For example, the EIS outlined that the current longwall orientation would result in longitudinal subsidence of 1.2 to 2.3 m of Springsure Creek and tributaries. The EIS acknowledges the presence of SSBVs within the project area (section 12.9.1.1), and according to the Queensland biodiversity offsets policy (BOP) the potential for residual impacts to those values would need to be assessed, avoided, mitigated or offset.</p>	Residual long-term impacts on state significant biodiversity values (SSBV) resulting from direct subsidence impacts and managing subsidence would need to be fully assessed (see comment made above). If mitigation of impacts would not be possible, an offsets strategy should be prepared, consistent with the BOP.	Chapter 12 Section 12.9 Offsets has been expanded to set out the process of developing, approving and implementing an offsets strategy, should such measures be found to be required.
0.11	Chapter 13 - Cultural Heritage	<p>Issue: Reference to Queensland Heritage Act 1992 missing P.13-4, Section 13.4 Non-Indigenous Historical Cultural Heritage</p> <p>Page 13-4 states "non-Indigenous cultural heritage sites and any development impacting these sites are subject to provisions of the Sustainable Planning Act 2009." However, development can also be assessed under the Queensland Heritage Act 1992 as an Exemption Certificate Approval.</p>	The Queensland Heritage Act 1992 as well as the Sustainable Planning Act 2009 must be acknowledged as potentially having a regulatory control of development on QHR sites.	Sentence amended to: "Indigenous and non-Indigenous cultural heritage sites and any development impacting these sites is subject to provisions of the Sustainable Planning Act 2009 (Qld) (SP Act), as well as the QH Act where the development is assessed as an exemption certificate approval."
0.12	Chapter 18 - EM Plan	<p>Issue: Potential expansion of coal processing plant P.18-20, Section 18.2.8.6 Product Processing</p> <p>The EM Plan states that "if the coal requires beneficiation [...] then a coal processing plant will be required to remove the coarser fraction</p>	<p>If the project would not require a coal processing plant, delete all references made in the EIS and in the EM Plan.</p> <p>If the proposed project would need to include a coal processing plant, environmental assessment provided in the EIS and EM Plan would need to be updated to include potential impacts on air, noise, dust, water,</p>	<p>SCC does not seek approval for a Coal Processing Plant (CPP). All references to CPP have been removed. The EIS has been amended throughout to state the scope of the project as follows:</p> <p>"All run of mine coal would be transported off site without the</p>

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		<p>of any dilution.”</p> <p>If the proposed project would require a coal processing plant, it must be reflected in the EIS and EM Plan. A full assessment of any potential impacts would be required. Little information has been provided in the EIS regarding a potential coal processing plant and no environmental assessments have been carried out.</p>	<p>ecology and other relevant environmental values due to the construction and operation of a coal processing plant.</p> <p>Also, the EM Plan should clearly outline that the project has the potential to expand to include a coal processing plant. The EIS and the EM Plan must clearly state if the current application be seeking approval for a coal processing plant. This ensures the EM Plan has scope to include this activity and that conditions can be provided as part of the environmental authority (EA).</p>	<p>need for benefaction. It is anticipated that benefaction would not be required. In the event that a Coal Processing Plant was required then approval for this component would be sought through an appropriate approval process.”</p>
0.13	Chapter 18 - EM Plan	<p>Issue: Information on proposed pipeline P.18-22, Section 18.3.3.4 Offsite Supply – Water Trading</p> <p>Last sentence in paragraph states provision of a pump station connecting pipeline to the project will be required. Insufficient information was provided in the EIS.</p>	<p>EIS should identify if the proposed pipeline is part of the Springsure Coal Mine Project. If a pipeline is required as part of the project, environmental assessment provided in the EIS and EM Plan would need to be updated to include possible impacts on air, noise, dust, water, ecology and other relevant environmental values. The EIS and the EM Plan must clearly state if the current initial application be seeking approval for a pipeline. This ensures the EM Plan has scope to include this activity and that conditions can be provided as part of the environmental authority (EA).</p>	<p>Approval for the water pipeline and auxiliary infrastructure is not sought through the EIS. Its approval will be sought via the Sustainable Planning Act and a separate approval process to the mine. Impacts of this are thus not presented in the EIS.</p>
0.14	Chapter 18 - EM Plan	<p>Issue: Rehabilitation schedule and criteria P.18-30, Section 18.3.13 Rehabilitation and Decommissioning</p> <p>The submitted EM Plan identifies progressive rehabilitation will be undertaken and identifies rehabilitation objectives and options. However, no specific rehabilitation criteria were provided.</p>	<p>The EM Plan must identify the rehabilitation schedule for the initial period of progressive rehabilitation, as well as specific rehabilitation criteria to meet the objectives already identified in the EIS and EM Plan.</p>	<p>The rehabilitation schedule will be as per the mine plan. Rehabilitation will be immediate and progressive following each longwall that is extracted and included as part of decommissioning works.</p>
0.15	Chapter 18 - EM Plan	<p>Issue: Commitments to manage potential residual long-term impacts from subsidence Section 18.5.7 – Subsidence, but also Section 12.8.10 – Subsidence Management</p> <p>The current orientation of the longwalls in the project description will result in longitudinal subsidence of Springsure Creek and tributaries, modelled to range from 1.2-2.3 m over the whole project area (appendix A4-2).</p> <p>As noted in the EIS, the project area is largely comprised of land whose natural values are compromised by clearing and land-use practices including irrigated and dry cropping and grazing. The mapped remnant riparian vegetation within the project area therefore provides habitat values (albeit degraded) which are limited within the project area and surrounding subregions.</p>	<p>Include in the SMF commitments to managing potential residual long-term impacts from subsidence on biodiversity.</p> <p>Any remedial works (as outlined in Section 12.8.10, Ecology report) or SMF commitments made in the EMP would need to ensure that impacts of subsidence on biodiversity values will not be worsened. For example, the SMPs could employ low impact rehabilitation or remedial methods (e.g. the use of smaller machinery).</p> <p>This would allow that impacts due to subsidence will not be aggravated. Where impacts on SSBV cannot be avoided, an offset strategy would need to be provided.</p>	<p>Subsidence Management Plans, Species Management Plans and Vegetation Management plans will be developed prior to construction and operations. These plans will be designed to maintain the ecological integrity of the individual areas which may be impacted. It should be noted that it is SCC's intent to improve vegetation communities where possible. This will be done in consultation with landowners, DNRM and EHP. Long-term management options and offsets will be detailed in the rehabilitation plan, periodically reviewed and revised over time as new information becomes available that alter the predicted impacts.</p>

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		The submitted EM Plan includes as control strategies (18.5.7.5) the development of subsidence management plans (SMP) as part of a subsidence management framework (SMF). However, no commitments to manage potential residual long-term impacts from subsidence are provided on SSBV or any biodiversity values.		
0.16	Chapter 18 - EM Plan	Issue: Missing ERAs P. 18-35, Section 18.3.15 Environmentally Relevant Activities (ERAs) This section identifies the potential ERAs that the project may trigger. The EM Plan may identify scope for potential ERAs for the project but should also confirm and be clear on which ERAs will be sought to be authorised.	ERAs to be included in the application for an EA should be identified clearly in the EM Plan including the proposed thresholds for each ERA.	SCC seeks approval for all ERAs listed in the EM Plan. Chapter 18 EM Plan Section 18.3.15 updated to state the project WILL require the listed ERAs rather than MAY.
0.17	Chapter 18 - EM Plan	Issue: PM10 instrumentation and monitoring P.18-44, Section 18.5.2 Air Quality – Existing air quality, 4th paragraph. It is considered by EHP that the recorded results from monitoring reported in the EIS are not representative of “baseline” conditions. The monitoring was undertaken using an EVM-3 monitor. The EVM-3 monitor is similar to a DustTrak monitor and does not have USEPA equivalency/certification for PM10 monitoring. As such there is some question over the reliability of the PM10 results. In addition, some 56mm of rainfall was recorded during the monitoring period. As such, background PM10 concentrations - particularly during dry conditions, or peak agricultural activities times may be somewhat different to those presented in the submitted EM Plan.	P.18-44 Section 18.5.2 Air Quality – Existing air quality, 4th paragraph. Monitoring instrumentation should have USEPA equivalency/certification for PM10 monitoring. Monitoring to establish background levels should be undertaken during representative conditions at the site.	Baseline conditions have been established through a combination of desk top reviews of existing information and 2 rounds of field surveys. The data are considered valid and representative of the Project area. The rainfall recorded during site sampling has been taken into account by the air quality study and the derivation of Project-specific baseline criteria. Given rainfall will have suppressed ambient dust concentrations, the use of samples collected during rainfall provide a conservative level of dust relative to a higher concentration that would have been recorded during drier weather.
0.18	Chapter 18 - EM Plan	Issue: Update reference P.18-56, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air – Table 18-14 Update reference to Australian standard AS2923:1987 for meteorological data with AS3580.14-2011 "Methods for sampling and analysis of ambient air.	Replace AS2923:1987 with AS3580.14-2011 "Methods for sampling and analysis of ambient air. Part 14: Meteorological monitoring for ambient air quality monitoring applications."	The EM plan has been updated to reference AS3580.14-2011 Methods for sampling and analysis of ambient air.

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0.19	Chapter 8 - Surface Water	Issue: Reference unclear P.8-43, Section 8.5.5.2 Erosion and Sedimentation Potential Reference to an EHP guideline values in last sentence of paragraph is unclear as to what guideline values these are and what reference these are taken from.	For clarification, a specific reference should be provided as to the EHP guideline values referred to.	Chapter 8 - Surface Water Section 8.5.5.2 has been updated to include reference to EHP guideline Watercourse Diversions-Central Queensland Mining Industry, Version 5. Text amended as follows: "...these values are provided in the EHP guideline Watercourse Diversions-Central Queensland Mining Industry, Version 5 and are summarised in Table -10".
0.20	Chapter 18 - EM Plan	Issue: Air sampler and method P.18-54, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B4) Proposed condition (B4) includes reference to Australian Standard AS3580.9.6. This standard relates to the use of a PM10 high volume sampler method. High volume samplers require that a filter be changed after each 24-hour sampling period. The sampler (and method) do not allow for real-time monitoring/reporting.	For compliance-approved, real-time monitoring, AS3580.9.8-2008 "Methods for sampling and analysis of ambient air.-method 9.8: Determination of suspended particulate matter-PM10 continuous direct mass measurement using a tapered element oscillating microbalance analyser" should be referenced.	SCC will undertake air quality compliance monitoring. Will be a combination of real time and dust deposition monitoring using approved monitors.
0.21	Chapter 18 - EM Plan	Issue: Air quality management plan P.18-54, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B6) Proposed condition (B6) - Air quality management plan - no timeframe for development and implementation is proposed	The Air quality management plan should be developed and approved before the project commences.	SCC will develop an Air Quality Management Plan (AQMP) prior to construction that will detail air quality objectives, potential impact management measures and reporting / adaptive response procedures.
0.22	Chapter 18 - EM Plan	Issue: Inconsistencies between B3 and B8 P.18-55, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B8) Proposed condition (B8) - the condition nominates PM10 only. This is not consistent with condition (B3).	Review inconsistency between condition B8 and B3.	There is no inconsistency: B3 relates to total particulates; B8 relates to PM10 only.
0.23	Chapter 18 - EM Plan	Issue: Location of air quality monitoring sites P.18-55, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Table 18-13 It would be useful to include a monitoring site which is upwind of the site in the direction of prevailing winds. Such a location could provide information about the particulate matter loads on winds approaching the mine. Those loads	Consideration should be given to the location of monitoring sites upwind of the prevailing winds.	The EM plan has been revised to include an upwind air quality monitoring station.

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		could then be subtracted from downwind locations to show the contribution from mining activities. This would also strengthen condition (B8) dot point 3.		
0.24	Chapter 3 - Description of the Project	Note: Incorrect reference Section 3.6.2 Building damage EHP has no jurisdiction on building damage.	Section 3.6.2 Building damage Delete reference to EHP in relation to jurisdiction on building damage.	Deleted.
0.25	Chapter 7 - Waste Management	Note: Script error P.7-23, Section 7.6.3.4 Off-site waste disposal, error in first paragraph, 5th line. Error script in reference to be corrected.	P.7-23 Section 7.6.3.4 Off-site waste disposal, error in first paragraph, 5th line "Their locations relative to the Project are represented in Table 7-5 and shown on Error! Reference source not found replace with relevant reference..."	This is a template error and has been amended in the document with the correct reference re-inserted and hyperlinked.
0.26	Appendix A4-10 Noise and Vibration Report	Appendix A4 – 10 Figure 2-2 Sensitive receptors Figure 2.2 does not have a scale.	Please insert a scale to Figure 2.2 and correct Figure Caption.	Scale and correct caption provided now on Figure 2-2 of Appendix A4-10

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0.02	Chapter 8 - Surface Water	Issue: Reference unclear P.8-43, Section 8.5.5.2 Erosion and Sedimentation Potential Reference to an EHP guideline values in last sentence of paragraph is unclear as to what guideline values these are and what reference these are taken from.	For clarification, a specific reference should be provided as to the EHP guideline values referred to.	Chapter 8 - Surface Water Section 8.5.5.2 has been updated to include reference to EHP guideline Watercourse Diversions-Central Queensland Mining Industry, Version 5. Text amended as follows: "...these values are provided in the EHP guideline Watercourse Diversions-Central Queensland Mining Industry, Version 5 and are summarised in Table -10".
0.03	Chapter 10 - Air Quality	Issue: Air emissions inventory for offsite activities Chapter 10 Air Quality and Appendix A4-8 Air Quality Report The terms of reference (TOR) requirement (page 30) - air emissions inventory for off site activities: section 4.6.2 of the project TOR requires that the proponent "Provides a separate air emissions inventory of any offsite activities directly associated with the project, including fugitive emissions such as from rail or road transport of product or waste." Such an inventory does not appear in Chapter 10 Air Quality, or in the supporting Air Quality Report at Appendix A4-8.	A separate air emissions inventory of any offsite activities directly associated with the project, including fugitive emissions such as from rail or road transport of product or waste, should be provided.	The Air Quality technical report (Appendix A4-8) has been updated to include an off-site emissions inventory. It should be noted however that EIS is for the mine only. Impacts associated with the transport corridor will be addressed in a separate approvals process.
0.04	Chapter 10 - Air Quality Appendix A4-8 Air Quality Report	Issue: PM10 monitoring for compliance reporting P.10-34 Section 10.2.8.3 Monitoring and Complaint Register Air quality monitoring is to "... be undertaken using a real-time dust monitor such as the Protinus 1000. "so that "Real-time monitoring will allow air quality criteria to be immediately correlated with on-site activities..." The use of the Protinus 1000 (or the EVM-3 used to measure background PM10 concentrations) is not covered by an Australian Standard. As such, the monitor(s) could not be used for PM10 compliance reporting purposes.	That where PM10 monitoring is to be undertaken for compliance reporting purposes, a monitor that is approved for the purpose be nominated and used.	SCC will undertake air quality compliance monitoring. This will be a combination of real time and dust deposition monitoring using monitors that provide for the best environmental outcome, as agreed through consultation with EHP.

0.05 Chapter 11 - Noise	<p>Issue: Rating background noise levels Section 11.3.3, Table 11-2 Rating background noise levels</p> <p>In Table 11-2 of Section 11.3.3, the rating background noise levels are derived from the measurement made and shown in Appendix A4-10 for the period 1st to 8th December 2011. This data contains insect noise which has not been filtered.</p> <p>It is specified in the TOR that seasonal variation should be taken into account. No noise measurements were taken in the winter period. No mention was made of seasonal variation nor discussion of the expected variation in level for the Rating background noise.</p>	<p>Provide comments on the anticipated variation in level of the rating background noise levels and amend Table 11-2 accordingly.</p>	<p>Noise monitoring has been carried out as part of the supplementary EIS during May 2013 to capture winter noise levels. Both Chapter 11 - Noise and Appendix A4-10 have been updated to show these results.</p>
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0.06 Chapter 12 - Ecology	<p>Issue: NC Act requirements Section 12.2 Relevant Legislation and Policies and subsequent sections The EIS, in section 12.9.1, states: "It is not anticipated that permits will be required under the NC Act as the project will not directly impact on native vegetation or fauna species." This is incorrect as a permit under the NC would be required for any works that includes clearing of plants protected under the NC Act, and/or activities that may cause disturbance to animal breeding places, and/or and the taking of fauna under the Nature Conservation Act 1992 (NC Act) and section 332 of the Nature Conservation (Wildlife Management) Regulation 2006. For example, an authority under the NC Act is required for clearing of vegetation (e.g. for remedial works on subsidence cracks; as outlined in the EIS) or any other works that would potentially impact on vegetation which provides potential habitat for fauna, as it tampers with the breeding place of an animal.</p> <p>The proponent can apply to be registered for the generic least concern species management program through EHP Wildlife Management. For other EVNT, special least concern and colonial breeding species, a species management program would be required to be submitted to EHP Wildlife Management for consideration in relation to impacts to these species and appropriate mitigation measures where impacts can't be avoided and mitigated.</p>	<p>In Section 12.2 include a statement that outlines the requirements of the proponent to comply with the provisions of the Nature Conservation Act 1992 particularly in regard to:</p> <ul style="list-style-type: none">• the clearing of plants protected under the NC Act• a clearing permit or an exemption under the NC Act• activities that may cause disturbance (i.e. tamper – damage, destroy, mark, move or dig up) to animal breeding places• the taking of fauna. <p>Refer to the NC Act and section 332 of the Nature Conservation (Wildlife Management) Regulation 2006 for further details and definitions.</p> <p>These NC Act requirements would need to be also addressed in the EM Plan.</p>	<p>The statement has been inserted as requested into Chapter 12 - Ecology (Section 12.2) and Section 12.9.1. has been reworded to more closely align with the provisions of the NC Act.</p>
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0.07 Chapter 12 - Ecology	<p>Issue: Lack of field surveys Section 12.5.2 —Field Surveys It is noted that many of the field surveys were not carried within the project, but outside of the MLA. This issue is important as the mapping of regional ecosystems (REs) can not be made reliably from outside the MLA (i.e. the surrounding road networks) and potentially occurring listed threatened species could not be targeted (flora and fauna). These are requirements of the TOR.</p> <p>It is further noted, that the terrestrial fauna assessment (15.5.2.2) included three periods of surveying. An initial reconnaissance was primarily a planning exercise, but that which included bird surveying. Following was a 10 day survey 6-15 Dec 2011 hampered by inclement weather, and a 6 day survey 18-23 June 2012 which did not include Elliott trapping. It can be argued that the combination of inclement weather in the summer survey, the lack of trapping effort in the winter survey and the lack of fauna surveys across the project area limited the surveying success and subsequently the impact assessment as part of the EIS.</p>	<p>Additional RE assessment, as well as flora and fauna surveying will need to be carried out throughout the project area and especially along the riparian woodlands. These should be carried out in accordance with the requirements of the TOR, including ground-truthing REs, targeted listed species surveys, summer and winter surveys and a trapping program.</p>	<p>Additional ecological baseline surveys have been carried out as part of the supplementary EIS process during June 2013. All properties within MLA 70486 have now been accessed at least once for the purposes of baseline studies. The findings of the additional 2013 ecology surveys are reported in an amended Chapter 12 - Ecology and Technical Appendices A4-10 and A4-11.</p>
0.08 Chapter 12 - Ecology	<p>Issue: Hydrological flow P.12-22, Section 12.6 Existing Environmental Values The EIS states “The closest wetland protection area is located 2 km downstream from the project area along Springsure Creek” but no information on any changes that may occur to hydrological flows due to subsidence has been provided that demonstrates that the wetland of high ecological significance can maintain ecological functions before, during and after mine operation.</p>	<p>Recommendation: The project design and any changes to hydrological flows should be designed and managed to ensure that the wetland of high ecological significance can maintain ecological functions before, during and after mine operation. An impact assessment would need to be carried out which would state how potential impacts would be avoided, mitigated or offset.</p>	<p>Offsets for potential impacts on downstream vegetation communities are now included within the Biodiversity Offsets Strategy in set out in Chapter 12 - Ecology (section 12.9)</p>

0.09 Chapter 12 - Ecology	<p>Issue: Potential impacts and mitigation of subsided areas Page 12-92, Section 12.8.10 - Subsidence Management</p> <p>This section of the EIS (and EM Plan) does not address the possible physical impacts of subsidence on the land which may impact indirectly or directly on ecological values (aquatic and terrestrial flora and fauna). Issues not discussed, include:</p> <ul style="list-style-type: none"> • Lowering of bed and banks • Creation of in-stream waterholes • Changes to local drainage patterns • Incision processes • Stream widening • Erosion • Tension cracking through both shallow and deeper underlying strata, (including aquifers if applicable, if not applicable state so) • Root shear and loss of riparian vegetation in areas of deep subsidence • Impacts to vegetation due to prolonged inundation • Changes to water quality (surface water and groundwater). 	<p>Include in the EIS and EM Plan sufficient information on the likely impacts of subsidence including changes on watercourses/drainage lines which may have direct or indirect impacts on aquatic and terrestrial flora and fauna.</p> <p>As a minimum, the EIS should assess the potential site specific impacts of:</p> <ul style="list-style-type: none"> • Lowering of bed and banks • Creation of in-stream waterholes • Changes to local drainage patterns • Incision processes • Stream widening • Erosion • Tension cracking through both shallow and deeper underlying strata, (including aquifers if applicable, if not applicable state so) • Root shear and loss of riparian vegetation in areas of deep subsidence • Impacts to vegetation due to prolonged inundation • Changes to water quality (surface water and groundwater) <p>Describe site specific impacts of potential inundation on threatened REs, such as Brigalow. Include figures which show the areas of prolonged inundation superimposed over existing REs.</p>	<p>Within Chapter 12 - Ecology, Section 12-7 (NB Table 12-19 Potential impacts to ecological values) and Section 12-8 have been updated to address ecological impacts as a result of watercourse subsidence. This is based on the physical impacts discussed in Chapter 8 Surface Water. These physical impacts will be managed according to DNRM's Central Queensland Mining Industry Guideline for watercourse subsidence.</p>
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0.10 Chapter 12 - Ecology	<p>Issue: Offset strategy not provided Section 12.9 Offsets</p> <p>Residual long-term impacts on state significant biodiversity values (SSBV) resulting from direct subsidence impacts and managing subsidence (e.g. remedial works; as outlined in section 12.8.10) within remnant REs and remnant riparian areas of Springsure Creek and other tributaries are not adequately addressed. For example, the EIS outlined that the current longwall orientation would result in longitudinal subsidence of 1.2 to 2.3 m of Springsure Creek and tributaries. The EIS acknowledges the presence of SSBVs within the project area (section 12.9.1.1), and according to the Queensland biodiversity offsets policy (BOP) the potential for residual impacts to those values would need to be assessed, avoided, mitigated or offset.</p>	<p>Residual long-term impacts on state significant biodiversity values (SSBV) resulting from direct subsidence impacts and managing subsidence would need to be fully assessed (see comment made above). If mitigation of impacts would not be possible, an offsets strategy should be prepared, consistent with the BOP.</p>	<p>Chapter 12 Section 12.9 Offsets has been expanded to set out the process of developing, approving and implementing an offsets strategy, should such measures be found to be required.</p>
0.11 Chapter 13 - Cultural Heritage	<p>Issue: Reference to Queensland Heritage Act 1992 missing P.13-4, Section 13.4 Non-Indigenous Historical Cultural Heritage</p> <p>Page 13-4 states “non-Indigenous cultural heritage sites and any development impacting these sites are subject to provisions of the Sustainable Planning Act 2009.” However, development can also be assessed under the Queensland Heritage Act 1992 as an Exemption Certificate Approval.</p>	<p>The Queensland Heritage Act 1992 as well as the Sustainable Planning Act 2009 must be acknowledged as potentially having a regulatory control of development on QHR sites.</p>	<p>Sentence amended to: "Indigenous and non-Indigenous cultural heritage sites and any development impacting these sites is subject to provisions of the Sustainable Planning Act 2009 (Qld) (SP Act), as well as the QH Act where the development is assessed as an exemption certificate approval."</p>

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<p>0.12 Chapter 18 - EM Plan</p>	<p>Issue: Potential expansion of coal processing plant P.18-20, Section 18.2.8.6 Product Processing The EM Plan states that “if the coal requires beneficiation [...] then a coal processing plant will be required to remove the coarser fraction of any dilution.”</p> <p>If the proposed project would require a coal processing plant, it must be reflected in the EIS and EM Plan. A full assessment of any potential impacts would be required. Little information has been provided in the EIS regarding a potential coal processing plant and no environmental assessments have been carried out.</p>	<p>If the project would not require a coal processing plant, delete all references made in the EIS and in the EM Plan.</p> <p>If the proposed project would need to include a coal processing plant, environmental assessment provided in the EIS and EM Plan would need to be updated to include potential impacts on air, noise, dust, water, ecology and other relevant environmental values due to the construction and operation of a coal processing plant.</p> <p>Also, the EM Plan should clearly outline that the project has the potential to expand to include a coal processing plant. The EIS and the EM Plan must clearly state if the current application be seeking approval for a coal processing plant. This ensures the EM Plan has scope to include this activity and that conditions can be provided as part of the environmental authority (EA).</p>	<p>SCC does not seek approval for a Coal Processing Plant (CPP). All references to CPP have been removed. The EIS has been amended throughout to state the scope of the project as follows:</p> <p>"All run of mine coal would be transported off site without the need for benefaction. It is anticipated that benefaction would not be required. In the event that a Coal Processing Plant was required then approval for this component would be sought through an appropriate approval process."</p>
<p>0.13 Chapter 18 - EM Plan</p>	<p>Issue: Information on proposed pipeline P.18-22, Section 18.3.3.4 Offsite Supply – Water Trading Last sentence in paragraph states provision of a pump station connecting pipeline to the project will be required. Insufficient information was provided in the EIS.</p>	<p>EIS should identify if the proposed pipeline is part of the Springsure Coal Mine Project. If a pipeline is required as part of the project, environmental assessment provided in the EIS and EM Plan would need to be updated to include possible impacts on air, noise, dust, water, ecology and other relevant environmental values. The EIS and the EM Plan must clearly state if the current initial application be seeking approval for a pipeline. This ensures the EM Plan has scope to include this activity and that conditions can be provided as part of the environmental authority (EA).</p>	<p>Approval for the water pipeline and auxiliary infrastructure is not sought through the EIS. Its approval will be sought via the Sustainable Planning Act and a separate approval process to the mine. Impacts of this are thus not presented in the EIS.</p>
<p>0.14 Chapter 18 - EM Plan</p>	<p>Issue: Rehabilitation schedule and criteria P.18-30, Section 18.3.13 Rehabilitation and Decommissioning The submitted EM Plan identifies progressive rehabilitation will be undertaken and identifies rehabilitation objectives and options. However, no specific rehabilitation criteria were provided.</p>	<p>The EM Plan must identify the rehabilitation schedule for the initial period of progressive rehabilitation, as well as specific rehabilitation criteria to meet the objectives already identified in the EIS and EM Plan.</p>	<p>The rehabilitation schedule will be as per the mine plan. Rehabilitation will be immediate and progressive following each longwall that is extracted and included as part of decommissioning works.</p>

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0.15 Chapter 18 - EM Plan	<p>Issue: Commitments to manage potential residual long-term impacts from subsidence Section 18.5.7 – Subsidence, but also Section 12.8.10 – Subsidence Management</p> <p>The current orientation of the longwalls in the project description will result in longitudinal subsidence of Springsure Creek and tributaries, modelled to range from 1.2-2.3 m over the whole project area (appendix A4-2). As noted in the EIS, the project area is largely comprised of land whose natural values are compromised by clearing and land-use practices including irrigated and dry cropping and grazing. The mapped remnant riparian vegetation within the project area therefore provides habitat values (albeit degraded) which are limited within the project area and surrounding subregions. The submitted EM Plan includes as control strategies (18.5.7.5) the development of subsidence management plans (SMP) as part of a subsidence management framework (SMF). However, no commitments to manage potential residual long-term impacts from subsidence are provided on SSBV or any biodiversity values.</p>	<p>Include in the SMF commitments to managing potential residual long-term impacts from subsidence on biodiversity. Any remedial works (as outlined in Section 12.8.10, Ecology report) or SMF commitments made in the EMP would need to ensure that impacts of subsidence on biodiversity values will not be worsened. For example, the SMPs could employ low impact rehabilitation or remedial methods (e.g. the use of smaller machinery). This would allow that impacts due to subsidence will not be aggravated. Where impacts on SSBV can not be avoided, an offset strategy would need to be provided.</p>	<p>Subsidence Management Plans, Species Management Plans and Vegetation Management plans will be developed prior to construction and operations. These plans will be designed to maintain the ecological integrity of the individual areas which may be impacted. It should be noted that it is SCC's intent to improve vegetation communities where possible. This will be done in consultation with landowners, DNRM and EHP. Long-term management options and offsets will be detailed in the rehabilitation plan, periodically reviewed and revised over time as new information becomes available that alter the predicted impacts.</p>
0.16 Chapter 18 - EM Plan	<p>Issue: Missing ERAs</p> <p>P. 18-35, Section 18.3.15 Environmentally Relevant Activities (ERAs)</p> <p>This section identifies the potential ERAs that the project may trigger. The EM Plan may identify scope for potential ERAs for the project but should also confirm and be clear on which ERAs will be sought to be authorised.</p>	<p>ERAs to be included in the application for an EA should be identified clearly in the EM Plan including the proposed thresholds for each ERA.</p>	<p>SCC seeks approval for all ERAs listed in the EM Plan.</p> <p>Chapter 18 EM Plan Section 18.3.15 updated to state the project WILL require the listed ERAs rather than MAY.</p>

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0.17 Chapter 18 - EM Plan	<p>Issue: PM10 instrumentation and monitoring P.18-44, Section 18.5.2 Air Quality – Existing air quality, 4th paragraph.</p> <p>It is considered by EHP that the recorded results from monitoring reported in the EIS are not representative of “baseline” conditions. The monitoring was undertaken using an EVM-3 monitor. The EVM-3 monitor is similar to a DustTrak monitor and does not have USEPA equivalency/certification for PM10 monitoring. As such there is some question over the reliability of the PM10 results.</p> <p>In addition, some 56mm of rainfall was recorded during the monitoring period. As such, background PM10 concentrations - particularly during dry conditions, or peak agricultural activities times may be somewhat different to those presented in the submitted EM Plan.</p>	<p>P.18-44 Section 18.5.2 Air Quality – Existing air quality, 4th paragraph.</p> <p>Monitoring instrumentation should have USEPA equivalency/certification for PM10 monitoring. Monitoring to establish background levels should be undertaken during representative conditions at the site.</p>	<p>Baseline conditions have been established through a combination of desk top reviews of existing information and 2 rounds of field surveys. The data are considered valid and representative of the Project area. The rainfall recorded during site sampling has been taken into account by the air quality study and the derivation of Project-specific baseline criteria. Given rainfall will have suppressed ambient dust concentrations, the use of samples collected during rainfall provide a conservative level of dust relative to a higher concentration that would have been recorded during drier weather.</p>
0.18 Chapter 18 - EM Plan	<p>Issue: Update reference P.18-56, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air – Table 18-14</p> <p>Update reference to Australian standard AS2923:1987 for meteorological data with AS3580.14-2011 "Methods for sampling and analysis of ambient air.</p>	<p>Replace AS2923:1987 with AS3580.14-2011 "Methods for sampling and analysis of ambient air. Part 14: Meteorological monitoring for ambient air quality monitoring applications."</p>	<p>The EM plan has been updated to reference AS3580.14-2011 Methods for sampling and analysis of ambient air.</p>

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0.19 Chapter 18 - EM Plan	<p>Issue: Conditions under the NC Act Section 18.5.9 - Ecology</p> <p>The EM Plan does not state conditions relating impacts on native flora and fauna protected under the Nature Conservation Act 1992 (refer to comment made earlier on).</p>	<p>Include a new heading of the EM Plan with the following conditions:</p> <p>“Conditions: Impacts on Native Flora and Fauna</p> <p>The proponent must comply with the provisions of the Nature Conservation Act 1992 particularly in regard to the following:</p> <ol style="list-style-type: none"> 1. Where there is a requirement for clearing of plants protected under the Nature Conservation Act 1992: <ol style="list-style-type: none"> a. Clearing of protected plants must only occur in accordance with a clearing permit or an exemption under the Nature Conservation Act 1992. b. Offsets must be provided for the permanent loss (take) of near threatened, vulnerable and endangered plants to achieve an equivalent or better overall outcome at a regional scale in accordance with the Queensland Biodiversity Offset Policy 2011. 2. Where the activities of the proponent may cause disturbance (i.e. tamper – damage, destroy, mark, move or dig up) to animal breeding places the prior approval of EHP must be obtained. It is unlawful to tamper with the breeding place of a protected animal without authorisation. Section 332(4) of the Nature Conservation (Wildlife Management) Regulation 2006 identifies that the removal of a breeding place may occur under an approved species management program (SMP) or a damage mitigation permit (DMP). The definition of breeding place is ‘a bower, burrow, cave, hollow, nest or other thing that is commonly used by the animal to incubate or rear the animal’s offspring’. 3. Where there is a need to take fauna, the prior approval of EHP must be obtained. In relation to an animal – ‘take’ includes to hunt, shoot, wound, kill, skin, poison, net, snare, spear, trap, catch, dredge for, bring ashore or – aboard a boat – pursue, lure, injure or harm the animal; or attempt to do any of these acts. 4. The proponent should act in accordance with the management principles outlined in Section 73 Nature Conservation Act 1992, especially s73(a)(i) which states: “...protected wildlife is to be managed to conserve the wildlife and its values and, in particular to ensure the survival and natural development of the wildlife in the wild.” 	<p>The EM Plan (Section 18.5.9 - Ecology) has been updated to include this statement as requested</p>
0.20 Chapter 18 - EM Plan	<p>Issue: Air sampler and method P.18-54, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air – Condition (B4)</p> <p>Proposed condition (B4) includes reference to Australian Standard AS3580.9.6. This standard relates to the use of a PM10 high volume sampler method. High volume samplers require that a filter be changed after each 24-hour sampling period. The sampler (and method) do not allow for real-time monitoring/reporting.</p>	<p>For compliance-approved, real-time monitoring, AS3580.9.8-2008 "Methods for sampling and analysis of ambient air.-method 9.8: Determination of suspended particulate matter-PM10 continuous direct mass measurement using a tapered element oscillating microbalance analyser" should be referenced.</p>	<p>SCC will undertake air quality compliance monitoring. Will be a combination of real time and dust deposition monitoring using approved monitors.</p>

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0.21	Chapter 18 - EM Plan	Issue: Air quality management plan P.18-54, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B6) Proposed condition (B6) - Air quality management plan - no timeframe for development and implementation is proposed	The Air quality management plan should be developed and approved before the project commences.	SCC will develop an Air Quality Management Plan (AQMP) prior to construction that will detail air quality objectives, potential impact management measures and reporting / adaptive response procedures.
0.22	Chapter 18 - EM Plan	Issue: Inconsistencies between B3 and B8 P.18-55, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air - Condition (B8) Proposed condition (B8) - the condition nominates PM10 only. This is not consistent with condition (B3).	Review inconsistency between condition B8 and B3.	There is no inconsistency: B3 relates to total particulates; B8 relates to PM10 only.
0.23	Chapter 18 - EM Plan	Issue: Location of air quality monitoring sites P.18-55, Section 18.5.2.11 Proposed Environmental Authority conditions: Schedule H - Air – Table 18-13 It would be useful to include a monitoring site which is upwind of the site in the direction of prevailing winds. Such a location could provide information about the particulate matter loads on winds approaching the mine. Those loads could then be subtracted from downwind locations to show the contribution from mining activities. This would also strengthen condition (B8) dot point 3.	Consideration should be given to the location of monitoring sites upwind of the prevailing winds.	The EM plan has been revised to include an upwind air quality monitoring station.
0.24	Chapter 3 - Description of the Project	Note: Incorrect reference Section 3.6.2 Building damage EHP has no jurisdiction on building damage.	Section 3.6.2 Building damage Delete reference to EHP in relation to jurisdiction on building damage.	Deleted.
0.25	Chapter 7 - Waste Management	Note: Script error P.7-23, Section 7.6.3.4 Off-site waste disposal, error in first paragraph, 5th line. Error script in reference to be corrected.	P.7-23 Section 7.6.3.4 Off-site waste disposal, error in first paragraph, 5th line “Their locations relative to the Project are represented in Table 7-5 and shown on Error! Reference source not found replace with relevant reference...”	This is a template error and has been amended in the document with the correct reference re-inserted and hyperlinked.

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0.26	Appendix A4-10 Noise and Vibration Report	Appendix A4 – 10 Figure 2-2 Sensitive receptors Figure 2.2 does not have a scale.	Please insert a scale to Figure 2.2 and correct Figure Caption.	Scale and correct caption provided now on Figure 2-2 of Appendix A4-10
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