

# Springsure Creek Coal Mine Project

## Response to comments on final EIS



### Department of Agriculture, Fisheries and Forestry

Issue	Topic	Comment	Recommendation / Suggestion	Response
1	Chapter 5 - Land	<p><b>1. (s5.4.6, p5-12)</b> In response to DAFF's EIS submission no 18.16, the information in this section contains generalised descriptions of farm practices in the Central Highlands, but does not provide specific data on the Project area (RS)</p> <p><b>2. (s5.7.5, p5-76)</b> The application of appropriate legislation where chemical control is the proposed mitigation measure for weeds. Herbicides such as flupropanate used to control invasive grasses like tussock, Paramatta, Giants rats tail, Chilean needle and African lovegrass, have long withholding periods and put obligations on landholders to move livestock to clean feed prior to slaughter. (BQ)</p>	<p>1. As previously requested, the EIS should address the full requirements if the 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 agricultural activities.</p> <p>2. The EIS should ensure that the Project is compliant with both the <i>Chemical Usage (Agricultural and Veterinary) Control Act 1988</i> (use controls) and <i>Agricultural Chemicals Distribution Controls Act 1966</i> (licencing controls) to ensure that use of agricultural chemicals or other industrial chemicals does not have an adverse impact on human health, trade or the environment through contamination of agricultural produce. <b>Note:</b> It is essential that landholders are involved in consultation on uses of herbicides to ensure that appropriate risk management actions can be implemented where stock could be exposed.</p>	<p>1. <b>Chapter 5 Land s.5.4.7</b> was added to the final EIS to provide an overview of agricultural practices within the Project area itself. This was based on information provided by Custom Farm Management Pty Ltd. Specific data on activities on each property within the Project area would require the landholders' disclosure of this commercially sensitive information which was not available at the time of the EIS (and indeed is perhaps not appropriate for publication within the EIS).</p> <p><b>SS.4.2</b> of the EIS was updated to provide an agricultural impact assessment based on requirements of the TOR and the information presented in <b>s.5.4.7</b>.</p> <p>SCC is working with all affected landholders to manage the impacts of mining on agricultural activities. Please refer to our responses to DAFF's additional comments on separate sheet for additional information.</p>
2	Chapter 7 – Waste Management	<p><b>Table 7-2, p7-10</b> With reference to the management methods for mulching of green waste, this section does not mention plant species that are declared under the <i>Land Protection (Pest and Stock Route Management) Act 2000</i> or declared species under local government laws.</p>	<p>Species that are declared under the <i>Land Protection (Pest and Stock Route Management) Act 2000</i> or declared species under local government laws need to be identified in the survey to guide best practice management and disposal of weeds.</p>	<p><b>Chapter 7 Waste, Table 7-2, p7-10</b> and <b>Chapter 18 EM Plan, Table 18-34, p125</b> has been amended to include the reference highlighted in yellow below.</p> <p>"Mulching of waste vegetation/timber by reuse on-site during rehabilitation Disposal of weeds by a licensed contractor.</p> <p>A weed survey will be undertaken to identify and (if found) manage the site of any Weeds of National Significance (WoNS), including those declared under the <i>Land Protection (Pest and Stock Route Management) Act 2000</i> or <i>Central Highlands Regional Council bylaws</i>. The Pest and Weed Management Plan will also reflect this and will guide the management and disposal of weeds onsite."</p>
3	Chapter 8 – Surface Water	<p><b>s8.3.2, p8-6</b> Further to the response to DAFF's EIS submission no.18.04 and 18.05, the EIS does not satisfy DAFF's recommendation that consultation between the proponent and DAFF occur for all waterway works that might affect fish movement.</p>	<p>The EIS should commit the Project to consult DAFF on all matters concerning potential impacts to fish movements including waterway barrier works, irrespective of their location with respect to the MLA.</p>	<p>SCC commits that for areas outside of the MLA area, a waterway barrier works approval would be sought to build any structure across a freshwater waterway whether it is temporary or permanent.</p> <p>For areas within the MLA, a waterway barrier works approval would not be required. Works would, however, be required to follow DNRM's <i>Guideline Activities in a Watercourse, lake or spring associated with a resource activity or mining operations</i>.</p>

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				<p>SCC acknowledges that the DNRM Guideline does not contain any specific measures relating to managing work around fish. Thus, in order to mitigate any potential impacts on fish passage within the MLA, SCC commits that any waterway crossings over 3<sup>rd</sup> order streams and above be constructed in consultation with DAFF.</p> <p>The following additional condition has been added to <b>Chapter 18 EM Plan, s.18.5.4</b> (and also added as a clear mitigation measure to <b>Chapter 12 Ecology, s.12.7.2</b> impacts on habitat connectivity and water flows).</p> <p><b>Interference with Waterways</b>                      (D25) Any interference with waterways must be undertaken in accordance with the Department of Natural Resources and Mines Guideline – Activities in a watercourse, lake or spring associated with mining activities. Any construction of a crossing over 3<sup>rd</sup> order streams and above will be carried out following consultation with the Department of Agriculture, Fisheries and Forestry.</p>
4	Chapter 12 - Ecology	<p>1. <b>s12.6, p12-91</b> The Project area may be subject to aerial spraying for the management of migratory and spur-throated locusts.</p> <p>2. <b>12.7.7, p12-105 &amp; s14.6.4, p14-39</b> The EIS does not refer to the possible application of the Plant Protection Act 1989. For example, the whole QLD is a pest quarantine area for grape phylloxera and the Project site is located in a grape growing area. The Project also transverses the Special Control Zone (which is designated as phylloxera exclusion zone). For further information refer to – <a href="http://www.daff.qld.gov.au/4790_20983.htm#Grape">http://www.daff.qld.gov.au/4790_20983.htm#Grape</a>.</p>	<p>1. The EIS should acknowledge that the Project area might be subject to the control of locusts, which could include aerial spraying. Any process should be developed in consultation with state and local authorities.</p> <p>2. No immediate issues are foreseen, however there is the possibility that machinery contaminated with plant pests (e.g. insects) or disease (e.g. fungi) could move to, or from, sensitive zones. While it is unlikely that plant and machinery has been in contact with grape vines, general biosecurity awareness of plant risks among 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 – <a href="http://www.daff.qld.gov.au/documents/Biosecurity_MovingPlantsAndPlantProducts/IA_4.6.pdf">http://www.daff.qld.gov.au/documents/Biosecurity_MovingPlantsAndPlantProducts/IA_4.6.pdf</a></p>	<p>1. <b>Section 12.7.7 p.106</b> of the <b>Ecology chapter</b> has been updated to include specific mention of spur throated locusts as a potential pest and that any control measures for pest locusts will be developed in consultation with DAFF.</p> <p>“Pest and weeds, including spur-throated locusts (<i>Austracris guttulosa</i>), pose one of the most significant threats to flora and fauna within the Study area...</p> <p>...Any control measures for pest locusts would be developed in consultation with DAFF.”</p> <p>These changes are mirrored in <b>chapter 18 EM Plan</b>.</p> <p>2. The final EIS sets out the provisions of the <i>Plant Protection Act 1989</i> in <b>Chapter 12 Ecology, s.12.2.6, p12-5</b>.</p> <p><b>Chapter 18 EM Plan, s.18.5.8, p18-214</b> has been amended with to clarify SCC’s commitment to pest and weed management in accordance with all state, regional and local priorities (refer text highlighted below for changes) and is thus inclusive of all relevant Acts and policies. The remainder of this section is also provided below and demonstrate additional measures such as vehicle wash down and workforce training.</p> <p>“This [Weed and Pest Management] Plan will be developed and</p>

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				<p>implemented prior to commencement of construction through consultation with the Department of Agriculture, Fisheries and Forestry (DAFF), and managed in accordance with the requirements of state, regional and local pest and weed priorities. The Weed and Pest Management Plan will include the following measures:</p> <ul style="list-style-type: none"> <li>▪ Implementation of sediment control mechanisms to minimise the risk of weed seed washing into waterways;</li> <li>▪ Implement control strategies outlined in DAFF weed and pest animal fact sheets and other relevant state and local government biosecurity management strategies...”</li> <li>▪ Training to staff and contractors to identify priority weeds, including those identified as priorities in the CHRC area.</li> <li>▪ All machinery brought to site or leaving site for other areas must be certified weed free, to prevent the import and export of weeds;</li> <li>▪ An assessment will be undertaken of weeds with local and regional priorities. Management of these weeds will be incorporated into the overall Weed and Pest Management Plan;</li> <li>▪ Pre-construction weed mapping should be undertaken to accurately determine the extent of weeds and pests, including weeds of local and regional priority;</li> <li>▪ Vehicle wash down procedures;</li> <li>▪ Minimise the use of off-road vehicle movements;</li> <li>▪ Onsite waste disposal strategies (particularly for food wastes) to be employed that will not encourage the presence of pest fauna;</li> <li>▪ Strategies for the storage of construction and operation materials/equipment to be employed that will not encourage the presence of resident pest fauna;</li> <li>▪ Regular onsite inspections of site infrastructure/equipment for resident pest fauna and establishment of register for pest sightings; and</li> <li>▪ Monitoring and weed and pest inspections particularly in responses to reported outbreaks or from complaints or</li> </ul>

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				<p>adjacent property owners.”</p> <p>This commitment has also been carried through to <b>s.18.5.8.7, p180-218</b> as a proposed EA condition:</p> <p>(K2) The Authority holder will prepare and submit a Pest and Weed Management Plan to the Administering Authority for approval prior to the commencement of construction. <b>This Plan will align with state, regional and local government weed and pest animal priorities.</b></p> <p>These updates have also been mirrored in <b>Chapter 12 Ecology, s.12.7.7.</b></p>
5	Chapter 16 - Economic	<p><b>1. (c16)</b> In response to DAFF’s EIS submission no. 18.22, the EIS is relying on the Agricultural Research Co-existence Committee to gather and provide relevant information about impacts on agricultural production. The delivery of this work should occur prior to Project’s impacts occurring. (RS &amp; PIF)</p> <p><b>2. s16.7.7.1, p16-34</b> The cumulative impacts that the broader project (that is, the mine and the train load out facility and transport and infrastructure corridor) needs to be examined with regard to the totality of potential impacts on existing agricultural land uses and business enterprises (i.e. productivity and yields, farming systems, cost structures and economic returns). (RS &amp; PIF)</p> <p><b>3. s16.7.7.1, p16-34</b> The EIS references co-existence between agriculture and mining activities but is silent on how this will be formally managed and delivered for the benefit of affected landholders. The Proponent is providing a process via the Agricultural Co-existence Research Committee by which rehabilitation and productivity enhancement measures could be developed, however greater commitment to actions in this regard is sought. (RS)</p>	<p>1. As previously requested, the Project should determine or provide for an estimate of the costs and value of agricultural 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.</p> <p>2. As a demonstration of the Proponents commitment to co-existence between agriculture and mining, the cumulative impacts should be considered on a whole of project basis, not on a separate project components basis, as is the current approach. Without this undertaking, the EIS assessment and mitigation of impacts to potential affected agricultural land uses and business enterprises will remain incomplete. <b>Note:</b> This should be cross referenced with an update Chapter 20 – <i>Key Commitments</i>.</p> <p>3.1 The EIS should recognise the important role of Agricultural Management Plan and should commit to finalising these quickly with all affected landholders.</p> <p>3.2 The EIS should commit to detailed planning for the rehabilitation of affected land, including addressing subsidence (including earthworks and soil renovation procedures), the infrastructure to control runoff on dryland area and distribute water to irrigated areas and the agronomic approaches that will be adopted to improve agricultural productivity. The Agricultural Management Plans should contain measures to ensure that productivity and economic returns are maintained over the long term. These Plans would also contain alternative strategies should the measures proposed to restore land and maintain productivity are not successful.</p>	<p>1. Please refer to our response to DAFF’s additional comments on separate sheet for information on managing impacts on productivity.</p> <p>2. Impact assessment studies in support of the proposed infrastructure corridor and train load out facility are already underway and include consideration of potentially cumulative impacts.</p> <p>This commitment has been added to <b>Chapter 20 Key Commitments</b>.</p>

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			<p><b>Notes:</b></p> <p>A. This should be cross referenced with an updated Chapter 20 – <i>Key Commitments</i></p> <p>B. To support the development of Agricultural Management Plan, the EIS should provide updated subsidence modelling for all affected areas, including modelling of all affected agricultural areas outside of the MLA.</p>	<p>B. Subsidence modelling and stream hydrology &amp; flow modelling have been updated based on the latest MLA area. The results of these have been added into <b>Chapter 5 Land, s5.5</b> and <b>Chapter 8 Surface Water, 8.5</b>.</p> <p><u>No subsidence is predicted to occur outside of the MLA.</u></p>
6	Chapter 18 – EM Plan	<p><b>s18.5.8, p18-214</b></p> <p>With reference to the statement:</p> <p><i>“This Plan will be developed and implemented prior to commencement of construction through consultation with the Department of Agriculture, Fisheries and Forestry (DAFF), and managed in accordance with the requirements of the LP Act.”</i></p>	<p>1.1 The EIS should ensure that a weed and pest animal management plan be developed consistent with state and local pest and weed priorities.</p> <p>1.2 In addition to state and regional priorities, this plan should align with local government weed and pest animal priorities.</p>	<p>Please refer to our response to issue #4 above for reply and additional commitments made to EIS in regard to weed and pest management.</p>

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### Department of Natural Resources and Mines

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1	General	<p>Firstly it should be noted that in the document provided by Bandanna Energy, 'Response to Submissions to EIS' the responses provided in relation to comments made by DNRM on groundwater related issues were in places poor and at times did not address the comment. However a review of the updated groundwater report often resulted in answers to the original comments being obtained.</p> <p>It is noted that Water Resource Australia Pty Ltd have reviewed the updated groundwater model and provided comment. Water Resource Australia has generally supported the quality of the modelling work carried out, with some qualifications. It is a positive step that Bandanna has arranged for this peer review of the groundwater model. The comments of Water Resource Australia, the updated model report and draft EMP have been reviewed by DNRM along with the proponent's responses referred to above. The more significant outstanding issues are noted below.</p>		Comments noted.
2	Chapter 9 - Groundwater	<p><b>Monitoring bores (Table 9-2 and Section 9.3.1.2, pg 9-5)</b></p> <p>It should be noted that in the course of the groundwater investigation work carried out as part of this EIS, nine monitoring or production bores were drilled. Of these bores strata details are supplied for two (SPR107C and SPR138) and construction details supplied for four bores in the original EIS. In the SEIS documents, basic construction details are supplied for the nine bores, but no additional strata details are provided.</p>	Strata details are required to be provided for the remaining seven bores.	Additional bore strata details have been added to Table 9-2.
3	Chapter 9 - Groundwater	<p><b>Section 9.5.4.3 – Calibrated Model (Page-9-77)</b></p> <p>In table 9-20 a vertical hydraulic conductivity (permeability) for the Rewan Formation of <math>1 \times 10^{-6}</math> m/day has been adopted. In determining this figure, references are provided for work carried out by AGE on the Ensham mine in 2006 and by Ausenco – Norwest (2012) in work carried out on a groundwater model for the northern Bowen Basin for Arrow Energy.</p> <p>However recent work carried out by AGE in 2013 for Minyango (Blackwater) suggest a vertical hydraulic conductivity for the Rewan of <math>5.4 \times 10^{-5}</math> m/day. Additionally recent work carried out in the southern Galilee Basin in the Alpha area has seen URS (2012) adopt a vertical hydraulic conductivity for the Rewan of <math>9 \times 10^{-5}</math> m/day for the Alpha/ Kevins Corner model and Heritage Computing (2013) adopt <math>9.3 \times 10^{-5}</math> m/day for the Galilee Coal</p>	It is recommended that a further model run/ sensitivity/ uncertainty analysis be carried out using an unfractured vertical hydraulic conductivity figure of $1 \times 10^{-4}$ m/day which would then be increased in fractured zones. This will then provide a more appropriate upper limit of potential impacts.	<p>A number of meetings and teleconferences have been held with Ashley Blakeley regarding this issue during the response period. As a result of this, additional information has been added to Chapter 9 Groundwater better justifying the conservative assumptions already included within the presented model.</p> <p>The uncertainty case for the worst case scenario of drawdown is based on several conservative assumptions, namely:</p> <ol style="list-style-type: none"> <li>1) the fracture zone extends above some areas of the mine extends into the Basalt by several 10s of meters which is consistent with the base case model and based on project team experience at Crinum and in the region.</li> <li>2) The thickness of the Rewan is assumed to have a uniform permeability of <math>1 \times 10^{-5}</math> m/day which when fractured increases to <math>1 \times 10^{-4}</math> and <math>5 \times 10^{-5}</math> in the lower and upper fractured zones.</li> </ol>

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		<p>Project model. These figures all relate to a formation not yet fractured by the effects of goafing.</p> <p>In the Springsure Creek model, in the lower fractured zone, an adjusted vertical hydraulic conductivity of <math>1 \times 10^{-5}</math> m/day is adopted, which is still considerably lower than the unfractured figures quoted above.</p> <p>In section 9.5.6.1 it is noted that the vertical hydraulic conductivity is one of a number of parameters to which drawdown predictions are sensitive. This is to be expected as the connection of the basalt aquifer to the dewatered coal measures is directly linked to the vertical hydraulic conductivity of the Rewan Formation which separates them.</p> <p>In sensitivity analysis carried out for Springsure Creek the unfractured Rewan vertical conductivity is increased to <math>1 \times 10^{-5}</math> m/day which is meant to represent a worst case scenario. This approach of sensitivity/ uncertainty testing is supported but again this figure is significantly lower than those quoted above from other mines in Central Queensland so it does not qualify as a worst case scenario.</p> <p>In the peer review carried by Water Resource Australia it was noted that while literature references and comparisons are required, it does not completely overcome the need for more site specific data and investigations. It was further noted that No packer tests or core permeability test results at site are provided in the report.</p> <p>The vertical hydraulic conductivity of the Rewan is probably the most important groundwater issue at this time as it directly dictates the predicted impact on the overlying basalt aquifer and its users.</p>		<p>3) The presence of weathered clay material recorded during geological studies at the based of the Rewan is not included in the modelling</p> <p>4) The modelling assumes that the entire fractured zones within the Rewan could facilitate upward movement of depressurisation front at rates proportional to conductivities of <math>1 \times 10^{-4}</math> and <math>5 \times 10^{-5}</math>.</p> <p>Taken together, the combination of conservative assumptions included in the model are judged to provide an appropriate upper limit of potential impacts and negate the need for modelling at <math>1 \times 10^{-4}</math>.</p> <p>However, and notwithstanding the above, whilst the scenario presented in the Groundwater Report is believed by SCC and our technical advisors to be the most likely case, the assessment of impacts and proposed mitigation measures are based on the worst case scenario (fracturing up to 200m) with a higher permeability (<math>1 \times 10^{-5}</math>). This approach was agreed with Ashley Blakeley on 9 August 2013 during telephone conversation and in email from Ashley to SCC on 13 August 2013 as the most appropriate way forward so long as recognition that SCC has assumed an unfractured Rewan vertical hydraulic conductivity of <math>1 \times 10^{-6}</math> m/day. Ashley has confirmed he supports the updated groundwater chapter in the EIS (refer email 13 August 2013 attached).</p>
4	Chapter 9 - Groundwater	<p><b>Section 9.5 – Groundwater Impact Assessment, (Page- 9-60)</b></p> <p>The groundwater model has been developed with no flow boundaries on most boundaries of the model. This means that with the exception of the north east corner of the model, groundwater cannot flow into or out of the model area.</p> <p>The peer review by Water Resource Australia identified the no flow model boundaries on much of the model as atypical of most modelling projects. Furthermore, they noted that the conceptualisation of the how the system operates, in justifying the no flow boundaries was <i>based upon data primarily sourced from local water table aquifers with very little data from the</i></p>	<p>In future updates of the model the suitability of existing model boundary conditions and application of recharge and evapotranspiration should be addressed to more accurately simulate local hydrogeological conditions.</p>	<p>Agreed. SCC proposes the text highlighted in yellow is included in the project's EA conditions (and has been added to the Chapter 18 EM Plan, p18-122).</p> <p>(condition D75) The Project 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. <b>Future updates of the model will include a review of the model's boundary conditions and application of recharge and evapotranspiration processes to stimulate local hydrogeological conditions.</b></p>

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		<p><i>deeper geologic units, in particular the coal seams.</i> The concerns about the lack of data in the deeper formations mirror those expressed by DNRM in response to the EIS.</p> <p>Water Resource Australia also raise concern about evapotranspiration being the primary source of outflow from the model.</p> <p>It would appear from the plots provided in Figure 9-37 using the limited historical data available that a combination of the model boundaries and application of recharge and evapotranspiration has resulted in the models inability to match the observed water level declines and rises caused by drought and high rainfall events.</p> <p>It is considered that more work will be required in relation to these issues in the future to refine the model but for now they are not considered critical.</p>		
5	Chapter 9 - Groundwater	<p><b>Section 9.3.3.3 - Geologic Structures (Page- 9-15)</b></p> <p>The following description of the Albinia Fault is provided:</p> <p><i>A northwest to southeast trending fault called the Albinia Fault traverses along the east of EPC891 (Xenith 2011, Resolve Geo 2011). No significant vertical displacement from one side of the fault to the other has been identified, although a sudden change in the thickness of the Aries 2 seam across the fault is observed. The location of Albinia Fault, as presented in Resolve Geo (2011), is shown in Figure 9-6. Other faults identified in the Project area shown in Figure 9-6 are interpreted to terminate in the basement and do not extend up into the Bandanna Formation (Xenith 2011). The Bandanna Formation and the sedimentary sequence above the Mantuan Formation, occurring approximately 300m below the Aries 2 seam, are interpreted to be notably free of faulting (Resolve Geo 2011).</i></p> <p>Figure 9-8 in the groundwater report appears to indicate that there is significant displacement in the Bandanna formation and the Triassic sediments with the fault extending up to ground level. It would appear that the figure contradicts the text.</p> <p>In section 9.3.6.3 it is stated:</p> <p><i>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</i></p>	<p>Clarification should be provided on the extent of faulting in regard to the Rewan Formation and its potential to effect existing modelled impact predictions.</p>	<p>Please refer to attached memo regarding faulting.</p>



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		<p><i>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.</i></p> <p>Given that the existence of a significant fault in the Rewan could compromise its integrity as an aquitard, there needs to be consistency on how this issue is reported. Is the Rewan Formation faulted or likely to be faulted or not?</p>		
6	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9. Environmental Management Plan, Control Strategies (Page-18-103)</b></p> <p>In this section it is stated:</p> <p><i>As drawdown depends on a range of factors, its impacts are best managed adaptively. Adaptive management involves monitoring groundwater impacts and, based on the severity of impacts, modify the mine plan as mining takes place such that impacts could be limited to within designated ranges. In the event impacts are detected, potential adaptation strategies 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.</i></p> <p>This information constitutes a discussion rather than a commitment. There is no discussion about what will trigger the adaptive management. How will trigger levels be developed? There is a commitment in section 18.5.4.11 to develop a groundwater management plan but it is not clear what will be in this plan. Will it include information relevant to adaptive management as discussed above?</p>	<p>The proponent must clearly articulate how the proposal of adaptive management will be developed and function.</p>	<p>Chapter 18 EM Plan, p 18-119 has been updated to better describe SCC’s commitments to groundwater monitoring and management. The proposed contents and scope of the groundwater monitoring and management plan has been set out in condition D71. Condition D72 sets out the process for monitoring drawdown based on trigger levels. Trigger levels are also proposed for changes to groundwater quality. Conditions D77-D79 then clearly set out SCC’s commitment to replace any bores affected by significant drawdown and replace affected supplies at all times.</p>
7	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9. Environmental Management Plan, Control Strategies (Page-18-103)</b></p> <p>The following is provided;</p> <p><i>Any landholder bores located in areas of significant drawdown which result in an inability or reduction in access to groundwater volumes may need to be deepened or replaced. This is in addition to any structural damage to bores occurring due to subsidence. In</i></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.</p>	<p>The four bores mentioned (RN57358, 57359, 57360 and 57361) are located within the “Springton” property is directly affected by the project, located partly within the MLA.</p> <p>Compensation agreements will be negotiated and entered into with all directly affected landholders in accordance with the requirements of the <i>Minerals Resource Act 1989</i>. These agreements which remain confidential between Springsure Creek</p>



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		<p>most cases, the Basalt aquifer will have sufficient saturated thickness to enable deepening of wells. Four registered bores (RN57358, 57359, 57360 and 57361), are located in where the modelled initial saturated thickness of the basalt aquifer is less than 40 m. Deepening 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, SCC will maintain supply of groundwater as agreed with the landholder.</p> <p>There appears to be no clear cut commitment about what agreements will be entered into with the landowners and when this will occur. In fact, there appears to be little change in the words provided at EIS stage where it was pointed out that a stronger clearer commitment was required.</p>		<p>Coal and landholders, will address all agreed issues of concern, including potential impacts on groundwater. Specific conditions or requirements in relation to directly affected landholders are therefore not considered to be required as part of any Environmental Authority as they are already addressed through other legislation.</p> <p>For landholders outside of the MLA where compensation agreements are not required prior to mining commencing, proposed condition D42 in Section 18.5.4.12 (pg 18-119) outlines our proposed commitment regarding impacts on groundwater bores.</p> <p><i>(D42) Where an existing or potential groundwater resource exists then discharge quality should be monitored and conditioned with a tabulated format and condition the same as surface water discharges, and dependent on the uses for the groundwater resource. In addition, any landholder bores located in areas of significant drawdown (which resulting in an inability or reduction in access to groundwater volumes) will be deepened or replaced. This is in addition replacement of bores as a result of any structural damage caused by subsidence.</i></p>
8	Chapter 3 – Project Description	<p><b>Section 3.4.3. Ongoing Evaluation and Exploration Activities (Page 3-27 to 3-29)</b></p> <p>Thank you for providing the local project area cross-sections. However they require greater vertical exaggeration in order to be interpreted correctly.</p>	Please increase the vertical exaggeration in the project cross-sections.	<p>A draft amended Figure (the first figure in the series of four) was sent to Wedeena Smith on 6 August 2013 for review.</p> <p>All four figures have now been amended with an increased vertical exaggeration to better show the strata.</p>
9	Chapter 18 – EM Plan	<p><b>Section 18.5.4.6. Environmental values including GDEs (Page 18-97) and parallel section in Chapter 9.</b></p> <p>The mapping in Figure 9-22 is not from EHP but is from the National Atlas of Groundwater Dependent Ecosystems, and indicates that a high potential for GW interaction exists in a significant portion of the project area.</p> <p>It is an assumption to state that the predicted maximum drawdown of 0.5m, which would be permanent, is comparable to natural system variability. No evidence to prove this assumption is provided. It is hoped that the fractures do not propagate into the basalt, but if they do, there may be significant effects on the deeply rooted components of GDEs. There is no evidence to suggest that these potential GDEs can survive a drought coincident with a permanent drawdown of 0.5m.</p>	<p>Replace:</p> <p><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></p> <p><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</i></p>	<p>This text has been replaced in <b>Section 18.5.4.6</b> as requested and mirrored in <b>Section 9.3.6.4 Groundwater-Dependent Ecosystem</b> for consistency.</p>

# Springsure Creek Coal Mine Project

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			<p><i>aquifers 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></p> <p><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></p> <p>With:</p> <p><i>The National Atlas of Groundwater Dependent Ecosystems indicates that there are areas with a high potential for GDEs in the Project area. In periods of low rainfall, the dependence of GDEs on groundwater is higher. As the predicted maximum drawdown along some creek systems is approximately 0.5 m, in periods of low rainfall, there may be impacts on GDEs.</i></p> <p><i>The risk to GDEs is considered to be medium, based on conservative assumptions that:</i></p> <ul style="list-style-type: none"> <li><i>the fractures above the goaf extend into the basalt by several 10s of metres in parts of the mine area</i></li> <li><i>some of the deep rooted plants in the riparian zone have high dependence on groundwater particularly during low rainfall periods.</i></li> </ul> <p><i>However, 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. It is therefore assumed that there will not be any significant impacts to riparian vegetation.</i></p>	
10	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9. Control Strategies (groundwater – environmental values) (Page 18-101)</b></p> <p>The statement about a water level decline not affecting GDE health is immediately followed by a statement to the effect that, as GW becomes less available, fringing vegetation will transpire less. This is actually a statement about declining health.</p> <p>Enhanced recharge through increased ponding (a major system change) is generally not considered desirable for the ecosystems or groundwater systems already present.</p>	<p>Please remove the paragraph:</p> <p><i>Although a decline in water levels is predicted to occur, there are several ways in which the regional water balance could adjust without adverse effects on the health of GDEs. One possibility is that as the water table declines, fringing vegetation takes less water by evapotranspiration such that withdrawal of groundwater is balanced by a slight decrease in evapotranspiration from vegetation throughout the region. Another possibility is that re-directed flow during episodic flood events continues to supply recharge to the Alluvium that allows water table elevations to recover. Recharge may locally be enhanced as a result of cracking</i></p>	Amended as requested and mirrored in Groundwater chapter s9.6.1.5.

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Issue	Topic	Comment	Recommendation / Suggestion	Response
11	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9. Control Strategies (groundwater - management of drawdown) (Page 18-103)</b></p> <p>Fracturing may impact on both GW levels (drawdown) and surface topography (subsidence). This in turn may impact on environmental values associated with GDEs, water bore function and agricultural practices.</p> <p><i>Drawdown:</i> The discussion about drawdown impact mitigation strategies is good overall, but this section is not clear about how fracturing extents will be monitored – is it through monitoring GW levels alone? What would be the triggers for the implementation of mitigation measures? Have there been other projects where bulkheads or grout injection were successfully implemented as mitigation measures?</p> <p><i>Subsidence:</i> There is no indication in the SEIS of what the control strategies, remediation is, or the mitigation measures are, for impacts to GDEs from subsidence.</p>	<p><i>of stream bed and increased ponding depth above subsided panels.</i></p> <p>The discussion about adaptive fracture-related drawdown management needs to be strengthened with commitments about the drawdown impact mitigation strategies. Cite instances where mitigation measures for fracture-related drawdown impacts have been successfully implemented. State what the trigger levels would be for the measures to be implemented.</p> <p>Add a discussion that includes monitoring methods, triggers and commitments about mitigation and remediation for subsidence-related impacts on GDEs. If possible it should be related to the mitigation measures and commitments about fracture-related drawdown impacts.</p>	<p>Further discussion has been included in s9.6 and s18.5.4.9 as requested.</p> <p>Add a discussion regarding monitoring of GDE's (by veg survey) and outlined what management strategies we might implement if GDE's affected – enhance existing ones by supplementing water supply, offset by enhancing another one elsewhere. Refer paper provided by Peter Brisbane.</p> <p>For commitments in relation to this, please refer to proposed conditions D42 (as noted above under comment No.7) and F6 below.</p> <p>(F6) The subsidence management plan must be developed to the satisfaction of the administering authority in accordance with the DNRM guideline entitled "Watercourse Subsidence – Central Queensland Mining Industry" or any updates that become available from time to time and must include at least the following components:</p> <ol style="list-style-type: none"> <li>1. Condition of the existing watercourse (including a baseline assessment);</li> <li>2. The proposed impacts of subsidence on the watercourse and floodplain including but not limited to: <ul style="list-style-type: none"> <li>• Physical condition of surface drainages <ul style="list-style-type: none"> <li>- Erosion</li> <li>- Areas susceptible to higher levels of erosion such as watercourse confluences</li> <li>- Incision processes</li> <li>- Stream widening</li> <li>- Tension cracking</li> <li>- Lowering of bed and banks</li> <li>- Creation of in stream waterholes</li> <li>- Changes to local drainage patterns.</li> </ul> </li> <li>• Overland Flow <ul style="list-style-type: none"> <li>- Capture of overland flow by subsided long-wall panels</li> <li>- Increased overbank flows due to lowering of high bank of watercourses</li> <li>- The portion of local and large scale catchment likely to be captured by subsided</li> <li>- Long-wall panels and the associated impacts on downstream users.</li> </ul> </li> <li>• Water Quality <ul style="list-style-type: none"> <li>- Surface water</li> </ul> </li> </ul> </li> </ol>

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Issue	Topic	Comment	Recommendation / Suggestion	Response
				<ul style="list-style-type: none"> <li>- Groundwater</li> <li>- Overland flow water detained in subsided long-wall panels.</li> <li>• Land condition: Current land condition to be impacted by subsidence; and</li> <li>• Infrastructure: Detail of existing infrastructure (pipelines, railway, power lines and haul roads) should be identified where there is a potential impact from effects of land subsidence.</li> </ul> <p>3. Proposed options for mitigating any impacts associated with subsidence and how these mitigation methods will be implemented:</p> <ul style="list-style-type: none"> <li>• A risk assessment;</li> <li>• A monitoring, evaluation and maintenance program;</li> <li>• Cumulative Impacts on watercourse or catchments;</li> <li>• Impacts on groundwater; and</li> <li>• Impact mitigation techniques required to be undertaken within the watercourse and floodplain of the watercourse.</li> </ul>
12	Chapter 12 - Ecology	<p><b>Section 12.5.8.2. Stygofauna Assessment – Field assessment</b></p> <p><b>Inadequate sampling for stygofauna and inconsistency between the Ecology and Groundwater chapters regarding the presence of alluvial aquifers.</b></p> <p>The Ecology report states that the majority of stygofauna that have been collected to date have been in alluvial aquifers, but that alluvial aquifers do not occur in the study area (Section 12.5.8.2). It also states that stygofaunal sampling may have been inadequate (p. 12-88).</p> <p>In comments on the EIS, DNRM pointed out that although the Ecology report (Chapter 12) stated that there were no alluvial aquifers in the study area, alluvium was referred to in the Groundwater Report. DNRM requested that chapter 12 be amended to make it consistent with the Groundwater Report. This has not been done. There are a number of references to alluvial aquifers in the revised Groundwater Report (chapter 9) e.g. pp. 9-18, 9-27, 9-31, 9-39, 9-56, 9-64 and the revised EM Plan (Chapter 18) e.g. pp18-92, 18-93, 18-97, 18-103 and 18-104. Page 18-104 refers to monitoring bores to be installed in the alluvium.</p> <p>Further, the original EIS stated that bores were purged prior to sampling. DNRM pointed out that this was inconsistent with WA Guidance No.54 and 54a. In response the proponent has simply stated that bores were not purged prior to sampling. It appears that the stygofaunal sampling was carried out during groundwater</p>	<p>The EM Plan should include a commitment that monitoring bores to be established in the alluvium will be sampled for stygofauna in a manner consistent with the WA Guidance No.54 and 54a.</p> <p>The Ecology report should be modified to be consistent with the Groundwater report regarding the presence of alluvium in the study area, as requested in the previous comments on the EIS.</p> <p>The original consultant’s report on the stygofaunal and water quality sampling should be provided.</p>	<p>The Ecology Chapter has also been aligned with the Groundwater report regarding the presence of alluvial aquifers.</p> <p>No separate report regarding stygofauna and water quality sampling was prepared. However, <b>Chapter 12 Ecology, s. 12.5.8.2 p. 12-88</b> has been updated to provide full details of stygofauna monitoring and the field results.</p> <p>SCC can confirm that bores were purged prior to sampling stygofauna in accordance with the WA Guidelines.</p> <p>Bores at the top of the Basalt will enable the monitoring of Alluvium. Alluvial aquifers are not present within the Project area.</p>



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		quality assessment. It is standard procedure to purge bores before sampling for water quality. This then raises the question of whether bores were sampled adequately for water quality, if they were not purged. The best way of establishing how sampling was carried out is through reference to the consultant's report, which was not provided as a technical appendix to the EIS		
13	Water Management and Use – Surface Water	<p><b>General comment</b></p> <p>We have noticed that the Appendix document was not updated for subsidence, however we acknowledge that the proponent has noted the comments that we made on that section</p>		Noted.
14	Resource Planning – Subsidence Modelling	<p><b>Subsidence Modelling</b></p> <p>The modelling of subsidence over the mine area as presented in the EIS was based on a mine plan designed to fit within the boundaries of the then ML application. Since that time, the original ML application was rejected and a new ML application has been lodged, with boundaries that are marginally different and over a marginally smaller area than the original. Although the longwall panel layout has been amended (essentially by shortening panels to fit within the new ML boundary), there has been no matching subsidence model presented in the SEIS to show how subsidence at the periphery of the mine plan will relate to the new ML boundary. This is important as DNRM will not permit any subsidence to be caused to any area outside the boundary of the company's ML and the surface area held under same.</p>	It is recommended that a new subsidence model/plan be presented showing the most up to date ML boundary and mine plan (longwall layout) and the surface expression of subsidence that is predicted relative to those.	Subsidence modelling has been updated accordingly and the results are presented in Chapter 5 Land section 5.5 and in Appendix A4-2.
15	Resource Planning – Subsidence Modelling	<p><b>Subsidence Modelling</b></p> <p>The SEIS also includes a modelled subsidence plan showing predicted pondage areas on the surface caused by the layout of the subsurface longwall panels and pillars. This plan overlays the "ponding" areas over existing surface drainage, but does not show any interpretation of changes to surface drainage patterns that may occur "naturally" as a result of subsidence, or of surface engineering works that may need to be done to realign surface drainages to minimise the effects of ponding.</p>	It is recommended that another plan be provided to show an interpretation of the surface drainage pattern that is expected to exist post-subsidence.	Subsidence modelling has been revised for changes to landform and also for hydrology. Updates are included in <b>chapter 5 Land s 5.5</b> and <b>chapter 8 Surface Water, s. 8.5</b> .
16	Strategic Cropping Land – General	<p><b>Determining SCL and Non-SCL</b></p> <p>The information provided in the SEIS regarding the SCL status of the land does not adequately address Schedule 1 of the <i>Strategic Cropping Land Act 2011</i> (SCL Act) or the <i>Guidelines for applying</i></p>		Comments are noted. No action required for EIS.

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Issue	Topic	Comment	Recommendation / Suggestion	Response
	Comments	<p><i>the proposed strategic cropping land criteria</i> (criteria guidelines). Without adhering to the SCL Act and criteria guidelines the SEIS could have incorrectly identified areas of SCL and non-SCL, and consequently could have misrepresented the area of SCL impacted by the project. Should a validation application be lodged with DNRM based on the information in the SEIS, it would be unacceptable.</p> <p>Examples include, but are not limited to:</p> <ol style="list-style-type: none"> <li>1. The spatial density of soil assessment sites do not satisfy the requirements set out in the criteria guidelines; and</li> <li>2. The SCL act and criteria guidelines specify two methods for determining the soil water storage, the SEIS (Appendix A4 – 01, pg 25 and section 3.8 pg257) states that 5 locations are within the 15% margin of the look up table and therefore require further assessment. The SCL Act and criteria guidelines state the other acceptable method of determining soil water storage; the PAWC method used in the SEIS is unacceptable.</li> </ol>		
17	Strategic Cropping Land – General Comments	<p><b>Future SCL Protection Decision Application for the Mine Area</b></p> <p>As the EIS process does not provide any means of approval relating to SCL, a SCL protection decision will be required before any EA or ML can be issued. The SCL protection decision application for the mine area will be assessed in line with the requirements of the SCL Act. The application will be required to demonstrate:</p> <ul style="list-style-type: none"> <li>• the nature of the impacts as a result of the project;</li> <li>• that SCL has been avoided to the greatest extent practicable;</li> <li>• impacts have been minimised where they cannot be avoided;</li> <li>• whether the impacts are temporary or permanent (as per section 14 of the SCL Act) ;</li> <li>• for temporary impacts, how the SCL will be restored to its pre-development condition, and not impeded from cropping (legally or physically) for more than 50 years: and for permanent impacts, mitigation measures in accordance with the SCL Act.</li> </ul> <p>Whether the subsidence from underground mining constitutes a</p>		Comments are noted. No action required for EIS.



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Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p>temporary or permanent impact, will be determined by whether the application can demonstrate the land affected by subsidence can be restored to pre-development condition, and is not impeded from being cropped for at least 50 years. Restoration to pre-development condition is more than just maintaining the pre-development land use; it also includes, but is not limited to, the soil profile and soil properties, landform, and productive capacity of the land.</p> <p>The supplementary SEIS states the predicted subsidence is in the order of 1.2m to 2.3m over the longwall panels and 0.2m to 1m over the pillars. The SEIS also focuses on managing the impacts of subsidence by remediating the subsided areas (i.e. re-contouring, ripping to remove surface cracks etc.), and in the long term does not expect any permanent change in land use will occur. However the SCL Act, in seeking to preserve a strategic resource, applies a more rigorous test than “stable landform and re-vegetated” when determining whether an impact is of a temporary or permanent nature. The SCL Act requires not simply that the land be rehabilitated sufficient to allow a comparable agricultural land use, but requires that land be restored its pre-development condition and all impediments to cropping to be removed (within 50 years) – irrespective of what the predevelopment land use was or the post-development use of adjoining land happens to be.</p> <p>Based on the information within the SEIS, DNRM has serious concerns whether restoration to pre-development condition (as defined by the SCL Act) is possible. Mining Lease Application 70486 meets the requirements of section 289 of the SCL Act for transitional status, and is therefore exempt from the permanent impact restriction. As a result, the ultimate determination of whether the impact is temporary or permanent does not pose as a show stopper for the mine area.</p>		
18	Strategic Cropping Land – General Comments	<p><b>Transport corridor and Rail load out facility</b></p> <p>DNRM notes that the Terms of Reference for the EIS includes the requirements for the construction, upgrading or relocation of any transport-related infrastructure. This includes road and rail transportation and exportation of products during the construction and operational phases of the project. DNRM notes the previous decision that the transport corridor and rail load out facility should not be included in the EIS, however it would be remiss of DNRM to not raise the issues relating to the SCL approvals required for those components of the overall project, given the successful undertaking of the development is contingent</p>		<p>Comments noted. As acknowledged, the transport corridor and train load-out facility are not included in the EIS are subject to a separate approvals process.</p> <p>These comments will be considered as part of developing documentation for the separate SCL approval.</p> <p>Comments are noted. No action required for EIS.</p>

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Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p>on access to a transport corridor.</p> <p>The rail load out facility in its current location, being Mining Lease Application 70501, will not require any SCL application as there is no potential SCL on the SCL trigger map in that area.</p> <p>The transport corridor, being Mining Lease Application 70502, does contain potential SCL and will require a SCL protection decision. The transport corridor is within a SCL protection area and does not have an exemption from the permanent impact restriction. The requirements for the protection decision application for the transport corridor will need to address the same requirements previously outlined for the mine area.</p> <p>As no information has been provided regarding the construction, operation, and decommissioning of the haul road, DNRM is unable to provide an indication of the likelihood of it being a temporary or permanent impact (as defined by the SCL Act). If the land is unable to be restored to pre-development condition and all impediments to cropping are not removed within 50 years, the haul road will be a permanent impact. For a permanent impact to proceed, an Exceptional Circumstances application would need to be lodged, and the development would need to be granted Exceptional Circumstances. The process and criteria for making the exceptional circumstance decision are provided for by chapter 4 of the SCL Act. The Minister for Natural Resources and Mines would currently be the decider of the application.</p> <p>The overall project is dependent on being able to transport the coal from the mine to a rail load out facility via the transport corridor. If any permanent impact is to occur to SCL within that corridor, the ability of the project to proceed could be reliant on obtaining a favourable SCL Exceptional Circumstance decision.</p>		

R/1 DL Release

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### Department of Environment and Heritage Protection

Issue	Topic	Comment	Recommendation / Suggestion	Response
1		<p><b>Inconsistent information on water management and assessment</b></p> <p>The key issues identified relate to water management and assessment proposed by the proponent. In particular the water management on site and the discharge practices are inconsistent in the amended EIS and EM Plan. While in some areas the EIS proposed a non-release scenario, in other areas the EIS proposed uncontrolled discharges (outlined as Condition D15 in the EM Plan). Of importance here would be that mine dewatering water (from groundwater inflows) would be stored in dams with a potential for uncontrolled discharge or vertical infiltration of contaminants from dams to water table aquifer.</p>	<p>EHP recommends that the inconsistencies on water management on site and discharge practices would be addressed in the EIS and EM Plan.</p>	<p>A meeting was held between DSITIA, EHP and SCC on 29 July 2013 to discuss releases from the project. At this meeting a mutual understanding was obtained regarding:</p> <ul style="list-style-type: none"> <li>• The operational requirement for releases</li> <li>• The risk-based design process for regulated dams</li> <li>• The environmental controls for releases</li> </ul> <p>As discussed at that meeting, all dams have the potential to overflow but the point at which overflows occur varies depending on the risk of environmental harm. The risk of environmental harm is qualified by the quality of the water held within the dam. Higher risk dams are designed to meet a lower likelihood of overflowing.</p> <p>The proposed mine dewatering dam and the 4 environmental dams are designed to meet the significant hazard criteria for regulated dams based on DNRM's <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i>. Accordingly, overflows via a spillway (i.e. uncontrolled releases) will occur for rainfall events higher than the design criteria for this dam. This is the case for all mines in QLD, including operational mines.</p> <p>Following discussions with EHP and DSITIA, the option to include controlled releases of dam water as part of the project has been accepted by SCC. This will allow for additional control of dam water levels.</p> <p>The following sections of the EIS have been updated presenting the description of proposed controlled releases and their impacts:</p> <ul style="list-style-type: none"> <li>• Chapter 3 Project Description s.3.6.4</li> <li>• Chapter 8 Surface Water s.8.6</li> <li>• Chapter 18 EM Plan s.18.3.3 and 18.4.4</li> </ul> <p>Furthermore, Chapter 18 EM Plan has been updated to include model conditions for end of pipe discharges, in addition to those for spillway releases that were already included.</p>
2		<p><b>Insufficient information on water parameters and WQOs for receiving waterways</b></p> <p>As part of the EIS review, the Department of Science, Information, Technology, Innovation and the Arts (DSITIA) and EHP have recommended that the proponent conducts further water quality assessments for receiving waterways. Water quality data and</p>	<p>EHP recommends the following:</p> <ul style="list-style-type: none"> <li>• that a list of additional water quality parameters collected in February 2013 survey should be presented</li> <li>• that a list of WQOs outlined in the amended EIS should be updated to include all WQOs</li> </ul>	<p>As discussed at meeting on 29 July 2013, the additional water quality data collected in February 2013 was presented in the EIS in Table 8-6 and included the WQOs tested for.</p> <p>All WQOs were already presented in this table on left hand side.</p> <p>Table 8-6 has been updated to include contextual information</p>



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Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p>parameters should be analysed as outlined in the DNRM, Guideline Model Water Conditions for Coal Mines in the Fitzroy Basin.</p> <p>Since then, the proponent collected additional surface water quality data has been collected at four locations (February 2013). While an extended suite of water quality parameters have been analysed for the February 2013 survey, the proponent does not provide a clear list of what these additional parameters consisted of.</p> <p>This is important as sampling program 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>Furthermore, the water quality objectives (WQOs) have not been specified in full.</p> <p>For a comprehensive review refer to Table 1.</p>	<ul style="list-style-type: none"> <li>that water conditions proposed should reflect Fitzroy Model Water conditions and their requirements</li> <li>that where any new data should be incorporated with data already collected and compared for comparative analysis; i.e. the EM Plan should reflect sufficient data to meet conditions and if not, should otherwise be justified.</li> <li>Revise the water chapter and EM Plan to show compliance with acceptable water conditions.</li> </ul>	<p>about the additional monitoring sites sampled during Feb 2013 so as to be consistent with other sampling sites (changes are highlighted yellow).</p> <p>Following meeting between SCC, EHP and DSITIA on 29 July, DSITIA have confirmed the Scheduled WQOs for the Comet River were in the SEIS. No action required.</p>
3		<p><b>LAm<sub>ax</sub> exceeds criteria</b></p> <p>The noise modelling proposed in the amended EIS shows LAm<sub>ax</sub> criteria is exceeded for sensitive receptors NL4, NL5, NL6 and NL7. No mitigation measures have been proposed.</p> <p>The EIS and the EM Plan did not contain information how acceptable levels of noise can be achieved. In particular, the following issues will need to be addressed:</p> <ol style="list-style-type: none"> <li>What are the noise sources that are causing the high values of LAm<sub>ax</sub>?</li> <li>What is the timeline of those sound sources and how long will they be running for in comparison with the mine life?</li> <li>What are the proposed mitigation measures to address exceedances in LAm<sub>ax</sub>?               <ol style="list-style-type: none"> <li>When will they be put in place?</li> <li>What sound reduction is anticipated?</li> </ol> </li> </ol>	<p>Revise the noise chapter and EM Plan to show compliance with acceptable noise levels.</p> <p>Address the questions outlined above and present mitigation measures and their effectiveness.</p>	<p>As clarified through further discussions between EHP and SCC, sites NL4, NL5, NL6 and NL7 are not sensitive receptor sites. As noted in Table 11-3, Section 11.3.3 they are baseline noise monitoring locations within road reserves.</p> <p>A memo was sent by email to EHP on 1 August contextualising the Lamax recordings collected during the surveys. High levels of Lamax are associated with vehicle movements during early morning (5:30 – 6 am) which is considered to be the night time period under EPP Noise. These activities continue across a 24 hour period, 365 days a year on an ongoing basis. These noises occur at a large distance to the sensitive receptors and any intrusive noise from the mine is highly unlikely to contribute to Lamax conditions. Section 11.3.3 has been updated to clarify this.</p> <p>EHP emailed SCC on 9 August to confirm this issue is closed out and no further work is required.</p>
4		<p><b>Subsidence modelling outside MLA</b></p> <p>The modelling of subsidence shows impacts outside of the MLA.</p>	<p>Reconsider the subsidence model based on the existing MLA and any potential environmental impacts associated with changes in hydrology.</p>	<p>Subsidence modelling has been revised for changes to landform and also for hydrology. Updates are included in chapter 5 Land s 5.5 and chapter 8 Surface Water, s. 8.5.</p>
5	Chapter 8 – Surface Water	<p><b>Section 8.4 and subsection relating to the Water Quality Assessment</b></p> <p>The proponent response has largely fulfilled the recommendation made by WAS, however there is some issue with the details, including:</p>	<p><b>R1.</b> Where any new data are collected it should be incorporated with data already collected, for example sites samples in February, 2013 have been sampled previously in summer and this data should be compared.</p> <p><b>R2.</b> A description should be included in Section 8.4.3.1 (Site</p>	<p>As per part of response to issue #2 above, Chapter 8 Table 8-6 has been updated to include contextual information about the additional sampling sites. It was agreed at meeting on 29 July 2013 that statistical comparisons were not required (and indeed are unlikely to be validly comparable).</p>



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## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p><b>C1.</b> The proponent should better incorporate any new data collected. For instance two of the four sites sampled in February coincide with sites already sampled in summer. How do these sampling events for the same site compare in water quality?</p> <p><b>C2.</b> There are no surface water survey site descriptions for the new sites that have not been sampled before, namely (a) Springsure Creek Inflow to Den-Lo Park Dam and (b) Upstream of the Project area on Unnamed Creek 4.</p> <p>[NB February survey sites:</p> <ul style="list-style-type: none"> <li>• Springsure Creek Inflow to Den-Lo Park Dam (new site);</li> <li>• Upstream from the Project area on Springsure Creek (site 5); – Upstream from the Project area on Station Creek (site 2) and,</li> <li>• Upstream of the Project area on Unnamed Creek 4 (new site).]</li> </ul> <p><b>C3.</b> While an extended suite of water quality parameters have been analysed for the February, 2013 survey (4 sites) the proponent does not provide a clear list of what these additional parameters are in Chapter 8.</p> <p><b>C4.</b> Some water quality objectives are missing from Table 8-8 (pp8-32</p> <p><b>C5.</b> The reference to the information on surface water monitoring criteria in Chapter 18 is not specific enough.</p>	<p>Conditions) of any new sites.</p> <p><b>R3.</b> Include a list of additional water quality parameters included in the February, 2013 survey in Section 8.4.3.2 (Water Quality and Sediment Sampling Method).</p> <p><b>R4.</b> Update Table 8-8 (pp8- 32 – 8-33; Chapter</p> <p><b>R5.</b> The proponent should outline the specifics of the surface monitoring program and criteria in Chapter 18 as stated - “surface water monitoring criteria are thus to be announced as per Chapter 18”</p>	<p>For all other recommendations please refer to response to #2 above.</p>
6	Chapter 8 – Surface Water	<p><b>Section 8.5.6 Stream Flows</b></p> <p>The proponent does discuss the subsidence as potentially reducing connectivity and impacting stream flow within and downstream of the project area (including a wetland protection area) with potential impacts to aquatic flora and fauna (Table 12-19). The risk level is considered medium (Table 12-19). Subsidence management measures are also outlined (Section 12.7.10) and these should decrease the risk of impacts from the predicted decrease in flow in Springsure Creek if carried out appropriately. The proponent has committed to ongoing monitoring of streams and wetlands downstream for subsidence related impacts (Section 12.7.11) throughout the construction; operational phases and decommissioning phases of the mine.</p>	<p>No further recommendations.</p>	<p>No action required.</p>
7	Chapter 8 - Surface Water	<p><b>Table 8-13</b></p> <p><b>C6.</b> There is still inconsistent information in the SEIS regarding whether there will be a controlled discharge from dams. For example, the proponent has not updated point 3 under the</p>	<p><b>R6.</b> Clarification is required on the inconsistencies stated throughout the SEIS and EM Plan regarding water management practices and whether the mine will be practicing and conditioned for controlled or uncontrolled releases. Point 3 under the heading of “Mobilisation of contaminants” [p18-99; Chapter 18; SEIS]</p>	<p>Please refer to response to issue #1</p>

# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		heading of "Mobilisation of contaminants" [p18-99; Chapter 17; SEIS]. If there will be not controlled discharges from dams then this point should be removed from the text.	<p>references controlled discharges from dams. Under the next heading Mine Water Management System, it states a mine water management system has been developed based on no controlled discharges.</p> <p>The SEIS must clearly identify the proponents intention when and if the following scenarios will occur –</p> <ul style="list-style-type: none"> <li>Controlled releases</li> <li>Uncontrolled releases</li> </ul> <p>Both scenarios must also include appropriate assessment and monitoring to satisfy the Fitzroy Model water conditions.</p>	
8		The response provides sufficient information to understand that overburden will not be stockpiled on site, yet there will be coal stockpiled during the mine operation. Erosion and stormwater runoff from the coal stockpile is listed as a potential cause of impacts to surface water (sedimentation and contamination) during the operation phase of the project.	No further recommendations.	No action required.
9	General Water Management	<b>C7.</b> The proponent has added information that there will be not controlled discharge of mine wastewater to surface water and that uncontrolled release will be rare and restricted to high rainfall events. The proponent needs to ensure that all references to controlled discharge in the SEIS are removed.	<b>R7.</b> EHP requires that the inconsistencies on water management on site and discharge practices would be addressed – as per R6 above.	Please refer to response to issue #1
10	Chapter 18 – EM Plan	<b>C8.</b> Figure 18-11 in Chapter 18 of the EIS is now Figure 18-12 in Chapter 18 of the SEIS. Figure does not appear to show any new information when compared to Figure 18-11. The proponent should indicate (what information has been added) how the figure has been updated apart from the numbering.	<b>R8.</b> The proponent should say what has been updated in Figure 18-12 (Chapter 18) of the SEIS.	<p>As per email correspondence between SCC and DSITIA on 30 July 2013, SCC has provided maps highlighting the differences between original and amended maps.</p> <p>DSITIA has agreed this is sufficient (as per email from Eva Holt on 30 July 2013).</p>
11	Chapter 12 - Ecology	<p><b>Section 12.8 Mitigation Measures</b></p> <p>Wording in dot point 5; p12-106; Section 12.7.8 (formerly 12.8.8) of Chapter 12 has been changed to <i>"The redirection of all mine affected runoff and mine affected waters are made to appropriately managed dams which have been designed to be above the 1:1000 year ARI level"</i></p> <p>It is also apparent from the EMP (Chapter 18) of the SEIS that mine dewatering water (from groundwater inflows) will be stored in dams with a potential for uncontrolled discharge or vertical infiltration of contaminants from dams to water table aquifer.</p> <p><b>C9.</b> Not all of the performance criteria associated with potential groundwater impacts from groundwater inflow and disposal/removal (e.g. in italics below) are measurable and should be reconsidered.</p> <p><i>"all valid groundwater complaints from down gradient users will</i></p>	<b>R9.</b> Review the performance criteria for ground and surface water impacts and ensure all environmental protection commitments are measurable and auditable.	<p>As per response to issue #1 SCC can confirm that contaminated runoff will be stored within dams designed according to DNRMs guidelines which minimises the risk of environmental harm from releases as appropriate to the quality of the water held within the dams.</p> <p>The risk of impacts from controlled releases has now been added to the EIS (refer response to issue #1).</p> <p>An additional bullet point has been added to p12-106 as follows (and mirrored in Chapter 18 EM Plan s.18.5.8.6:</p> <ul style="list-style-type: none"> <li>All regulated dams have been designed to contain contaminated water as appropriate to their hazard of environmental harm</li> </ul> <p><b>C9.</b> The comment <i>"all valid groundwater complaints from down gradient users will be taken seriously and investigated in accordance with Project investigation procedures"</i> is a</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p><i>be taken seriously and investigated in accordance with Project investigation procedures"</i></p> <p>Without measureable performance criteria it will be difficult to assess impacts and / or efficacy of mitigation and management measures.</p>		<p>performance criteria. This is intended to be a high level objective.</p> <p>Measurable criteria for evaluating groundwater impacts are set out further on in the EIS at s.18.5.4.10 i.e.</p> <p><i>"Groundwater Quality Monitoring</i></p> <p>Regular monitoring of groundwater quality will take place at a frequency to be determined by the proximity to the impact zone or by the magnitude of any change to groundwater quality chemistry. Monitoring of groundwater quality will comprise the following:</p> <ul style="list-style-type: none"> <li>▪ Electrical conductivity and pH from selected monitoring bores to form part of the monitoring network within the predicted area of impact and water reported to the mine. Changes in groundwater quality may indicate some mixing of shallow groundwater, associated with potential leakage of water from the Basalt to the deeper HSUs; and</li> <li>▪ Sampling from selected monitoring bores for laboratory analyses of major ions, total dissolved solids, metals and potentially harmful substances associated with oil, fuel and chemical handled on site e.g. BTEX, during construction and operations.</li> </ul> <p>Groundwater chemistry data will be analysed graphically for trends and any correlation with observed groundwater levels, mine inflow and rainfall."</p> <p>Conditions which establish the parameters against which groundwater impacts will be assessed quantitatively are present below in s. 18.5.4.11</p> <p>No additional changes have been made in response to this comment.</p>
12	Chapter 12 – Ecology	<p><b>Section 12.8 Mitigation Measures</b></p> <p><b>C10.</b> The proponent not only need to ensure that they have a good characterisation of water in the receiving environment but will also need to characterise the quality of mine affected water that may be discharged and under what conditions (if there is natural stream discharge at the time of mine affected water release then potential contaminants will be diluted to some extent) to the environment before they can understand the potential impacts of mine affected water release (controlled or uncontrolled) to the receiving environment.</p>	<p><b>R10.</b> More information would be required on the quality of mine affected water that may be released and under what scenarios or conditions this water would be released in order for the proponent to justify the statement <i>"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"</i></p>	<p>Agreed and the process for obtaining and evaluating additional information is set out in chapter 8 surface water and mirrored in chapter 18 EM Plan (rather than detailed in chapter 12 Ecology).</p> <p>For details of the process please refer to chapter 18 section 18.5.4.10 and 18.5.4.11.</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
13	Chapter 18 – EM Plan	<p><b>Section 18.5.4.6 Potential Impacts on Environmental Values (page 18-84)</b></p> <p>The proponent has added more detail on potential impacts to surface and groundwater EVs, and proposed control strategies to Sections 18.5.4.6 and 18.5.4.9 of the SEIS, respectively. Included in Section 18.5.4.9 of the SEIS is some broad information on the monitoring program to be implemented to;</p> <p>(a) <i>“supplement the water management strategy to confirm that any potential uncontrolled discharges (overflows from the Environmental Dams) do not adversely impact on downstream water quality”, and</i></p> <p>(b) <i>“serve as a continual improvement mechanism for the ongoing management of stormwater including operational calibration of the water balance model”</i></p> <p><b>C11.</b> According to sub-point 3 p18-101; Chapter 18; SEIS (“Relevant water quality parameters, including physico-chemical and estimation of local stream flow;”) local stream flow data will be estimated rather than measured.</p> <p><b>C12.</b> Very limited detail is provided in Section 18.5.4.9 (EM Plan section of the SEIS) on the intended monitoring of mine affected water in storages. This information is integral in determining the potential impacts should mine affected water be released. This information would also be used to set release limits and / or trigger values should the mine affected water ever be released to surface waters.</p>	<p><b>R11.</b> Where possible measure local stream flow data rather than estimating it.</p> <p><b>R12.</b> Provide greater detail within a Mine Affected Water Monitoring Plan or incorporate this information into the Water Quality Monitoring Plan.</p>	<p>As per response to issue #12 above, the process for obtaining and evaluating additional WQ information is detailed in chapter 18 EM Plan. Section 18.5.4.11 has been re-written to provide greater detail on WQ monitoring as per EHP’s EA model conditions. All changes to the text are highlighted in yellow.</p>
14	Chapter 18 – EM Plan	<p><b>Section 18.5.4.7 Environmental Protection Objectives (page 18-85)</b></p> <p><b>C13.</b> The proponent has not fully addressed the recommendation. There is a combination of information that is used in the site specific assessment of potential impacts and to quantitatively assess the efficacy of impact mitigation and management measures. Initially, environmental values and objectives to protect or enhance these values should be identified. WAS wish to reiterate that while the baseline water quality monitoring information is important the Scheduled environmental values and water quality objectives for the region (attached) should also be considered in impact assessment.</p>	<p><b>R13.</b> Scheduled environmental values and water quality objectives for the region (attached) where the project occurs are as important as baseline monitoring data and should also be considered in impact assessment. EVs and the objectives used to protect or enhance these values should be detailed in the EIS and EM Plan. There are Scheduled EVs for surface and groundwater flow and Scheduled WQOs for flow objectives in high ecological value waters. Regional surface and groundwater flow objectives should also be taken into account (Queensland Government, 2011).</p>	<p>Following meeting between SCC, EHP and DSITIA, DSITIA have confirmed the EIS included the Scheduled WQOs for the Comet River in the SEIS. No action required.</p>
15	Chapter 18 – EM Plan	<p><b>Section 18.5.4.8 Performance Criteria (page 18-85)</b></p> <p>The proponent has fulfilled the recommendations made by WAS.</p>	<p>No further recommendations.</p>	<p>No action required.</p>
16	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9 Control Strategies (page 18-87)</b></p>	<p><b>R14.</b> In relation to condition (D15) - EHP requires that the inconsistencies on water management on site and discharge</p>	<p>SCC has clarified any inconsistencies (refer to response to issue #1 above). SCC does not intend to apply for a TEL but seeks</p>

# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		C14. It is not usual to condition for an uncontrolled release, especially if the release will be rare or unlikely to occur at all during the lifetime of the project. In instances where an uncontrolled release is foreseeable the proponent may apply for a Temporary Emissions Licence (TEL). The information collected to characterise baseline surface water quality and the quality of mine affected water in storage dams monitoring would be useful in this application. There would also be some monitoring requirements under the TEL.	practices would be addressed – as per R6 above.	conditioning on overflow and end of pipe releases. Chapter 18 section 18.5.4.11 has been re-written using EHP's latest EA model conditions that provide for both scenarios. All changes are highlighted yellow.
17	Chapter 18 – EM Plan	<b>Section 18.5.4.9 Control Strategies (page 18-87)</b> The proponent has provided sufficient information on this issue.	WAS has no further recommendations on this issue.	No action required.
18	Chapter 18 – EM Plan	<b>Section 18.5.4.9 Control Strategies (page 18-88)</b> The proponent has provided sufficient information on this issue.	WAS has no further recommendations on this issue.	No action required.
19	Chapter 18 – EM Plan	<b>Section 18.5.4.10 Monitoring Surface Water</b>  <b>C15.</b> Proposed Condition (D21) provides no information on the frequency of monitoring mine affected water in storage dams. Stock should not have access to dams containing hazardous waste. Condition (D21) [“(D21) In the event the water quality within any dam containing hazardous waste does not comply with the contaminant limits defined in Table 18-30, measures will be implemented to minimise access by stock to the dam.”] should be removed from the Proposed Environmental Authority Conditions: Schedule D – Water (Section 18.5.4.12; EM Plan; SEIS). Stock should not have access to dams containing hazardous waste.  <b>C16.</b> It is still important to monitor the quality of mine affected water in storage dams because this information can be used to (a) assess potential impacts to ground and surface waters (diffuse and point source emissions/release); (b) set release limits should mine affected water be released to surface waters, and (c) test the efficacy of mitigation and management measures to avoid and / or reduce impacts.	<b>R15.</b> Remove Condition (D21) from the Proposed Environmental Authority Conditions: Schedule D – Water (Section 18.5.4.12; EM Plan; SEIS).  <b>R16.</b> Mine affected water in storage dams should be monitored. A condition to monitor mine affected water in storages and / or a commitment to monitor mine affected water in the EM Plan should be sufficient. A detailed plan on how this monitoring will be carried out should be included within a Mine Affected Water Monitoring Plan or incorporate this information into the Water Quality Monitoring Plan.	Condition D21 has been removed.  Chapter 18 section 18.5.4.11 has been re-written with model conditions that provide for SCC's commitment to monitor WQ at dams, release point and in receiving environment. All changes are highlighted yellow.
20	Chapter 18 – EM Plan	<b>Section 18.5.4.12 Proposed Environmental Authority Conditions: Schedule D- Water Surface Water</b>  WAS are satisfied with the information supplied here.	WAS has no further recommendations on this issue.	No action required.
21	Chapter 18 – EM Plan	<b>Section 18.5.4.12 Proposed Environmental Authority Conditions: Schedule D - Water Surface Water</b>  <b>C17.</b> Given release of mine affected water to surface waters will be rare or highly unlikely then a controlled release of mine affected water condition will not be required in the EA.  <b>C18.</b> Condition (D21) is poorly written and needs to be reviewed	<b>R17.</b> In relation to the proposed condition (D15) - EHP requires that the inconsistencies on water management on site and discharge practices would be addressed – as per R6 above.  <b>R18.</b> Remove Condition (D21) from the Proposed Environmental Authority Conditions: Schedule D – Water (Section 18.5.4.12; EM Plan; SEIS). A condition to monitor mine affected water in storages and / or a commitment to monitor mine affected water	Please refer to response to issue #19 above. The updated section with model conditions for WQ includes a commitment to prepare a REMP. Relevant conditions added to the EM Plan below:  (D20) The environmental authority holder must develop and implement a Receiving Environment Monitoring Program (REMP) to monitor, identify and describe any adverse impacts to surface water environmental values, quality and flows due to the authorised mining

# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p>or removed.</p> <p><b>C19.</b> The Water Quality Monitoring Plan (WQMP), which is described in brief in the EM Plan section of the SEIS (pp18-19), shows that the proponent intends to conduct receiving environment monitoring throughout the life of the project. A requirement to conduct a receiving environment monitoring program (REMP) is usually also conditioned in the EA, especially where there is a potential for release of mine affected water to surface waters.</p> <p><b>C20.</b> The WQMP / REMP is only described in brief in the EM Plan section of the SEIS.</p>	<p>in the EM Plan should be sufficient, along with a detailed plan on how this monitoring will be carried out (a Mine Affected Water Monitoring Plan).</p> <p><b>R19.</b> We recommend adding a requirement to conduct a REMP in the EA. Conditions for monitoring of the receiving environment as per Model Mining Conditions (<a href="http://www.ehp.qld.gov.au/land/mining/pdf/model-mining-conditions-em944.pdf">http://www.ehp.qld.gov.au/land/mining/pdf/model-mining-conditions-em944.pdf</a>).</p> <p><b>R20.</b> The full details of the environmental monitoring to be carried out under the WQMP / REMP would need to be reviewed to ensure that the program is well designed enough to (a) to assess the potential impact of any release of mine affected water on EVs; (b) to test the accuracy of an environmental impact statement and whether management and mitigation measures are effective and (c) to set and / or amend release limits and trigger levels for specific water quality parameters and related conditions within an approval)</p>	<p>activity. This must include monitoring the effects of the mine on the receiving environment periodically (under natural flow conditions) and while mine affected water is being discharged from the site. For the purposes of the REMP, the receiving environment is the waters of the XX and connected or surrounding waterways within XX (for example, Xkm) downstream of the release. The REMP should encompass any sensitive receiving waters or environmental values downstream of the authorised mining activity that will potentially be directly affected by an authorised release of mine affected water.</p> <p>(D21) A REMP Design Document that addresses the requirements of the REMP must be prepared and made available to the administrating authority upon request.</p> <p>(D22) A report outlining the findings of the REMP, including all monitoring results and interpretations must be prepared annually and made available on request to the administrating authority. This must include an assessment of background reference water quality, the condition of downstream water quality compared against water quality objectives, and the suitability of current discharge limits to protect downstream environmental values.</p>

RTI DL Release





Reference: SCCMP aEIS

Department of  
Agriculture, Fisheries  
and Forestry

27 August 2013

Dr Monika Rhodes  
EIS Coordinator: Springsure Creek Coal Mine Project  
Statewide Environmental Assessments  
Department of Environment and Heritage Protection  
GPO Box 2454  
**BRISBANE QLD 4001**

Dear Dr Rhodes

I refer to your email of 15 August 2013 regarding the amended Environmental Impact Statement (EIS) for the Springsure Creek Coal Mine Project. Thank you for providing the Department of Agriculture, Fisheries and Forestry (DAFF) with the opportunity to review and comment on the amended EIS.

DAFF notes that the amended EIS considers the concerns identified and raised by DAFF in the advice to the Department of Environment and Heritage Protection dated 10 July 2013, and subsequent meetings between DAFF and the Proponent. These concerns included agricultural productivity (including productivity loss, farming systems costs and economic returns), continuity of agricultural land use and coexistence with resource development activities, the assessment of the cumulative impacts of the broader Springsure project, and biosecurity and fisheries matters.

The respective business areas across DAFF have reviewed the amended EIS and have advised that there are no outstanding issues. The Proponent has adequately acknowledged, addressed and identified approaches to resolve such concerns. On this basis, I write to advise that the Proponent undertakings, through commitments and processes as detailed in the amended EIS and associated materials, are acceptable to DAFF for the consideration of this project.

Could you please forward any future correspondence on this matter to the DAFF EIS Coordinator, Mr Ross Savage and also to the [daff\\_eis\\_unit@daff.qld.gov.au](mailto:daff_eis_unit@daff.qld.gov.au) mailbox.

Mr Savage's contact details are: DAFF EIS Coordinator  
Attention: Ross Savage  
Department of Agriculture, Fisheries and Forestry  
Primary Industries Building  
Level 6, 80 Ann Street  
Brisbane Qld 4000  
T: 07 3405 6535, F: 07 3239 3074  
E: [ross.savage@daff.qld.gov.au](mailto:ross.savage@daff.qld.gov.au)

Yours sincerely

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sch4p4(6) PER

**Elton Miller**  
**General Manager**  
**Strategic Policy and Planning**  
**Department of Agriculture, Fisheries and Forestry**

RTI DL Release

To: Peter Brisbane  
From: James Knowles and Paul Bonato  
CC:  
Date: 13-Aug-13  
Re: Summary of Abinia Fault Interpretations.

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Peter,

Some information to assist in supporting the view that the Albinia Fault is a basement feature, with little or no displacement:

**Text from Chapter 5 - Geology of the DFS (Bandanna, 2012):**

Structurally, the deposit is traversed by the underlying Albinia fault. The Albinia fault does not intersect or cause any vertical displacement of the coal seams in the Bandanna coal measures. However, significant thinning in the Aries 2 seam, as well as an increase in the raw ash content, is observed. This structure is therefore interpreted as a syn-depositional fault, or a monocline structure. In this report it will be referred to as the 'Albinia basement fault'.

**Text from the Geological and Geotechnical report (Australian Mining Engineering Consultants, May 2012):**

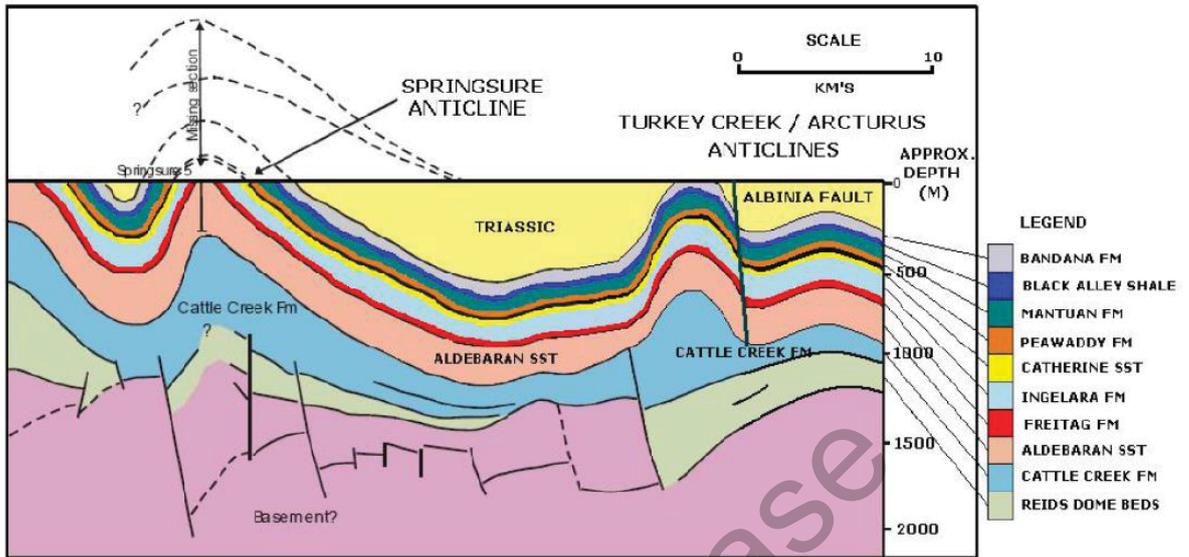
The Albinia Fault shown in Figure 1 is probably an indication of Aries 2 Seam thinning rather than being a distinct fault.

**Text from Bandanna Energy Springsure Creek Coal Project Coal Resource Estimate (Xenith, July 2013):**

The Albinia basement fault is located in the eastern part of the tenement and shows a NW-SE orientation. Considering that the fault appear to effect only the succession below the Bandanna Formation (approximately 300-350 m of depth), its extension and throw have not been fully established since seismic survey imaging is significantly reduced due to the basalt layers near surface. However, since geological and coal quality variations have been recognized along the fault line, it has used as the east boundary of the current resource area.

Structurally, there is no notable vertical displacement from one side of the fault to the other, but the drill hole data and geological modelling reveal a decrease in the Aries 2 seam thickness and increase in the raw ash content toward the Albinia basement fault. These variations along the fault line appear to indicate that the Albinia fault was active prior and probably during the time of deposition of the coal-bearing Bandanna Formation. This syn-depositional faulting may have caused a decrease in accommodation space, and therefore the reduced thickness and quality of the overlying coal intervals.

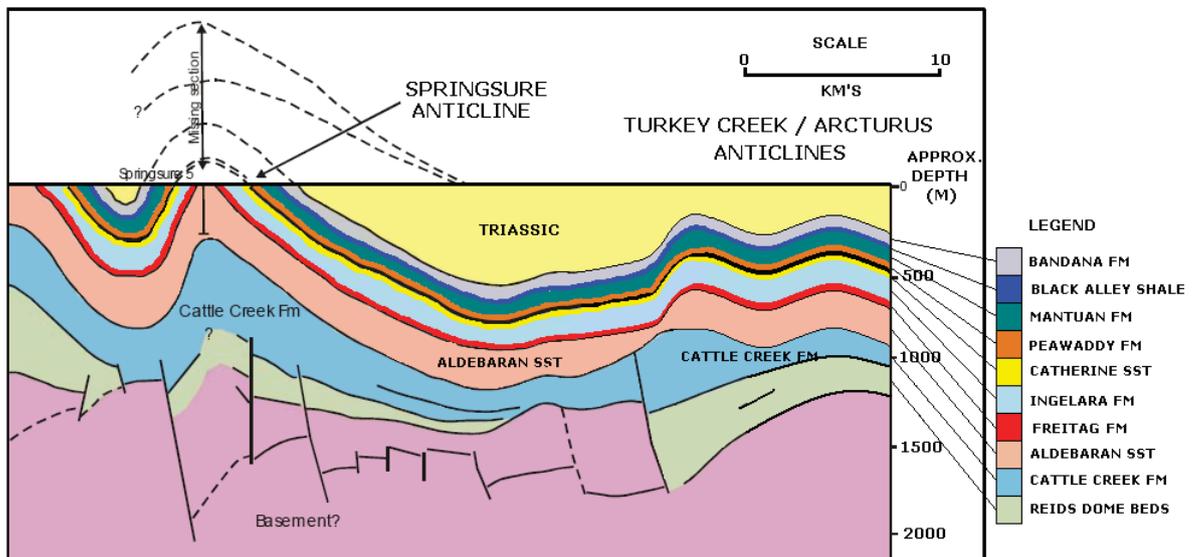
The following is the section that is currently found in the EIS document:



Further to the commentary above, I would add that the figure above shows very clearly that the Late Permian Bandanna Formation crops at surface just west of the Albinia Fault, which itself has facilitated an uplift and outcropping of the Permian strata. This clearly flies in the face of all evidence collected to date and most, if not all, interpretations of the geology of the area. We see nothing but Tertiary basalts and sediments at surface at Springsure Creek, in addition, there is always Rewan Formation found between the tertiary and Permian strata.

In short, I cannot account for the section and the interpretation of the geology it represents and I confirm that I cannot find a copy of the section on the network.

The following is the figure that I would propose we replace the current figure with. It clearly reflects the current interpretation that major faults within and adjacent to the tenure area are basement faults and do not intersect the Bandanna Formation and above. It also better reflects the strata thicknesses and depths that we have seen in all drilling to date in the Springsure Creek project area.



# Memorandum

Enquiries Eva Holt  
 Telephone (07) 3170 5557  
 Your reference Springsure Creek Coal Mine Project  
 Our reference WRNB ID 836  
 2/09/2013



**Queensland  
Government**

Department of  
**Science, Information  
 Technology, Innovation  
 and the Arts**

<b>To:</b>	<b>Monika Rhodes, Principal Environmental Officer</b> Statewide Environmental Assessments Department of Environment and Heritage Protection
<b>Through:</b>	<b>Dr Reinier Mann, Principal Environmental Officer</b>
<b>From:</b>	<b>Dr Eva Holt, Senior Environmental Officer</b> Water Assessment & Systems, Environmental Monitoring and Assessment, Science Delivery, Department of Science, Information Technology, Innovation and the Arts

**Subject: Springsure Creek Coal Mine Project SEIS Review – further comments**

Further to your work request dated 14/08/2013, the Water Assessment & Systems (WAS) group has reviewed information supplied by Bandana Energy at –

- [http://www.springsurecreekproject.com.au/assets/library/Springsure\\_Creek\\_Coal\\_EIS/Revised\\_EIS\\_Chapters/Addendum - Changes Made.pdf](http://www.springsurecreekproject.com.au/assets/library/Springsure_Creek_Coal_EIS/Revised_EIS_Chapters/Addendum_-_Changes_Made.pdf) - a link to a new addendum which lists all the changes made to the EIS since the June issue (Addendum to EIS)
- <http://www.springsurecreekproject.com.au/library> - a link to Revised EIS Chapters and Technical Reports

## General Comments:

In general the proponent has responded to and / or fulfilled the recommendations made by WAS. However, the proposed conditions for the releases need a little more work and some further monitoring data. WAS are aware that these are only draft conditions at the moment, but some important information is missing that would help derive the rate of mine affected water release and rate of stream flow discharge. The release rates for mine affected water are best informed by monitoring of water quality in the receiving environment at different flow rates, and require dilution modelling (informed by mine affected water quality) under different stream flow and mine affected water release scenarios.

**Note** that WAS would recommend removing condition D10 in favour of condition F10 from the Model Mining conditions (below; changes to Mine Model Conditions marked in red). For the calculation of the 80<sup>th</sup> percentile for electrical conductivity (EC), the most appropriate time period for sampling, and the sampling frequency will require careful consideration. This condition would also be a replication of the receiving environment monitoring program.

**“F10** The release of mine affected water to waters in accordance with condition **D2** must not exceed the Maximum Release Rate (for all combined release point flows) for each receiving water flow criterion for discharge specified in **Table 18-29 - Mine affected water release during flow events** when measured at the monitoring points specified in **Table 18-25 - Mine affected water release points, sources and receiving waters.**”

Please refer to specific comments below in the column

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Specific Comments

WAS Recommendation / Suggestion on EIS	Bandanna Energy Response	WAS Comments on SEIS	WAS Recommendations on SEIS	WAS Comment / Recommendations on SEIS
<b>Chapter 8 – Surface Water</b>				
<p><b>Recommendation:</b> It is recommended that baseline water quality assessments continue and be amended according to the issues identified above.</p> <p><b>[Issue: Section 8.4 and subsection relating to the Water Quality Assessment</b>  <i>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. 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</i></p>	<p>This submission was discussed between DSITIA, EHP and SCC on 1 May 2013 (as per minutes circulated between attendees). 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</p>	<p>The proponent response has largely fulfilled the recommendation made by WAS, however there is some issue with the details, including:</p> <p><b>C1.</b> The proponent should better incorporate any new data collected. For instance two of the four sites sampled in February coincide with sites already sampled in summer. How do these sampling events for the same site compare in water quality?</p> <p><b>C2.</b> There are no surface water survey site descriptions for the new sites that have not been sampled before, namely (a) Springsure Creek Inflow to Den-Lo Park Dam and (b) Upstream of the Project area on Unnamed Creek 4</p>	<p><b>R1.</b> Where any new data are collected it should be incorporated with data already collected, for example sites samples in February, 2013 have been sampled previously in summer and this data should be compared.</p> <p><b>R2.</b> A description should be included in Section 8.4.3.1 (Site Conditions) of any new sites.</p>	<ul style="list-style-type: none"> <li>Bandana Energy have added a “qualitative comparison of water quality results (dissolved heavy metals) between survey events” Addendum to EIS; p3] in response to recommendation <b>R1</b>. WAS would only suggest check for typos in paragraph added in Section 8.4.4.5 (Chapter 8; p8-34) paragraph i.e. “Cobalt ate a single site”. Future data comparison should also include Figures or Table (like Table 8-7, which compares 2011 and 2012 surveys) where data from different surveys are compared to support discussion and or conclusions in the text.</li> <li>The</li> </ul>

<p>downstream of the mine discharges in other sections of the EIS. 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". 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.]</p>	<p>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. 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. No discharges are proposed as part of the Project except</p>	<p>[NB February survey sites:          – Springsure Creek Inflow to Den-Lo Park Dam (<b>new site</b>);          – Upstream from the Project area on Springsure Creek (<b>site 5</b>);          – Upstream from the Project area on Station Creek (<b>site 2</b>) and,          – Upstream of the Project area on Unnamed Creek 4 (<b>new site</b>).]</p>	<p>proponent has added a description of new sites added to the water quality surveys in response to recommendation <b>R2</b>. The only further recommendations would be that site photos and or illustrations be included for each site in subsequent surveys that permit visualisation of the each site and any changes that occur at these sites over time. This is particularly important for subsidence sites and those sites expected to be affected by subsidence i.e. impacts such as erosion and scouring may be observed over time.</p>
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	<p>during major flood events, in which case contaminants will be diluted within receiving waters.</p>			
	<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><b>C3.</b> While an extended suite of water quality parameters have been analysed for the February, 2013 survey (4 sites) the proponent does not provide a clear list of what these additional parameters are in Chapter 8.  <b>C4.</b> Some water quality objectives are missing from Table 8-8 (pp8-32 – 8-33; Chapter 8; SEIS).</p>	<p><b>R3.</b> Include a list of additional water quality parameters included in the February, 2013 survey in Section 8.4.3.2 (Water Quality and Sediment Sampling Method).  <b>R4.</b> Update Table 8-8 (pp8-32 – 8-33; Chapter 8; SEIS) to include all WQOs</p>	<ul style="list-style-type: none"> <li>No updates have been provided in response to recommendation <b>R3</b>. Future descriptions of all water quality monitoring should be clear and concise and list all water quality parameters and associated meta-data, especially if parameters monitored vary between surveys.</li> <li>All WQOs for metals are now included (in Table 8-8 of Chapter 8) in response to recommendation R4. However, the origin of some of these WQOs is not clear. Upon checking the WQO values in column 2 of Table 8-8, it appears that the WQOs for copper, cobalt, lead, selenium, uranium and vanadium are</li> </ul>

	<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.) Chapter 8 of the EIS has been updated accordingly.</p>			<p>inconsistent with the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC &amp; ARMICANZ 2000). For example, selenium WQO should be 0.005 mS/cm. If laboratory limits of reporting have been substituted for some of the contaminants where the WQO is low, then please make this clear in the table notes.</p>
	<p>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)</p>	<p><b>C5.</b> The reference to the information on surface water monitoring criteria in Chapter 18 is not specific enough.</p>	<p><b>R5.</b> The proponent should refer to specific section(s) of Chapter 18 mentioned in the following: <i>“surface water monitoring criteria are thus to be announced as per Chapter 18”</i></p>	<p>Some new proposed conditions have been added to Chapter 18 regarding receiving environment monitoring and contaminant trigger levels. Below, we have provided further comments on the Environmental Management Plan (EMP) (Chapter 18 of the EIS).</p>

	<p>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.</p>			
<p><b>Recommendation:</b> It is recommended that potential impacts to aquatic ecosystem from reduced stream flow volumes are adequately assessment [sic] and presented in the SEIS.</p> <p><b>[Issue: Section 8.5.6 Stream Flows</b>  <i>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.]</i></p>	<p>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.</p>	<p>The proponent does discuss the subsidence as potentially reducing connectivity and impacting stream flow within and downstream of the project area (including a wetland protection area) with potential impacts to aquatic flora and fauna (Table 12-19). The risk level is considered medium (Table 12-19). Subsidence management measures are also outlined (Section 12.7.10) and these should decrease the risk of impacts from the predicted decrease in flow in Springsure</p>	<p>No further recommendations.</p>	<p>No further recommendations.</p>

		<p>Creek if carried out appropriately. The proponent has committed to ongoing monitoring of streams and wetlands downstream for subsidence related impacts (Section 12.7.11) throughout the construction; operational phases and decommissioning phases of the mine.</p>		
<p><b>Recommendation:</b> 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.</p> <p><b>[Issue: Chapter 8 Surface Water Table 8-13</b> <i>Potential impacts to surface water, clearly states that a no controlled release policy will be in place during the operation of</i></p>	<p>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</p>	<p><b>C6.</b> There is still inconsistent information in the SEIS regarding whether there will be a controlled discharge from dams. For example, the proponent has not updated point 3 under the heading of “Mobilisation of contaminants” [p18-99; Chapter 17; SEIS]. If there will be not controlled discharges from dams then this point should be removed from the text.</p>	<p><b>R6.</b> The proponent should remove point 3 under the heading of “Mobilisation of contaminants” [p18-99; Chapter 17; SEIS] because they have made it clear that there will be no controlled discharges from dams.</p>	<p><b>WAS note</b> that this was meant to refer to Chapter 18 and not 17. The proponent has changed text in Chapter 18 from: - “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” [point 3; p18-100; Chapter 18; SEIS] to - “All releases from dams will only be</p>

<p>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.]</p>	<p>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</p>			<p>undertaken in the event water quality parameters of source and receiving waters, as well as flows within receiving waters, are in accordance with the relevant guidelines" [point 3; p18-98; Chapter 18; Addendum to EIS]                  This makes it clear where the proponent wishes to release water from and under what conditions. No further recommendations.</p>
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	<p>for operations, water quality and quantity monitoring, and stormwater management, etc.</p>			
<p><b>Recommendation:</b> 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><b>[Issue: Chapter 8</b>  <i>During the information session presented on 12th April, the proponents mentioned that;</i></p> <ul style="list-style-type: none"> <li>• <i>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).</i></li> <li>• <i>During construction, overburden is proposed to be re-used for the construction of roads and dams, where possible.</i></li> <li>• <i>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. In contrast to this Table 8-13 mentions that "Erosion and</i></li> </ul>	<p>Reference to a coal processing plant has been removed from the final EIS as this is not required. Overburden from the construction of a cut and cover and the drift will be recycled to provide construction material onsite. No overburden will be stored on site in a waste rock or tailings storage facility. 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>	<p>The response provides sufficient information to understand that overburden will not be stockpiled on site, yet there will be coal stockpile during the mine operation. Erosion and stormwater runoff from the coal stockpile is listed as a potential cause of impacts to surface water (sedimentation and contamination) during the operation phase of the project.</p>	<p>No further recommendations.</p>	<p>No further recommendations.</p>

<p>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><b>General Water Management Strategy</b></p>				
<p><b>Recommendation:</b> 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><b>[Issue: General Water Management Strategy</b> There are major concerns</p>	<p>Please refer to response above regarding water management. The proposal does not include any controlled discharges. 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>	<p><b>C7.</b> The proponent has added information that there will be not controlled discharge of mine wastewater to surface water and that uncontrolled release will be rare and restricted to high rainfall events. The proponent needs to ensure that all references to controlled discharge in the SEIS are removed.</p>	<p><b>R7.</b> Ensure all reference to controlled discharge is removed from the SEIS.</p>	<p>This issue was discussed in the meeting on the 29/07/2013. The proponent has updated reference to controlled release in Chapter 8 accordingly. Further comments on Chapter 18 (EMP; Addendum to EIS) below.</p>

<p>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 mean 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</p>				
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<p><i>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.</i></p> <p><i>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</i></p>				
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<p>during an uncontrolled discharge is not necessarily the case. 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>				
<p><b>EIS and Environmental Management Plan (Chapter 18)</b></p>				
<p><b>Recommendation:</b> 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><b>[Issue: Section 12 Environmental Management Plan</b> 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</p>	<p>This figure has been updated.</p>	<p><b>C8.</b> Figure 18-11 in Chapter 18 of the EIS is now Figure 18-12 in Chapter 18 of the SEIS. Figure does not appear to show any new information when compared to Figure 18-11. The proponent should indicate (what information has been added) how the figure has been updated apart from the numbering.</p>	<p><b>R8.</b> The proponent should say what has been updated in Figure 18-12 (Chapter 18) of the SEIS.</p>	<p>This issue was discussed in the meeting on the 29/07/2013. Bandana Energy has sent an updated map to WAS via email (Tue 30/07/2013 2:16 PM; From Pete Jones) showing changes on the Figure (circled in red). This map has also been included in Figure 18-12; p18-83 (Chapter 18; Addendum to EIS). No further recommendations.</p>

<p>mapped in the EIS. Downstream wetlands are also important to identify and consider given the changes to flows anticipated due to subsidence.]</p>				
<p><b>Recommendation:</b> 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><b>[Issue: Section 12.8 Mitigation Measures</b>  <i>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).]</i></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>	<p>Wording in dot point 5; p12-106; Section 12.7.8 (formerly 12.8.8) of Chapter 12 has been changed to “<i>The redirection of all mine affected runoff and mine affected waters are made to appropriately managed dams which have been designed to be above the 1:1000 year ARI level</i>”</p> <p>It is also apparent from the EMP (Chapter 18) of the SEIS that mine dewatering water (from groundwater inflows) will be stored in dams with a potential for uncontrolled discharge or vertical infiltration of contaminants from dams to water table aquifer.</p> <p><b>C9.</b> Not all of the performance criteria associated with potential groundwater impacts from groundwater inflow and</p>	<p><b>R9.</b> Review the performance criteria for ground and surface water impacts and ensure all environmental protection commitments are measurable and auditable</p>	<p>No further recommendations.</p>

		<p>disposal/removal (e.g. in italics below) are measurable and should be reconsidered.  <i>“all valid groundwater complaints from down gradient users will be taken seriously and investigated in accordance with Project investigation procedures”</i>                  Without measureable performance criteria it will be difficult to assess impacts and / or efficacy of mitigation and management measures.</p>		
<p><b>Recommendation:</b> 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><b>[Issue: Section 12.8 Mitigation Measures</b>  <i>The proponents state in Section 12.8 Mitigation Measures 12.8.8 Accidental Release of Pollutants that “The discharge of wastewater and</i></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</p>	<p><b>C10.</b> The proponent not only need to ensure that they have a good characterisation of water in the receiving environment but will also need to characterise the quality of mine affected water that may be discharged and under what conditions (if there is natural stream discharge at the time of mine affected water release then potential contaminants will be diluted to some extent) to the environment before they can</p>	<p><b>R10.</b> More information would be required on the quality of mine affected water that may be released and under what scenarios or conditions this water would be released in order for the proponent to justify the statement <i>“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”</i></p>	<p>Section 18.5.4.12 has been updated to include proposed conditions around wastewater release. These conditions are more in line with <a href="#">Model Mining Conditions</a>. As little is known of mine affected water quality, the compounds in Table 18-28 should be monitored end-of-pipe, with potential for revision of water quality characteristics depending on results of monitoring. The</p>

<p><i>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 water quality onsite has been undertaken. Without presentation of this estimated water quality it is unclear how this statement can be scientifically justified.]</i></p>	<p>the system. This has been discussed in Chapter 8 - Surface Water.</p>	<p>understand the potential impacts of mine affected water release (controlled or uncontrolled) to the receiving environment.</p>	<p></p>	<p>proponent should consider results of baseline water quality monitoring in proposing trigger levels in Table 18-28, especially for contaminants that are already shown to exceed WQOs in Tables 8-8 and 8-9 (pp8-31 – 8-33; Chapter 8; Addendum to EIS)</p>
<p><b>Recommendation:</b> 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”. 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</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. 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</p>	<p>The proponent has added more detail on potential impacts to surface and groundwater EVs, and proposed control strategies to Sections 18.5.4.6 and 18.5.4.9 of the SEIS, respectively. Included in Section 18.5.4.9 of the SEIS is some broad information on the monitoring program to be implemented to; (a) “supplement the water management strategy to confirm that any potential uncontrolled discharges (overflows from the Environmental Dams) do not adversely impact on downstream water</p>	<p><b>R11.</b> Where possible measure local stream flow data rather than estimating it. <b>R12.</b> Provide greater detail within a Mine Affected Water Monitoring Plan or incorporate this information into the Water Quality Monitoring Plan.</p>	<p>No further recommendations.</p>

<p>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><b>[Issue: Environmental Management Plan : Section 18.5.4.6 Potential Impacts on Environmental Values (page 18-84)]</b></p> <p><i>The potential impacts to surface waters identified by the proponents during the operational phase are listed as:</i></p> <p><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><i>Yet in the groundwater section (page 18-85) a more descriptive assessment of potential impacts to <u>surface waters</u> is presented.</i></p> <p><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 results from uncontrolled discharge into the surrounding</i></p>	<p>this EIS.</p>	<p><i>quality”, and</i></p> <p><i>(b) “serve as a continual improvement mechanism for the ongoing management of stormwater including operational calibration of the water balance mode”</i></p> <p><b>C11.</b> According to sub-point 3 p18-101; Chapter 18; SEIS (“<i>Relevant water quality parameters, including physico-chemical and estimation of local stream flow;</i>”) local stream flow data will be estimated rather than measured.</p> <p><b>C12.</b> Very limited detail is provided in Section 18.5.4.9 (EMP section of the SEIS) on the intended monitoring of mine affected water in storages. This information is integral in determining the potential impacts should mine affected water be released. This information would also be used to set release limits and / or trigger values should the mine</p>		
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<p>waterways...”  <i>In general however, the descriptions and assessment presented in this section of the EIS is not considered adequate. The ToR clearly require;</i>  <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>  <i>and</i>  <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>  <i>and</i></p>		<p>affected water ever be released to surface waters.</p>		
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<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.” and</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><b>Recommendation:</b> 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><b>[Issue: Environmental Management Plan : Section</b></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</p>	<p><b>C13.</b> The proponent has not fully addressed the recommendation. There is a combination of information that is used in the site specific assessment of potential impacts and to quantitatively assess the efficacy of impact</p>	<p><b>R13.</b> Scheduled environmental values and water quality objectives for the region (attached) where the project occurs are as important as baseline monitoring data and should also be considered in impact assessment. EVs and the objects used to protect or enhance these values should be detailed in the EIS and EMP. There are Scheduled EVs for surface and groundwater flow and Scheduled WQOs for flow objectives in high ecological value waters. Regional surface and</p>	<p>This issue has already been discussed in the meeting on the 29/07/2013. The proponent has indicated that all relevant Scheduled WQOs were included in the SEIS. Monika</p>

<p><b>18.5.4.7 Environmental Protection Objectives (page 18-85)</b>  <i>The environmental protection objectives listed for water resources are scarce and apart from protecting agricultural use the only objective listed is as follows: "Maintain chemical, physical and biological properties of existing water resources within acceptable parameters"</i>  <i>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.</i>  <i>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</i></p>	<p>additional monitoring will determine specific trigger values appropriate to the context of the Project.</p>	<p>mitigation and management measures. Initially, environmental values and objectives to protect or enhance these values should be identified. WAS wish to reiterate that while the baseline water quality monitoring information is important the Scheduled environmental values and water quality objectives for the region (attached) should also be considered in impact assessment.</p>	<p>groundwater flow objectives should also be taken into account (Queensland Government, 2011).</p>	<p>has emailed the proponent on Wed 7/08/2013 9:42 AM regarding this issue. Email text below:  <i>"Dear Pete</i>   <i>DSITIA (Water Assessment and Systems (WAS)) informed me that Bandanna Energy (the proponent) has provided a satisfactory response to their (WAS') recommendations listed below.</i>   <i>Following the meeting with DSITIA and EHP, WAS confirmed that the proponent has included the Scheduled WQOs for the Comet River in the SEIS (in their assessment/summary of baseline monitoring data for the Springsure Project - Table 8-7 and 8-8 in Chapter 8 of the SEIS).</i>   <i>Some of the metals WQOs were missing but that was probably</i></p>
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<p><i>local surface waterways and aquatic ecosystems and detail the spatial location of all relevant EVs (mapping).]</i></p>				<p><i>due to low reliability trigger values (ANZECC &amp; ARMCANZ 2000) for these metals. WAS would utilise these low reliability trigger values for comparison with baseline water quality data.</i></p> <p><i>On the baseline water quality monitoring – the SEIS indicates that the proponent would continue with their current water quality monitoring with the goal to developing trigger values. This information would also be essential in helping to determine whether the mine causes impacts to water quality.</i></p> <p><i>The proponent has referred to (Fitzroy Basin) Plan 2011 (Fitzroy WRP). This document will also give some guidance on flow objectives for the region. Having local flow objectives informed by</i></p>
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				<p><i>monitoring programs is also useful especially for wetlands that are particularly sensitive to increases and decreases in flow.</i></p> <p><i>If you have any further questions, please don't hesitate to contact me.</i></p> <p><i>Regards Dr Monika Rhodes"</i></p>
<p><b>Recommendation:</b> It is recommended that the proponent makes the suggested alteration listed above.</p> <p><b>[Issue: Environmental Management Plan: Section 18.5.4.8 Performance Criteria (page 18-85)]</b>  <i>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 ;</i></p>	<p>Section 18.5.4.8 has been amended as recommended.</p>	<p>The proponent has fulfilled the recommendations made by WAS.</p>	<p>No further recommendations.</p>	<p>No further recommendations.</p>



<p>....</p> <p>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”. Given that the main Performance Criteria is based on compliance with the EA, the EA will need to be designed in such a way to protect the receiving waters and associated environmental values environment. As it stands the current proposed EA does not achieve these aims.</p> <p>It is not a performance criteria to “<u>develop</u> a monitoring program and trigger values” rather, it would be a performance criteria to “adequately monitor and <u>maintain</u> water quality within receiving waters in order to meet the Water Quality Objectives (WQOs) for identified environmental values”.</p> <p>It is unclear how a “quantity of complaints” is an adequate environmental performance criteria. By this criteria in the current EIS, if a small number of complaints are received regarding the projects impact on down-gradient groundwater</p>				
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<p>users, then the site is “performing” adequately. We would suggest that any and all complaints should be considered seriously.]</p>				
<p><b>Recommendation:</b> 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</p> <p><b>[Issue: Environmental Management Plan: Section 18.5.4.9 Control Strategies (page 18-87)]</b>  <i>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</i></p>	<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.</p>	<p><b>C14.</b> It is not usual to condition for an uncontrolled release, especially if the release will be rare or unlikely to occur at all during the lifetime of the project. In instances where an uncontrolled release is foreseeable the proponent may apply for a Temporary Emissions Licence (TEL). The information collected to characterise baseline surface water quality and the quality of mine affected water in storage dams monitoring would be useful in this application. There would also be some monitoring requirements under the TEL.</p>	<p><b>R14.</b> Consider removing Condition D15, which conditions the uncontrolled release of mine affected water, to surface waters given that uncontrolled release of mine affected water is highly unlikely (only occurs in extreme weather events).</p>	<p>There are new proposed conditions for mine affected water release that are more in line with the Model Mine Conditions. The condition D15 proposed in the SEIS has been removed from the Addendum to EIS. WAS have no further recommendations on this issue.</p>



<p><i>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, 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.]</i></p>				
<p><b>Recommendation:</b> 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</p>	<p>The proponent has provided sufficient information on this issue.</p>	<p>WAS have no further recommendations on this issue.</p>	<p>WAS have no further recommendations on this issue.</p>

<p><b>[Issue: Issue: Environmental Management Plan : Section 18.5.4.9 Control Strategies (page 18-87)</b>  <i>The proponents [sic] “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” 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.]</i></p>	<p>Sunwater’s Nogoa–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. 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>			
<p><b>Recommendation:</b> 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</p>	<p>A detailed monitoring plan is currently being developed. Please refer to Chapter 18, Section 18.5.4.10</p>	<p>The proponent has provided sufficient information on this issue.</p>	<p>WAS have no further recommendations on this issue.</p>	<p>WAS have no further recommendations on this issue.</p>



<p>including;</p> <ul style="list-style-type: none"> <li>• 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).</li> <li>• 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.</li> <li>• 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.</li> <li>• A minimum of 10 data points, but preferably 24 data points should be used and collected over a minimum of 12-18 months, and be</li> </ul>				
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<p>representative of all seasons;</p> <ul style="list-style-type: none"> <li>All data used to determine locally-derived trigger values should be presented in electronic format for review by DEHP or DSITIA</li> </ul> <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><b>[Issue: Section Environmental Management Plan: Section 18.5.4.9 Control Strategies (page 18-88)]</b>  <i>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 20<sup>th</sup> and 80<sup>th</sup> percentiles identified through baseline investigations which will be further undertaken prior to</i></p>				
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<p>construction”                  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><b>Recommendation:</b> The issues listed should be addressed in the relevant sections of the EIS</p> <p><b>[Issue: Section 18.5.4.10 Monitoring Surface Water</b>                  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 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 exceedence is likely to be Project area</p>	<p>Condition D21 provides for the monitoring of water storage quality.</p>	<p><b>C15.</b> Proposed Condition (D21) provides no information on the frequency of monitoring mine affected water in storage dams. Stock should not have access to dams containing hazardous waste. Condition (D21) [“(D21) In the event the water quality within any dam containing hazardous waste does not comply with the contaminant limits defined in Table 18-30, measures will be implemented to minimise access by stock to the dam.”] should be removed from the Proposed Environmental Authority Conditions: Schedule D – Water (Section 18.5.4.12;</p>	<p><b>R15.</b> Remove Condition (D21) from the Proposed Environmental Authority Conditions: Schedule D – Water (Section 18.5.4.12; EMP; SEIS).  <b>R16.</b> Mine affected water in storage dams should be monitored. A condition to monitor mine affected water in storages and / or a commitment to monitor mine affected water in the EMP should be sufficient. A detailed plan on how this monitoring will be carried out should be included within a Mine Affected Water Monitoring Plan or incorporate this information into the Water Quality Monitoring Plan.</p>	<ul style="list-style-type: none"> <li>• There are new proposed conditions for mine affected water release that are more in line with the Model Mine Conditions. The condition D21 proposed in the SEIS has been removed from the Addendum to EIS. WAS have no further recommendations on issue <b>C21</b>.</li> <li>• The proponent has not sufficiently addressed recommendation <b>R16</b>. There should still be a plan to monitor mine affected water in both environmental and mine water dams not just during releases.</li> </ul>

<p><i>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.]</i></p>		<p>EMP; SEIS). Stock should not have access to dams containing hazardous waste.  <b>C16.</b> It is still important to monitor the quality of mine affected water in storage dams because this information can be used to (a) assess potential impacts to ground and surface waters (diffuse and point source emissions/release); (b) set release limits should mine affected water be released to surface waters, and (c) test the efficacy of mitigation and management measures to avoid and / or reduce impacts.</p>		
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<p><b>Recommendation:</b> 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. 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</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>	<p>WAS are satisfied with the information supplied here.</p>	<p>WAS have no further recommendations on this issue.</p>	<p>WAS have no further recommendations on this issue.</p>
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<p>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><b>[Issue: Section 18.5.4.12 Proposed Environmental Authority Conditions: Schedule D- Water Surface Water</b></p> <p><i>The proponents propose the following conditions;</i>  <i>“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</i></p>				
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<p><i>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]</i></p>				
<p><b>Recommendation:</b> 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</p>	<p>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.</p>	<p><b>C17.</b> Given release of mine affected water to surface waters will be rare or highly unlikely then a controlled release of mine affected water condition will not be required in the EA. <b>C18.</b> Condition (D21) is poorly written and needs to be reviewed or removed.</p>	<p><b>R17.</b> As advised above consider removing Condition D15, which conditions the uncontrolled release of mine affected water to surface waters given that uncontrolled release is highly unlikely. <b>R18.</b> Remove Condition (D21) from the Proposed Environmental Authority Conditions: Schedule D – Water (Section 18.5.4.12; EMP; SEIS). A condition to monitor mine affected water in storages and / or a commitment to monitor mine affected water in the EMP should be sufficient, along with a detailed plan on how this monitoring will be carried out (a Mine Affected Water Monitoring Plan).</p>	<ul style="list-style-type: none"> <li>There are new proposed conditions for mine affected water release that are more in line with the Model Mine Conditions. The conditions D15 and D21 proposed in the SEIS has been removed from the Addendum to EIS. WAS have no further</li> </ul>

<p>conditions regarding waters. Significant revision is required for the proposed EA.</p> <p><b>[Issue: Section 18.5.4.12 Proposed Environmental Authority Conditions: Schedule D- Water Surface Water</b></p> <p><i>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".]</i></p>		<p><b>C19.</b> The Water Quality Monitoring Plan (WQMP), which is described in brief in the EMP section of the SEIS (pp18-19), shows that the proponent intends to conduct receiving environment monitoring throughout the life of the project. A requirement to conduct a receiving environment monitoring program (REMP) is usually also conditioned in the EA, especially where there is a potential for release of mine affected water to surface waters.</p> <p><b>C20.</b> The WQMP / REMP is only described in brief in the EMP section of the SEIS.</p>	<p><b>R19.</b> We recommend adding a requirement to conduct a REMP in the EA. Conditions for monitoring of the receiving environment as per Model Mining Conditions (<a href="http://www.ehp.qld.gov.au/land/mining/pdf/model-mining-conditions-em944.pdf">http://www.ehp.qld.gov.au/land/mining/pdf/model-mining-conditions-em944.pdf</a>).</p> <p><b>R20.</b> The full details of the environmental monitoring to be carried out under the WQMP / REMP would need to be reviewed to ensure that the program is well designed enough to (a) to assess the potential impact of any release of mine affected water on EVs; (b) to test the accuracy of an environmental impact statement and whether management and mitigation measures are effective and (c) to set and / or amend release limits and trigger levels for specific water quality parameters and related conditions within an approval)</p>	<p>recommendations on issue <b>C17</b> and <b>C18</b>.</p> <ul style="list-style-type: none"> <li>The proponent has included proposed conditions for a REMP in response to recommendation <b>R19</b>. WAS have no further recommendations.</li> </ul> <p><b>Note</b> that as per recommendation <b>R20</b> - the full details of the environmental monitoring to be carried out under the WQMP / REMP would need to be reviewed to ensure that the program design is adequate enough to (a) to assess the potential impact of any release of mine affected water on EVs; (b) to test the accuracy of an environmental impact statement and whether management and mitigation measures are effective, and (c) to set and / or amend release limits and trigger levels for</p>
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				specific water quality parameters and related conditions within an approval)
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## **References**

DERM (2011) *Environmental Protection (Water) Policy 2009 Comet River Sub-basin Environmental Values and Water Quality Objectives Basin No. 130 (part), including all waters of the Comet River Sub-basin September 2011*, Department of Environment and Resource Management, Brisbane:

[http://www.ehp.qld.gov.au/water/policy/pdf/plans/fitzroy\\_comet\\_river\\_wqo\\_290911](http://www.ehp.qld.gov.au/water/policy/pdf/plans/fitzroy_comet_river_wqo_290911)

Queensland Government (2011) *Water Resource (Fitzroy Basin) Plan 2011*, Queensland Government, Brisbane:

<http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/W/WaterReFBP11.pdf>

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## Phillips Erin

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**From:** Rhodes Monika  
**Sent:** Thursday, 15 August 2013 9:44 AM  
**To:** 'Pete Jones'  
**Cc:** Rowland Philip  
**Subject:** RE: SCC EIS submission

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Pete

EHP acknowledges receipt of the amended EIS and the proponent response to EHP's submission (electronic and hard copies).

EHP has until 11 September 2013 to make a decision under section 56A(2) of the *Environmental Protection Act 1994* whether to allow the submitted EIS to proceed under divisions 5 and 6 (to the next stage, the EIS assessment report).

Thanks also for the offer to talk though the updated documents. I will go through the amended EIS and responses now and will contact you if I have any questions. So far it looks all straight forward.

Regards

Dr Monika Rhodes  
Principal Environmental Officer  
Statewide Environmental Assessments  
**Telephone** 07 3330 6293 **Facsimile** 3330 5875  
**Email:** [monika.rhodes@ehp.qld.gov.au](mailto:monika.rhodes@ehp.qld.gov.au)  
[www.ehp.qld.gov.au](http://www.ehp.qld.gov.au)

Department of Environment and Heritage Protection  
Level 9, 400 George Street, Brisbane Q 4000  
GPO Box 2454, Brisbane Q 4001

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**From:** Pete Jones [mailto:[PeteJones@bandannaenergy.com.au](mailto:PeteJones@bandannaenergy.com.au)]  
**Sent:** Thursday, 15 August 2013 9:03 AM  
**To:** Rhodes Monika  
**Subject:** RE: SCC EIS submission

Hi Monika,

I am free all day if you would like me to walk over and talk through the updated doc? Wouldn't need more than 30 mins to and hour...

Thanks

Pete

**Pete Jones**  
*Environmental Approvals Coordinator*  
**BANDANNA ENERGY LIMITED**

Telephone No: 07 3041 4400  
Direct No: 07 3041 4434  
Fax No: 07 3041 4444  
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**From:** Rhodes Monika [<mailto:Monika.Rhodes@ehp.qld.gov.au>]  
**Sent:** Thursday, 15 August 2013 7:15 AM  
**To:** Pete Jones; Holt Eva; Mann Reinier  
**Cc:** Jen Mason  
**Subject:** RE: SCC EIS submission

Thanks, Pete

I will check through all the documents and will reply officially.

Regards

Dr Monika Rhodes  
Principal Environmental Officer  
Statewide Environmental Assessments  
**Telephone** 07 3330 6293 **Facsimile** 3330 5875  
**Email:** [monika.rhodes@ehp.qld.gov.au](mailto:monika.rhodes@ehp.qld.gov.au)  
[www.ehp.qld.gov.au](http://www.ehp.qld.gov.au)

Department of Environment and Heritage Protection  
Level 9, 400 George Street, Brisbane Q 4000  
GPO Box 2454, Brisbane Q 4001

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**From:** Pete Jones [<mailto:PeteJones@bandannaenergy.com.au>]  
**Sent:** Tuesday, 13 August 2013 3:36 PM  
**To:** Holt Eva; Mann Reinier; Rhodes Monika  
**Cc:** Jen Mason  
**Subject:** SCC EIS submission  
**Importance:** High

Hi Monika, Eva, Rainer,

Please find attached our response to your comments on the SCC EIS as per our recent discussions.

The updated EIS can be accessed from our project website with all changes highlighted in yellow within the document: <http://www.springsurecreekproject.com.au/project-development-and-approvals/springsure-creek-coal-mine-eis>

The webpage also includes a link to a new addendum which lists all the changes made to the EIS since the June issue:  
[http://www.springsurecreekproject.com.au/assets/library/Springsure\\_Creek\\_Coal\\_EIS/Revised\\_EIS\\_Chapters/Addendum - Changes Made.pdf](http://www.springsurecreekproject.com.au/assets/library/Springsure_Creek_Coal_EIS/Revised_EIS_Chapters/Addendum_-_Changes_Made.pdf)

We trust your concerns are fully addressed and thank you for your inputs to the Project to date.

Thanks,  
Pete

**Pete Jones**

*Environmental Approvals Coordinator*

**BANDANNA ENERGY LIMITED**

Telephone No: 07 3041 4400

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Email: [petejones@bandannaenergy.com.au](mailto:petejones@bandannaenergy.com.au)

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## Phillips Erin

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**From:** Pete Jones <PeteJones@bandannaenergy.com.au>  
**Sent:** Tuesday, 13 August 2013 3:39 PM  
**To:** Savage Ross  
**Cc:** Reed Annette; Draper Ian; Rhodes Monika; Jen Mason  
**Subject:** FW: SCC EIS submission  
**Attachments:** DAFF (1) Response to initial comments.pdf; DAFF (2) comments (26-07-2013).pdf

**Importance:** High

Hi Ross,

Please find attached our response to your comments on the SCC EIS as per our recent discussions.

The updated EIS can be accessed from our project website with all changes highlighted in yellow within the document: <http://www.springsurecreekproject.com.au/project-development-and-approvals/springsure-creek-coal-mine-eis>

The webpage also includes a link to a new addendum which lists all the changes made to the EIS since the June issue:  
[http://www.springsurecreekproject.com.au/assets/library/Springsure\\_Creek\\_Coal\\_EIS/Revised\\_EIS\\_Chapters/Addendum - Changes Made.pdf](http://www.springsurecreekproject.com.au/assets/library/Springsure_Creek_Coal_EIS/Revised_EIS_Chapters/Addendum_-_Changes_Made.pdf)

We trust your concerns are fully addressed and thank you for your inputs to the Project to date.

Thanks,  
Pete

### **Pete Jones**

*Environmental Approvals Coordinator*  
**BANDANNA ENERGY LIMITED**

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# Springsure Creek Coal Mine Project

## Response to comments on final EIS



### Department of Agriculture, Fisheries and Forestry

Issue	Topic	Comment	Recommendation / Suggestion	Response
1	Chapter 5 - Land	<p><b>1. (s5.4.6, p5-12)</b> In response to DAFF's EIS submission no 18.16, the information in this section contains generalised descriptions of farm practices in the Central Highlands, but does not provide specific data on the Project area (RS)</p> <p><b>2. (s5.7.5, p5-76)</b> The application of appropriate legislation where chemical control is the proposed mitigation measure for weeds. Herbicides such as flupropanate used to control invasive grasses like tussock, Paramatta, Giants rats tail, Chilean needle and African lovegrass, have long withholding periods and put obligations on landholders to move livestock to clean feed prior to slaughter. (BQ)</p>	<p>1. As previously requested, the EIS should address the full requirements if the 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 agricultural activities.</p> <p>2. The EIS should ensure that the Project is compliant with both the <i>Chemical Usage (Agricultural and Veterinary) Control Act 1988</i> (use controls) and <i>Agricultural Chemicals Distribution Controls Act 1966</i> (licencing controls) to ensure that use of agricultural chemicals or other industrial chemicals does not have an adverse impact on human health, trade or the environment through contamination of agricultural produce. <b>Note:</b> It is essential that landholders are involved in consultation on uses of herbicides to ensure that appropriate risk management actions can be implemented where stock could be exposed.</p>	<p>1. <b>Chapter 5 Land s.5.4.7</b> was added to the final EIS to provide an overview of agricultural practices within the Project area itself. This was based on information provided by Custom Farm Management Pty Ltd. Specific data on activities on each property within the Project area would require the landholders' disclosure of this commercially sensitive information which was not available at the time of the EIS (and indeed is perhaps not appropriate for publication within the EIS).</p> <p><b>SS.4.2</b> of the EIS was updated to provide an agricultural impact assessment based on requirements of the TOR and the information presented in <b>s.5.4.7</b>.</p> <p>SCC is working with all affected landholders to manage the impacts of mining on agricultural activities. Please refer to our responses to DAFF's additional comments on separate sheet for additional information.</p>
2	Chapter 7 – Waste Management	<p><b>Table 7-2, p7-10</b> With reference to the management methods for mulching of green waste, this section does not mention plant species that are declared under the <i>Land Protection (Pest and Stock Route Management) Act 2000</i> or declared species under local government laws.</p>	<p>Species that are declared under the <i>Land Protection (Pest and Stock Route Management) Act 2000</i> or declared species under local government laws need to be identified in the survey to guide best practice management and disposal of weeds.</p>	<p><b>Chapter 7 Waste, Table 7-2, p7-10 and Chapter 18 EM Plan, Table 18-34, p125</b> has been amended to include the reference highlighted in yellow below.</p> <p>"Mulching of waste vegetation/timber by reuse on-site during rehabilitation Disposal of weeds by a licensed contractor.</p> <p>A weed survey will be undertaken to identify and (if found) manage the site of any Weeds of National Significance (WoNS), including those declared under the <i>Land Protection (Pest and Stock Route Management) Act 2002</i> or <i>Central Highlands Regional Council bylaws</i>. The Pest and Weed Management Plan will also reflect this and will guide the management and disposal of weeds onsite."</p>
3	Chapter 8 – Surface Water	<p><b>s8.3.2, p8-6</b> Further to the response to DAFF's EIS submission no.18.04 and 18.05, the EIS does not satisfy DAFF's recommendation that consultation between the proponent and DAFF occur for all waterway works that might affect fish movement.</p>	<p>The EIS should commit the Project to consult DAFF on all matters concerning potential impacts to fish movements including waterway barrier works, irrespective of their location with respect to the MLA.</p>	<p>SCC commits that for areas outside of the MLA area, a waterway barrier works approval would be sought to build any structure across a freshwater waterway whether it is temporary or permanent.</p> <p>For areas within the MLA, a waterway barrier works approval would not be required. Works would, however, be required to follow DNRM's <i>Guideline Activities in a Watercourse, lake or spring associated with a resource activity or mining operations</i>.</p>

# Springsure Creek Coal Mine Project

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				<p>SCC acknowledges that the DNRM Guideline does not contain any specific measures relating to managing work around fish. Thus, in order to mitigate any potential impacts on fish passage within the MLA, SCC commits that any waterway crossings over 3<sup>rd</sup> order streams and above be constructed in consultation with DAFF.</p> <p>The following additional condition has been added to <b>Chapter 18 EM Plan, s.18.5.4</b> (and also added as a clear mitigation measure to <b>Chapter 12 Ecology, s.12.7.2</b> impacts on habitat connectivity and water flows).</p> <p><b>Interference with Waterways</b>                      (D25) Any interference with waterways must be undertaken in accordance with the Department of Natural Resources and Mines Guideline – Activities in a watercourse, lake or spring associated with mining activities. Any construction of a crossing over 3<sup>rd</sup> order streams and above will be carried out following consultation with the Department of Agriculture, Fisheries and Forestry.</p>
4	Chapter 12 - Ecology	<p>1. <b>s12.6, p12-91</b> The Project area may be subject to aerial spraying for the management of migratory and spur-throated locusts.</p> <p>2. <b>12.7.7, p12-105 &amp; s14.6.4, p14-39</b> The EIS does not refer to the possible application of the Plant Protection Act 1989. For example, the whole QLD is a pest quarantine area for grape phylloxera and the Project site is located in a grape growing area. The Project also transverse the Special Control Zone (which is designated as phylloxera exclusion zone). For further information refer to – <a href="http://www.daff.qld.gov.au/4790_20983.htm#Grape">http://www.daff.qld.gov.au/4790_20983.htm#Grape</a>.</p>	<p>1. The EIS should acknowledge that the Project area might be subject to the control of locusts, which could include aerial spraying. Any process should be developed in consultation with state and local authorities.</p> <p>2. No immediate issues are foreseen, however there is the possibility that machinery contaminated with plant pests (e.g. insects) or disease (e.g. fungi) could move to, or from, sensitive zones. While it is unlikely that plant and machinery has been in contact with grape vines, general biosecurity awareness of plant risks among 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 – <a href="http://www.daff.qld.gov.au/documents/Biosecurity_MovingPlantsAndPlantProducts/IA_4.6.pdf">http://www.daff.qld.gov.au/documents/Biosecurity_MovingPlantsAndPlantProducts/IA_4.6.pdf</a></p>	<p>1. <b>Section 12.7.7 p.106</b> of the <b>Ecology chapter</b> has been updated to include specific mention of spur throated locusts as a potential pest and that any control measures for pest locusts will be developed in consultation with DAFF.</p> <p>“Pest and weeds, including spur-throated locusts (<i>Austracris guttulosa</i>), pose one of the most significant threats to flora and fauna within the Study area...</p> <p>...Any control measures for pest locusts would be developed in consultation with DAFF.”</p> <p>These changes are mirrored in <b>chapter 18 EM Plan</b>.</p> <p>2. The final EIS sets out the provisions of the <i>Plant Protection Act 1989</i> in <b>Chapter 12 Ecology, s.12.2.6, p12-5</b>.</p> <p><b>Chapter 18 EM Plan, s.18.5.8, p18-214</b> has been amended with to clarify SCC’s commitment to pest and weed management in accordance with all state, regional and local priorities (refer text highlighted below for changes) and is thus inclusive of all relevant Acts and policies. The remainder of this section is also provided below and demonstrate additional measures such as vehicle wash down and workforce training.</p> <p>“This [Weed and Pest Management] Plan will be developed and</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



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				<p>implemented prior to commencement of construction through consultation with the Department of Agriculture, Fisheries and Forestry (DAFF), and managed in accordance with the requirements of state, regional and local pest and weed priorities. The Weed and Pest Management Plan will include the following measures:</p> <ul style="list-style-type: none"> <li>▪ Implementation of sediment control mechanisms to minimise the risk of weed seed washing into waterways;</li> <li>▪ Implement control strategies outlined in DAFF weed and pest animal fact sheets and other relevant state and local government biosecurity management strategies...”</li> <li>▪ Training to staff and contractors to identify priority weeds, including those identified as priorities in the CHRC area.</li> <li>▪ All machinery brought to site or leaving site for other areas must be certified weed free, to prevent the import and export of weeds;</li> <li>▪ An assessment will be undertaken of weeds with local and regional priorities. Management of these weeds will be incorporated into the overall Weed and Pest Management Plan;</li> <li>▪ Pre-construction weed mapping should be undertaken to accurately determine the extent of weeds and pests, including weeds of local and regional priority;</li> <li>▪ Vehicle wash down procedures;</li> <li>▪ Minimise the use of off-road vehicle movements;</li> <li>▪ Onsite waste disposal strategies (particularly for food wastes) to be employed that will not encourage the presence of pest fauna;</li> <li>▪ Strategies for the storage of construction and operation materials/equipment to be employed that will not encourage the presence of resident pest fauna;</li> <li>▪ Regular onsite inspections of site infrastructure/equipment for resident pest fauna and establishment of register for pest sightings; and</li> <li>▪ Monitoring and weed and pest inspections particularly in responses to reported outbreaks or from complaints or</li> </ul>

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# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
				<p>adjacent property owners.”</p> <p>This commitment has also been carried through to <b>s.18.5.8.7, p180-218</b> as a proposed EA condition:</p> <p>(K2) The Authority holder will prepare and submit a Pest and Weed Management Plan to the Administering Authority for approval prior to the commencement of construction. <b>This Plan will align with state, regional and local government weed and pest animal priorities.</b></p> <p>These updates have also been mirrored in <b>Chapter 12 Ecology, s.12.7.7.</b></p>
5	Chapter 16 - Economic	<p><b>1. (c16)</b> In response to DAFF’s EIS submission no. 18.22, the EIS is relying on the Agricultural Research Co-existence Committee to gather and provide relevant information about impacts on agricultural production. The delivery of this work should occur prior to Project’s impacts occurring. (RS &amp; PIF)</p> <p><b>2. s16.7.7.1, p16-34</b> The cumulative impacts that the broader project (that is, the mine and the train load out facility and transport and infrastructure corridor) needs to be examined with regard to the totality of potential impacts on existing agricultural land uses and business enterprises (i.e. productivity and yields, farming systems, cost structures and economic returns). (RS &amp; PIF)</p> <p><b>3. s16.7.7.1, p16-34</b> The EIS references co-existence between agriculture and mining activities but is silent on how this will be formally managed and delivered for the benefit of affected landholders. The Proponent is providing a process via the Agricultural Co-existence Research Committee by which rehabilitation and productivity enhancement measures could be developed, however greater commitment to actions in this regard is sought. (RS)</p>	<p>1. As previously requested, the Project should determine or provide for an estimate of the costs and value of agricultural 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.</p> <p>2. As a demonstration of the Proponents commitment to co-existence between agriculture and mining, the cumulative impacts should be considered on a whole of project basis, not on a separate project components basis, as is the current approach. Without this undertaking, the EIS assessment and mitigation of impacts to potential affected agricultural land uses and business enterprises will remain incomplete. <b>Note:</b> This should be cross referenced with an update Chapter 20 – <i>Key Commitments</i>.</p> <p>3.1 The EIS should recognise the important role of Agricultural Management Plan and should commit to finalising these quickly with all affected landholders.</p> <p>3.2 The EIS should commit to detailed planning for the rehabilitation of affected land, including addressing subsidence (including earthworks and soil renovation procedures), the infrastructure to control runoff on dryland area and distribute water to irrigated areas and the agronomic approaches that will be adopted to improve agricultural productivity. The Agricultural Management Plans should contain measures to ensure that productivity and economic returns are maintained over the long term. These Plans would also contain alternative strategies should the measures proposed to restore land and maintain productivity are not successful.</p>	<p>1. Please refer to our response to DAFF’s additional comments on separate sheet for information on managing impacts on productivity.</p> <p>2. Impact assessment studies in support of the proposed infrastructure corridor and train load out facility are already underway and include consideration of potentially cumulative impacts.</p> <p>This commitment has been added to <b>Chapter 20 Key Commitments</b>.</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



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			<p><b>Notes:</b></p> <p>A. This should be cross referenced with an updated Chapter 20 – <i>Key Commitments</i></p> <p>B. To support the development of Agricultural Management Plan, the EIS should provide updated subsidence modelling for all affected areas, including modelling of all affected agricultural areas outside of the MLA.</p>	<p>B. Subsidence modelling and stream hydrology &amp; flow modelling have been updated based on the latest MLA area. The results of these have been added into <b>Chapter 5 Land, s5.5</b> and <b>Chapter 8 Surface Water, 8.5</b>.</p> <p><u>No subsidence is predicted to occur outside of the MLA.</u></p>
6	Chapter 18 – EM Plan	<p><b>s18.5.8, p18-214</b></p> <p>With reference to the statement:</p> <p><i>“This Plan will be developed and implemented prior to commencement of construction through consultation with the Department of Agriculture, Fisheries and Forestry (DAFF), and managed in accordance with the requirements of the LP Act.”</i></p>	<p>1.1 The EIS should ensure that a weed and pest animal management plan be developed consistent with state and local pest and weed priorities.</p> <p>1.2 In addition to state and regional priorities, this plan should align with local government weed and pest animal priorities.</p>	<p>Please refer to our response to issue #4 above for reply and additional commitments made to EIS in regard to weed and pest management.</p>

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## Phillips Erin

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**From:** Pete Jones <PeteJones@bandannaenergy.com.au>  
**Sent:** Tuesday, 13 August 2013 3:43 PM  
**To:** Smith Wedeena  
**Cc:** Hambleton Alison; Bleakley Ashley; Rhodes Monika; Jen Mason; KROSCH Neil  
**Subject:** SCC EIS submission  
**Attachments:** DNRM Response to comments on final EIS.pdf; DNRM Attachment - Albinia Fault Memo.pdf

**Importance:** High

Hi Wedeena,

Please find attached our response to DNRM's comments on the SCC EIS as per our recent discussions.

The updated EIS can be accessed from our project website with all changes highlighted in yellow within the document: <http://www.springsurecreekproject.com.au/project-development-and-approvals/springsure-creek-coal-mine-eis>

The webpage also includes a link to a new addendum which lists all the changes made to the EIS since the June issue:  
[http://www.springsurecreekproject.com.au/assets/library/Springsure\\_Creek\\_Coal\\_EIS/Revised\\_EIS\\_Chapters/Addendum - Changes Made.pdf](http://www.springsurecreekproject.com.au/assets/library/Springsure_Creek_Coal_EIS/Revised_EIS_Chapters/Addendum_-_Changes_Made.pdf)

We trust your concerns are fully addressed and thank you for your inputs to the Project to date.

Thanks,  
Pete

### **Pete Jones**

*Environmental Approvals Coordinator*

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# Springsure Creek Coal Mine Project

## Response to comments on final EIS



### Department of Natural Resources and Mines

Issue	Topic	Comment	Recommendation / Suggestion	Response
1	General	<p>Firstly it should be noted that in the document provided by Bandanna Energy, 'Response to Submissions to EIS' the responses provided in relation to comments made by DNRM on groundwater related issues were in places poor and at times did not address the comment. However a review of the updated groundwater report often resulted in answers to the original comments being obtained.</p> <p>It is noted that Water Resource Australia Pty Ltd have reviewed the updated groundwater model and provided comment. Water Resource Australia has generally supported the quality of the modelling work carried out, with some qualifications. It is a positive step that Bandanna has arranged for this peer review of the groundwater model. The comments of Water Resource Australia, the updated model report and draft EMP have been reviewed by DNRM along with the proponent's responses referred to above. The more significant outstanding issues are noted below.</p>		Comments noted.
2	Chapter 9 - Groundwater	<p><b>Monitoring bores (Table 9-2 and Section 9.3.1.2, pg 9-5)</b></p> <p>It should be noted that in the course of the groundwater investigation work carried out as part of this EIS, nine monitoring or production bores were drilled. Of these bores strata details are supplied for two (SPR107C and SPR138) and construction details supplied for four bores in the original EIS. In the SEIS documents, basic construction details are supplied for the nine bores, but no additional strata details are provided.</p>	Strata details are required to be provided for the remaining seven bores.	Additional bore strata details have been added to Table 9-2.
3	Chapter 9 - Groundwater	<p><b>Section 9.5.4.3 – Calibrated Model (Page-9-77)</b></p> <p>In table 9-20 a vertical hydraulic conductivity (permeability) for the Rewan Formation of <math>1 \times 10^{-6}</math> m/day has been adopted. In determining this figure, references are provided for work carried out by AGE on the Ensham mine in 2006 and by Ausenco – Norwest (2012) in work carried out on a groundwater model for the northern Bowen Basin for Arrow Energy.</p> <p>However recent work carried out by AGE in 2013 for Minyango (Blackwater) suggest a vertical hydraulic conductivity for the Rewan of <math>5.4 \times 10^{-5}</math> m/day. Additionally recent work carried out in the southern Galilee Basin in the Alpha area has seen URS (2012) adopt a vertical hydraulic conductivity for the Rewan of <math>9 \times 10^{-5}</math> m/day for the Alpha/ Kevins Corner model and Heritage Computing (2013) adopt <math>9.3 \times 10^{-5}</math> m/day for the Galilee Coal</p>	It is recommended that a further model run/ sensitivity/ uncertainty analysis be carried out using an unfractured vertical hydraulic conductivity figure of $1 \times 10^{-4}$ m/day which would then be increased in fractured zones. This will then provide a more appropriate upper limit of potential impacts.	<p>A number of meetings and teleconferences have been held with Ashley Blakeley regarding this issue during the response period. As a result of this, additional information has been added to Chapter 9 Groundwater better justifying the conservative assumptions already included within the presented model.</p> <p>The uncertainty case for the worst case scenario of drawdown is based on several conservative assumptions, namely:</p> <ol style="list-style-type: none"> <li>1) the fracture zone extends above some areas of the mine extends into the Basalt by several 10s of meters which is consistent with the base case model and based on project team experience at Crinum and in the region.</li> <li>2) The thickness of the Rewan is assumed to have a uniform permeability of <math>1 \times 10^{-5}</math> m/day which when fractured increases to <math>1 \times 10^{-4}</math> and <math>5 \times 10^{-5}</math> in the lower and upper fractured zones.</li> </ol>

# Springsure Creek Coal Mine Project

## Response to comments on final EIS



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		<p>Project model. These figures all relate to a formation not yet fractured by the effects of goafing.</p> <p>In the Springsure Creek model, in the lower fractured zone, an adjusted vertical hydraulic conductivity of <math>1 \times 10^{-5}</math> m/day is adopted, which is still considerably lower than the unfractured figures quoted above.</p> <p>In section 9.5.6.1 it is noted that the vertical hydraulic conductivity is one of a number of parameters to which drawdown predictions are sensitive. This is to be expected as the connection of the basalt aquifer to the dewatered coal measures is directly linked to the vertical hydraulic conductivity of the Rewan Formation which separates them.</p> <p>In sensitivity analysis carried out for Springsure Creek the unfractured Rewan vertical conductivity is increased to <math>1 \times 10^{-5}</math> m/day which is meant to represent a worst case scenario. This approach of sensitivity/ uncertainty testing is supported but again this figure is significantly lower than those quoted above from other mines in Central Queensland so it does not qualify as a worst case scenario.</p> <p>In the peer review carried by Water Resource Australia it was noted that while literature references and comparisons are required, it does not completely overcome the need for more site specific data and investigations. It was further noted that No packer tests or core permeability test results at site are provided in the report.</p> <p>The vertical hydraulic conductivity of the Rewan is probably the most important groundwater issue at this time as it directly dictates the predicted impact on the overlying basalt aquifer and its users.</p>		<p>3) The presence of weathered clay material recorded during geological studies at the based of the Rewan is not included in the modelling</p> <p>4) The modelling assumes that the entire fractured zones within the Rewan could facilitate upward movement of depressurisation front at rates proportional to conductivities of <math>1 \times 10^{-4}</math> and <math>5 \times 10^{-5}</math>.</p> <p>Taken together, the combination of conservative assumptions included in the model are judged to provide an appropriate upper limit of potential impacts and negate the need for modelling at <math>1 \times 10^{-4}</math>.</p> <p>However, and notwithstanding the above, whilst the scenario presented in the Groundwater Report is believed by SCC and our technical advisors to be the most likely case, the assessment of impacts and proposed mitigation measures are based on the worst case scenario (fracturing up to 200m) with a higher permeability (<math>1 \times 10^{-5}</math>). This approach was agreed with Ashley Blakeley on 9 August 2013 during telephone conversation and in email from Ashley to SCC on 13 August 2013 as the most appropriate way forward so long as recognition that SCC has assumed an unfractured Rewan vertical hydraulic conductivity of <math>1 \times 10^{-6}</math> m/day. Ashley has confirmed he supports the updated groundwater chapter in the EIS (refer email 13 August 2013 attached).</p>
4	Chapter 9 - Groundwater	<p><b>Section 9.5 – Groundwater Impact Assessment, (Page- 9-60)</b></p> <p>The groundwater model has been developed with no flow boundaries on most boundaries of the model. This means that with the exception of the north east corner of the model, groundwater cannot flow into or out of the model area.</p> <p>The peer review by Water Resource Australia identified the no flow model boundaries on much of the model as atypical of most modelling projects. Furthermore, they noted that the conceptualisation of the how the system operates, in justifying the no flow boundaries was <i>based upon data primarily sourced from local water table aquifers with very little data from the</i></p>	<p>In future updates of the model the suitability of existing model boundary conditions and application of recharge and evapotranspiration should be addressed to more accurately simulate local hydrogeological conditions.</p>	<p>Agreed. SCC proposes the text highlighted in yellow is included in the project's EA conditions (and has been added to the Chapter 18 EM Plan, p18-122).</p> <p>(condition D75) The Project 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. <b>Future updates of the model will include a review of the model's boundary conditions and application of recharge and evapotranspiration processes to stimulate local hydrogeological conditions.</b></p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



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		<p><i>deeper geologic units, in particular the coal seams.</i> The concerns about the lack of data in the deeper formations mirror those expressed by DNRM in response to the EIS.</p> <p>Water Resource Australia also raise concern about evapotranspiration being the primary source of outflow from the model.</p> <p>It would appear from the plots provided in Figure 9-37 using the limited historical data available that a combination of the model boundaries and application of recharge and evapotranspiration has resulted in the models inability to match the observed water level declines and rises caused by drought and high rainfall events.</p> <p>It is considered that more work will be required in relation to these issues in the future to refine the model but for now they are not considered critical.</p>		
5	Chapter 9 - Groundwater	<p><b>Section 9.3.3.3 - Geologic Structures (Page- 9-15)</b></p> <p>The following description of the Albinia Fault is provided:</p> <p><i>A northwest to southeast trending fault called the Albinia Fault traverses along the east of EPC891 (Xenith 2011, Resolve Geo 2011). No significant vertical displacement from one side of the fault to the other has been identified, although a sudden change in the thickness of the Aries 2 seam across the fault is observed. The location of Albinia Fault, as presented in Resolve Geo (2011), is shown in Figure 9-6. Other faults identified in the Project area shown in Figure 9-6 are interpreted to terminate in the basement and do not extend up into the Bandanna Formation (Xenith 2011). The Bandanna Formation and the sedimentary sequence above the Mantuan Formation, occurring approximately 300m below the Aries 2 seam, are interpreted to be notably free of faulting (Resolve Geo 2011).</i></p> <p>Figure 9-8 in the groundwater report appears to indicate that there is significant displacement in the Bandanna formation and the Triassic sediments with the fault extending up to ground level. It would appear that the figure contradicts the text.</p> <p>In section 9.3.6.3 it is stated:</p> <p><i>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</i></p>	<p>Clarification should be provided on the extent of faulting in regard to the Rewan Formation and its potential to effect existing modelled impact predictions.</p>	<p>Please refer to attached memo regarding faulting.</p>



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Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p><i>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.</i></p> <p>Given that the existence of a significant fault in the Rewan could compromise its integrity as an aquitard, there needs to be consistency on how this issue is reported. Is the Rewan Formation faulted or likely to be faulted or not?</p>		
6	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9. Environmental Management Plan, Control Strategies (Page-18-103)</b></p> <p>In this section it is stated:</p> <p><i>As drawdown depends on a range of factors, its impacts are best managed adaptively. Adaptive management involves monitoring groundwater impacts and, based on the severity of impacts, modify the mine plan as mining takes place such that impacts could be limited to within designated ranges. In the event impacts are detected, potential adaptation strategies 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.</i></p> <p>This information constitutes a discussion rather than a commitment. There is no discussion about what will trigger the adaptive management. How will trigger levels be developed? There is a commitment in section 18.5.4.11 to develop a groundwater management plan but it is not clear what will be in this plan. Will it include information relevant to adaptive management as discussed above?</p>	<p>The proponent must clearly articulate how the proposal of adaptive management will be developed and function.</p>	<p>Chapter 18 EM Plan, p 18-119 has been updated to better describe SCC’s commitments to groundwater monitoring and management. The proposed contents and scope of the groundwater monitoring and management plan has been set out in condition D71. Condition D72 sets out the process for monitoring drawdown based on trigger levels. Trigger levels are also proposed for changes to groundwater quality. Conditions D77-D79 then clearly set out SCC’s commitment to replace any bores affected by significant drawdown and replace affected supplies at all times.</p>
7	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9. Environmental Management Plan, Control Strategies (Page-18-103)</b></p> <p>The following is provided;</p> <p><i>Any landholder bores located in areas of significant drawdown which result in an inability or reduction in access to groundwater volumes may need to be deepened or replaced. This is in addition to any structural damage to bores occurring due to subsidence. In</i></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.</p>	<p>The four bores mentioned (RN57358, 57359, 57360 and 57361) are located within the “Springton” property is directly affected by the project, located partly within the MLA.</p> <p>Compensation agreements will be negotiated and entered into with all directly affected landholders in accordance with the requirements of the <i>Minerals Resource Act 1989</i>. These agreements which remain confidential between Springsure Creek</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



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		<p>most cases, the Basalt aquifer will have sufficient saturated thickness to enable deepening of wells. Four registered bores (RN57358, 57359, 57360 and 57361), are located in where the modelled initial saturated thickness of the basalt aquifer is less than 40 m. Deepening 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, SCC will maintain supply of groundwater as agreed with the landholder.</p> <p>There appears to be no clear cut commitment about what agreements will be entered into with the landowners and when this will occur. In fact, there appears to be little change in the words provided at EIS stage where it was pointed out that a stronger clearer commitment was required.</p>		<p>Coal and landholders, will address all agreed issues of concern, including potential impacts on groundwater. Specific conditions or requirements in relation to directly affected landholders are therefore not considered to be required as part of any Environmental Authority as they are already addressed through other legislation.</p> <p>For landholders outside of the MLA where compensation agreements are not required prior to mining commencing, proposed condition D42 in Section 18.5.4.12 (pg 18-119) outlines our proposed commitment regarding impacts on groundwater bores.</p> <p><i>(D42) Where an existing or potential groundwater resource exists then discharge quality should be monitored and conditioned with a tabulated format and condition the same as surface water discharges, and dependent on the uses for the groundwater resource. In addition, any landholder bores located in areas of significant drawdown (which resulting in an inability or reduction in access to groundwater volumes) will be deepened or replaced. This is in addition replacement of bores as a result of any structural damage caused by subsidence.</i></p>
8	Chapter 3 – Project Description	<p><b>Section 3.4.3. Ongoing Evaluation and Exploration Activities (Page 3-27 to 3-29)</b></p> <p>Thank you for providing the local project area cross-sections. However they require greater vertical exaggeration in order to be interpreted correctly.</p>	Please increase the vertical exaggeration in the project cross-sections.	<p>A draft amended Figure (the first figure in the series of four) was sent to Wedeena Smith on 6 August 2013 for review.</p> <p>All four figures have now been amended with an increased vertical exaggeration to better show the strata.</p>
9	Chapter 18 – EM Plan	<p><b>Section 18.5.4.6. Environmental values including GDEs (Page 18-97) and parallel section in Chapter 9.</b></p> <p>The mapping in Figure 9-22 is not from EHP but is from the National Atlas of Groundwater Dependent Ecosystems, and indicates that a high potential for GW interaction exists in a significant portion of the project area.</p> <p>It is an assumption to state that the predicted maximum drawdown of 0.5m, which would be permanent, is comparable to natural system variability. No evidence to prove this assumption is provided. It is hoped that the fractures do not propagate into the basalt, but if they do, there may be significant effects on the deeply rooted components of GDEs. There is no evidence to suggest that these potential GDEs can survive a drought coincident with a permanent drawdown of 0.5m.</p>	<p>Replace:</p> <p><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></p> <p><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</i></p>	<p>This text has been replaced in <b>Section 18.5.4.6</b> as requested and mirrored in <b>Section 9.3.6.4 Groundwater-Dependent Ecosystem</b> for consistency.</p>

# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
			<p><i>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></p> <p><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></p> <p>With:</p> <p><i>The National Atlas of Groundwater Dependent Ecosystems indicates that there are areas with a high potential for GDEs in the Project area. In periods of low rainfall, the dependence of GDEs on groundwater is higher. As the predicted maximum drawdown along some creek systems is approximately 0.5 m, in periods of low rainfall, there may be impacts on GDEs.</i></p> <p><i>The risk to GDEs is considered to be medium, based on conservative assumptions that:</i></p> <ul style="list-style-type: none"> <li><i>the fractures above the goaf extend into the basalt by several 10s of metres in parts of the mine area</i></li> <li><i>some of the deep rooted plants in the riparian zone have high dependence on groundwater particularly during low rainfall periods.</i></li> </ul> <p><i>However, 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. It is therefore assumed that there will not be any significant impacts to riparian vegetation.</i></p>	
10	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9. Control Strategies (groundwater – environmental values) (Page 18-101)</b></p> <p>The statement about a water level decline not affecting GDE health is immediately followed by a statement to the effect that, as GW becomes less available, fringing vegetation will transpire less. This is actually a statement about declining health.</p> <p>Enhanced recharge through increased ponding (a major system change) is generally not considered desirable for the ecosystems or groundwater systems already present.</p>	<p>Please remove the paragraph:</p> <p><i>Although a decline in water levels is predicted to occur, there are several ways in which the regional water balance could adjust without adverse effects on the health of GDEs. One possibility is that as the water table declines, fringing vegetation takes less water by evapotranspiration such that withdrawal of groundwater is balanced by a slight decrease in evapotranspiration from vegetation throughout the region. Another possibility is that re-directed flow during episodic flood events continues to supply recharge to the Alluvium that allows water table elevations to recover. Recharge may locally be enhanced as a result of cracking</i></p>	Amended as requested and mirrored in Groundwater chapter s9.6.1.5.

# Springsure Creek Coal Mine Project

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Issue	Topic	Comment	Recommendation / Suggestion	Response
11	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9. Control Strategies (groundwater - management of drawdown) (Page 18-103)</b></p> <p>Fracturing may impact on both GW levels (drawdown) and surface topography (subsidence). This in turn may impact on environmental values associated with GDEs, water bore function and agricultural practices.</p> <p><i>Drawdown:</i> The discussion about drawdown impact mitigation strategies is good overall, but this section is not clear about how fracturing extents will be monitored – is it through monitoring GW levels alone? What would be the triggers for the implementation of mitigation measures? Have there been other projects where bulkheads or grout injection were successfully implemented as mitigation measures?</p> <p><i>Subsidence:</i> There is no indication in the SEIS of what the control strategies, remediation is, or the mitigation measures are, for impacts to GDEs from subsidence.</p>	<p><i>of stream bed and increased ponding depth above subsided panels.</i></p> <p>The discussion about adaptive fracture-related drawdown management needs to be strengthened with commitments about the drawdown impact mitigation strategies. Cite instances where mitigation measures for fracture-related drawdown impacts have been successfully implemented. State what the trigger levels would be for the measures to be implemented.</p> <p>Add a discussion that includes monitoring methods, triggers and commitments about mitigation and remediation for subsidence-related impacts on GDEs. If possible it should be related to the mitigation measures and commitments about fracture-related drawdown impacts.</p>	<p>Further discussion has been included in s9.6 and s18.5.4.9 as requested.</p> <p>Add a discussion regarding monitoring of GDE's (by veg survey) and outlined what management strategies we might implement if GDE's affected – enhance existing ones by supplementing water supply, offset by enhancing another one elsewhere. Refer paper provided by Peter Brisbane.</p> <p>For commitments in relation to this, please refer to proposed conditions D42 (as noted above under comment No.7) and F6 below.</p> <p>(F6) The subsidence management plan must be developed to the satisfaction of the administering authority in accordance with the DNRM guideline entitled "Watercourse Subsidence – Central Queensland Mining Industry" or any updates that become available from time to time and must include at least the following components:</p> <ol style="list-style-type: none"> <li>1. Condition of the existing watercourse (including a baseline assessment);</li> <li>2. The proposed impacts of subsidence on the watercourse and floodplain including but not limited to: <ul style="list-style-type: none"> <li>• Physical condition of surface drainages <ul style="list-style-type: none"> <li>- Erosion</li> <li>- Areas susceptible to higher levels of erosion such as watercourse confluences</li> <li>- Incision processes</li> <li>- Stream widening</li> <li>- Tension cracking</li> <li>- Lowering of bed and banks</li> <li>- Creation of in stream waterholes</li> <li>- Changes to local drainage patterns.</li> </ul> </li> <li>• Overland Flow <ul style="list-style-type: none"> <li>- Capture of overland flow by subsided long-wall panels</li> <li>- Increased overbank flows due to lowering of high bank of watercourses</li> <li>- The portion of local and large scale catchment likely to be captured by subsided</li> <li>- Long-wall panels and the associated impacts on downstream users.</li> </ul> </li> <li>• Water Quality <ul style="list-style-type: none"> <li>- Surface water</li> </ul> </li> </ul> </li> </ol>

# Springsure Creek Coal Mine Project

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Issue	Topic	Comment	Recommendation / Suggestion	Response
				<ul style="list-style-type: none"> <li>- Groundwater</li> <li>- Overland flow water detained in subsided long-wall panels.</li> <li>• Land condition: Current land condition to be impacted by subsidence; and</li> <li>• Infrastructure: Detail of existing infrastructure (pipelines, railway, power lines and haul roads) should be identified where there is a potential impact from effects of land subsidence.</li> </ul> <p>3. Proposed options for mitigating any impacts associated with subsidence and how these mitigation methods will be implemented:</p> <ul style="list-style-type: none"> <li>• A risk assessment;</li> <li>• A monitoring, evaluation and maintenance program;</li> <li>• Cumulative Impacts on watercourse or catchments;</li> <li>• Impacts on groundwater; and</li> <li>• Impact mitigation techniques required to be undertaken within the watercourse and floodplain of the watercourse.</li> </ul>
12	Chapter 12 - Ecology	<p><b>Section 12.5.8.2. Stygofauna Assessment – Field assessment</b></p> <p><b>Inadequate sampling for stygofauna and inconsistency between the Ecology and Groundwater chapters regarding the presence of alluvial aquifers.</b></p> <p>The Ecology report states that the majority of stygofauna that have been collected to date have been in alluvial aquifers, but that alluvial aquifers do not occur in the study area (Section 12.5.8.2). It also states that stygofaunal sampling may have been inadequate (p. 12-88).</p> <p>In comments on the EIS, DNRM pointed out that although the Ecology report (Chapter 12) stated that there were no alluvial aquifers in the study area, alluvium was referred to in the Groundwater Report. DNRM requested that chapter 12 be amended to make it consistent with the Groundwater Report. This has not been done. There are a number of references to alluvial aquifers in the revised Groundwater Report (chapter 9) e.g. pp. 9-18, 9-27, 9-31, 9-39, 9-56, 9-64 and the revised EM Plan (Chapter 18) e.g. pp18-92, 18-93, 18-97, 18-103 and 18-104. Page 18-104 refers to monitoring bores to be installed in the alluvium.</p> <p>Further, the original EIS stated that bores were purged prior to sampling. DNRM pointed out that this was inconsistent with WA Guidance No.54 and 54a. In response the proponent has simply stated that bores were not purged prior to sampling. It appears that the stygofaunal sampling was carried out during groundwater</p>	<p>The EM Plan should include a commitment that monitoring bores to be established in the alluvium will be sampled for stygofauna in a manner consistent with the WA Guidance No.54 and 54a.</p> <p>The Ecology report should be modified to be consistent with the Groundwater report regarding the presence of alluvium in the study area, as requested in the previous comments on the EIS.</p> <p>The original consultant’s report on the stygofaunal and water quality sampling should be provided.</p>	<p>The Ecology Chapter has also been aligned with the Groundwater report regarding the presence of alluvial aquifers.</p> <p>No separate report regarding stygofauna and water quality sampling was prepared. However, <b>Chapter 12 Ecology, s. 12.5.8.2 p. 12-88</b> has been updated to provide full details of stygofauna monitoring and the field results.</p> <p>SCC can confirm that bores were purged prior to sampling stygofauna in accordance with the WA Guidelines.</p> <p>Bores at the top of the Basalt will enable the monitoring of Alluvium. Alluvial aquifers are not present within the Project area.</p>



# Springsure Creek Coal Mine Project

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		quality assessment. It is standard procedure to purge bores before sampling for water quality. This then raises the question of whether bores were sampled adequately for water quality, if they were not purged. The best way of establishing how sampling was carried out is through reference to the consultant's report, which was not provided as a technical appendix to the EIS		
13	Water Management and Use – Surface Water	<p><b>General comment</b></p> <p>We have noticed that the Appendix document was not updated for subsidence, however we acknowledge that the proponent has noted the comments that we made on that section</p>		Noted.
14	Resource Planning – Subsidence Modelling	<p><b>Subsidence Modelling</b></p> <p>The modelling of subsidence over the mine area as presented in the EIS was based on a mine plan designed to fit within the boundaries of the then ML application. Since that time, the original ML application was rejected and a new ML application has been lodged, with boundaries that are marginally different and over a marginally smaller area than the original. Although the longwall panel layout has been amended (essentially by shortening panels to fit within the new ML boundary), there has been no matching subsidence model presented in the SEIS to show how subsidence at the periphery of the mine plan will relate to the new ML boundary. This is important as DNRM will not permit any subsidence to be caused to any area outside the boundary of the company's ML and the surface area held under same.</p>	It is recommended that a new subsidence model/plan be presented showing the most up to date ML boundary and mine plan (longwall layout) and the surface expression of subsidence that is predicted relative to those.	Subsidence modelling has been updated accordingly and the results are presented in Chapter 5 Land section 5.5 and in Appendix A4-2.
15	Resource Planning – Subsidence Modelling	<p><b>Subsidence Modelling</b></p> <p>The SEIS also includes a modelled subsidence plan showing predicted pondage areas on the surface caused by the layout of the subsurface longwall panels and pillars. This plan overlays the "ponding" areas over existing surface drainage, but does not show any interpretation of changes to surface drainage patterns that may occur "naturally" as a result of subsidence, or of surface engineering works that may need to be done to realign surface drainages to minimise the effects of ponding.</p>	It is recommended that another plan be provided to show an interpretation of the surface drainage pattern that is expected to exist post-subsidence.	Subsidence modelling has been revised for changes to landform and also for hydrology. Updates are included in <b>chapter 5 Land s 5.5 and chapter 8 Surface Water, s. 8.5.</b>
16	Strategic Cropping Land – General	<p><b>Determining SCL and Non-SCL</b></p> <p>The information provided in the SEIS regarding the SCL status of the land does not adequately address Schedule 1 of the <i>Strategic Cropping Land Act 2011</i> (SCL Act) or the <i>Guidelines for applying</i></p>		Comments are noted. No action required for EIS.



# Springsure Creek Coal Mine Project

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Issue	Topic	Comment	Recommendation / Suggestion	Response
	Comments	<p><i>the proposed strategic cropping land criteria</i> (criteria guidelines). Without adhering to the SCL Act and criteria guidelines the SEIS could have incorrectly identified areas of SCL and non-SCL, and consequently could have misrepresented the area of SCL impacted by the project. Should a validation application be lodged with DNRM based on the information in the SEIS, it would be unacceptable.</p> <p>Examples include, but are not limited to:</p> <ol style="list-style-type: none"> <li>1. The spatial density of soil assessment sites do not satisfy the requirements set out in the criteria guidelines; and</li> <li>2. The SCL act and criteria guidelines specify two methods for determining the soil water storage, the SEIS (Appendix A4 – 01, pg 25 and section 3.8 pg257) states that 5 locations are within the 15% margin of the look up table and therefore require further assessment. The SCL Act and criteria guidelines state the other acceptable method of determining soil water storage; the PAWC method used in the SEIS is unacceptable.</li> </ol>		
17	Strategic Cropping Land – General Comments	<p><b>Future SCL Protection Decision Application for the Mine Area</b></p> <p>As the EIS process does not provide any means of approval relating to SCL, a SCL protection decision will be required before any EA or ML can be issued. The SCL protection decision application for the mine area will be assessed in line with the requirements of the SCL Act. The application will be required to demonstrate:</p> <ul style="list-style-type: none"> <li>• the nature of the impacts as a result of the project;</li> <li>• that SCL has been avoided to the greatest extent practicable;</li> <li>• impacts have been minimised where they cannot be avoided;</li> <li>• whether the impacts are temporary or permanent (as per section 14 of the SCL Act) ;</li> <li>• for temporary impacts, how the SCL will be restored to its pre-development condition, and not impeded from cropping (legally or physically) for more than 50 years: and for permanent impacts, mitigation measures in accordance with the SCL Act.</li> </ul> <p>Whether the subsidence from underground mining constitutes a</p>		Comments are noted. No action required for EIS.



# Springsure Creek Coal Mine Project

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Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p>temporary or permanent impact, will be determined by whether the application can demonstrate the land affected by subsidence can be restored to pre-development condition, and is not impeded from being cropped for at least 50 years. Restoration to pre-development condition is more than just maintaining the pre-development land use; it also includes, but is not limited to, the soil profile and soil properties, landform, and productive capacity of the land.</p> <p>The supplementary SEIS states the predicted subsidence is in the order of 1.2m to 2.3m over the longwall panels and 0.2m to 1m over the pillars. The SEIS also focuses on managing the impacts of subsidence by remediating the subsided areas (i.e. re-contouring, ripping to remove surface cracks etc.), and in the long term does not expect any permanent change in land use will occur. However the SCL Act, in seeking to preserve a strategic resource, applies a more rigorous test than “stable landform and re-vegetated” when determining whether an impact is of a temporary or permanent nature. The SCL Act requires not simply that the land be rehabilitated sufficient to allow a comparable agricultural land use, but requires that land be restored its pre-development condition and all impediments to cropping to be removed (within 50 years) – irrespective of what the predevelopment land use was or the post-development use of adjoining land happens to be.</p> <p>Based on the information within the SEIS, DNRM has serious concerns whether restoration to pre-development condition (as defined by the SCL Act) is possible. Mining Lease Application 70486 meets the requirements of section 289 of the SCL Act for transitional status, and is therefore exempt from the permanent impact restriction. As a result, the ultimate determination of whether the impact is temporary or permanent does not pose as a show stopper for the mine area.</p>		
18	Strategic Cropping Land – General Comments	<p><b>Transport corridor and Rail load out facility</b></p> <p>DNRM notes that the Terms of Reference for the EIS includes the requirements for the construction, upgrading or relocation of any transport-related infrastructure. This includes road and rail transportation and exportation of products during the construction and operational phases of the project. DNRM notes the previous decision that the transport corridor and rail load out facility should not be included in the EIS, however it would be remiss of DNRM to not raise the issues relating to the SCL approvals required for those components of the overall project, given the successful undertaking of the development is contingent</p>		<p>Comments noted. As acknowledged, the transport corridor and train load-out facility are not included in the EIS are subject to a separate approvals process.</p> <p>These comments will be considered as part of developing documentation for the separate SCL approval.</p> <p>Comments are noted. No action required for EIS.</p>



# Springsure Creek Coal Mine Project

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Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p>on access to a transport corridor.</p> <p>The rail load out facility in its current location, being Mining Lease Application 70501, will not require any SCL application as there is no potential SCL on the SCL trigger map in that area.</p> <p>The transport corridor, being Mining Lease Application 70502, does contain potential SCL and will require a SCL protection decision. The transport corridor is within a SCL protection area and does not have an exemption from the permanent impact restriction. The requirements for the protection decision application for the transport corridor will need to address the same requirements previously outlined for the mine area.</p> <p>As no information has been provided regarding the construction, operation, and decommissioning of the haul road, DNRM is unable to provide an indication of the likelihood of it being a temporary or permanent impact (as defined by the SCL Act). If the land is unable to be restored to pre-development condition and all impediments to cropping are not removed within 50 years, the haul road will be a permanent impact. For a permanent impact to proceed, an Exceptional Circumstances application would need to be lodged, and the development would need to be granted Exceptional Circumstances. The process and criteria for making the exceptional circumstance decision are provided for by chapter 4 of the SCL Act. The Minister for Natural Resources and Mines would currently be the decider of the application.</p> <p>The overall project is dependent on being able to transport the coal from the mine to a rail load out facility via the transport corridor. If any permanent impact is to occur to SCL within that corridor, the ability of the project to proceed could be reliant on obtaining a favourable SCL Exceptional Circumstance decision.</p>		

R1/DL Release



## Phillips Erin

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**From:** Pete Jones <PeteJones@bandannaenergy.com.au>  
**Sent:** Tuesday, 13 August 2013 3:36 PM  
**To:** Holt Eva; Mann Reinier; Rhodes Monika  
**Cc:** Jen Mason  
**Subject:** SCC EIS submission  
**Attachments:** EHP Response to comments on final EIS.pdf

**Importance:** High

Hi Monika, Eva, Rainer,

Please find attached our response to your comments on the SCC EIS as per our recent discussions.

The updated EIS can be accessed from our project website with all changes highlighted in yellow within the document: <http://www.springsurecreekproject.com.au/project-development-and-approvals/springsure-creek-coal-mine-eis>

The webpage also includes a link to a new addendum which lists all the changes made to the EIS since the June issue:  
[http://www.springsurecreekproject.com.au/assets/library/Springsure\\_Creek\\_Coal\\_EIS/Revised\\_EIS\\_Chapters/Addendum - Changes Made.pdf](http://www.springsurecreekproject.com.au/assets/library/Springsure_Creek_Coal_EIS/Revised_EIS_Chapters/Addendum_-_Changes_Made.pdf)

We trust your concerns are fully addressed and thank you for your inputs to the Project to date.

Thanks,  
Pete

### **Pete Jones**

*Environmental Approvals Coordinator*

**BANDANNA ENERGY LIMITED**

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# Springsure Creek Coal Mine Project

## Response to comments on final EIS



### Department of Environment and Heritage Protection

Issue	Topic	Comment	Recommendation / Suggestion	Response
1		<p><b>Inconsistent information on water management and assessment</b></p> <p>The key issues identified relate to water management and assessment proposed by the proponent. In particular the water management on site and the discharge practices are inconsistent in the amended EIS and EM Plan. While in some areas the EIS proposed a non-release scenario, in other areas the EIS proposed uncontrolled discharges (outlined as Condition D15 in the EM Plan). Of importance here would be that mine dewatering water (from groundwater inflows) would be stored in dams with a potential for uncontrolled discharge or vertical infiltration of contaminants from dams to water table aquifer.</p>	<p>EHP recommends that the inconsistencies on water management on site and discharge practices would be addressed in the EIS and EM Plan.</p>	<p>A meeting was held between DSITIA, EHP and SCC on 29 July 2013 to discuss releases from the project. At this meeting a mutual understanding was obtained regarding:</p> <ul style="list-style-type: none"> <li>• The operational requirement for releases</li> <li>• The risk-based design process for regulated dams</li> <li>• The environmental controls for releases</li> </ul> <p>As discussed at that meeting, all dams have the potential to overflow but the point at which overflows occur varies depending on the risk of environmental harm. The risk of environmental harm is qualified by the quality of the water held within the dam. Higher risk dams are designed to meet a lower likelihood of overflowing.</p> <p>The proposed mine dewatering dam and the 4 environmental dams are designed to meet the significant hazard criteria for regulated dams based on DNRM's <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i>. Accordingly, overflows via a spillway (i.e. uncontrolled releases) will occur for rainfall events higher than the design criteria for this dam. This is the case for all mines in QLD, including operational mines.</p> <p>Following discussions with EHP and DSITIA, the option to include controlled releases of dam water as part of the project has been accepted by SCC. This will allow for additional control of dam water levels.</p> <p>The following sections of the EIS have been updated presenting the description of proposed controlled releases and their impacts:</p> <ul style="list-style-type: none"> <li>• Chapter 3 Project Description s.3.6.4</li> <li>• Chapter 8 Surface Water s.8.6</li> <li>• Chapter 18 EM Plan s.18.3.3 and 18.4.4</li> </ul> <p>Furthermore, Chapter 18 EM Plan has been updated to include model conditions for end of pipe discharges, in addition to those for spillway releases that were already included.</p>
2		<p><b>Insufficient information on water parameters and WQOs for receiving waterways</b></p> <p>As part of the EIS review, the Department of Science, Information, Technology, Innovation and the Arts (DSITIA) and EHP have recommended that the proponent conducts further water quality assessments for receiving waterways. Water quality data and</p>	<p>EHP recommends the following:</p> <ul style="list-style-type: none"> <li>• that a list of additional water quality parameters collected in February 2013 survey should be presented</li> <li>• that a list of WQOs outlined in the amended EIS should be updated to include all WQOs</li> </ul>	<p>As discussed at meeting on 29 July 2013, the additional water quality data collected in February 2013 was presented in the EIS in Table 8-6 and included the WQOs tested for.</p> <p>All WQOs were already presented in this table on left hand side.</p> <p>Table 8-6 has been updated to include contextual information</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p>parameters should be analysed as outlined in the DNRM, Guideline Model Water Conditions for Coal Mines in the Fitzroy Basin.</p> <p>Since then, the proponent collected additional surface water quality data has been collected at four locations (February 2013). While an extended suite of water quality parameters have been analysed for the February 2013 survey, the proponent does not provide a clear list of what these additional parameters consisted of.</p> <p>This is important as sampling program 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>Furthermore, the water quality objectives (WQOs) have not been specified in full.</p> <p>For a comprehensive review refer to Table 1.</p>	<ul style="list-style-type: none"> <li>that water conditions proposed should reflect Fitzroy Model Water conditions and their requirements</li> <li>that where any new data should be incorporated with data already collected and compared for comparative analysis; i.e. the EM Plan should reflect sufficient data to meet conditions and if not, should otherwise be justified.</li> <li>Revise the water chapter and EM Plan to show compliance with acceptable water conditions.</li> </ul>	<p>about the additional monitoring sites sampled during Feb 2013 so as to be consistent with other sampling sites (changes are highlighted yellow).</p> <p>Following meeting between SCC, EHP and DSITIA on 29 July, DSITIA have confirmed the Scheduled WQOs for the Comet River were in the SEIS. No action required.</p>
3		<p><b>LAm<sub>ax</sub> exceeds criteria</b></p> <p>The noise modelling proposed in the amended EIS shows LAm<sub>ax</sub> criteria is exceeded for sensitive receptors NL4, NL5, NL6 and NL7. No mitigation measures have been proposed.</p> <p>The EIS and the EM Plan did not contain information how acceptable levels of noise can be achieved. In particular, the following issues will need to be addressed:</p> <ol style="list-style-type: none"> <li>1. What are the noise sources that are causing the high values of LAm<sub>ax</sub>?</li> <li>2. What is the timeline of those sound sources and how long will they be running for in comparison with the mine life?</li> <li>3. What are the proposed mitigation measures to address exceedances in LAm<sub>ax</sub>?             <ol style="list-style-type: none"> <li>a. When will they be put in place?</li> <li>b. What sound reduction is anticipated?</li> </ol> </li> </ol>	<p>Revise the noise chapter and EM Plan to show compliance with acceptable noise levels.</p> <p>Address the questions outlined above and present mitigation measures and their effectiveness.</p>	<p>As clarified through further discussions between EHP and SCC, sites NL4, NL5, NL6 and NL7 are not sensitive receptor sites. As noted in Table 11-3, Section 11.3.3 they are baseline noise monitoring locations within road reserves.</p> <p>A memo was sent by email to EHP on 1 August contextualising the Lamax recordings collected during the surveys. High levels of Lamax are associated with vehicle movements during early morning (5:30 – 6 am) which is considered to be the night time period under EPP Noise. These activities continue across a 24 hour period, 365 days a year on an ongoing basis. These noises occur at a large distance to the sensitive receptors and any intrusive noise from the mine is highly unlikely to contribute to Lamax conditions. Section 11.3.3 has been updated to clarify this.</p> <p>EHP emailed SCC on 9 August to confirm this issue is closed out and no further work is required.</p>
4		<p><b>Subsidence modelling outside MLA</b></p> <p>The modelling of subsidence shows impacts outside of the MLA.</p>	<p>Reconsider the subsidence model based on the existing MLA and any potential environmental impacts associated with changes in hydrology.</p>	<p>Subsidence modelling has been revised for changes to landform and also for hydrology. Updates are included in chapter 5 Land s 5.5 and chapter 8 Surface Water, s. 8.5.</p>
5	Chapter 8 – Surface Water	<p><b>Section 8.4 and subsection relating to the Water Quality Assessment</b></p> <p>The proponent response has largely fulfilled the recommendation made by WAS, however there is some issue with the details, including:</p>	<p><b>R1.</b> Where any new data are collected it should be incorporated with data already collected, for example sites samples in February, 2013 have been sampled previously in summer and this data should be compared.</p> <p><b>R2.</b> A description should be included in Section 8.4.3.1 (Site</p>	<p>As per part of response to issue #2 above, Chapter 8 Table 8-6 has been updated to include contextual information about the additional sampling sites. It was agreed at meeting on 29 July 2013 that statistical comparisons were not required (and indeed are unlikely to be validly comparable).</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p><b>C1.</b> The proponent should better incorporate any new data collected. For instance two of the four sites sampled in February coincide with sites already sampled in summer. How do these sampling events for the same site compare in water quality?</p> <p><b>C2.</b> There are no surface water survey site descriptions for the new sites that have not been sampled before, namely (a) Springsure Creek Inflow to Den-Lo Park Dam and (b) Upstream of the Project area on Unnamed Creek 4.</p> <p>[NB February survey sites:</p> <ul style="list-style-type: none"> <li>• Springsure Creek Inflow to Den-Lo Park Dam (new site);</li> <li>• Upstream from the Project area on Springsure Creek (site 5); – Upstream from the Project area on Station Creek (site 2) and,</li> <li>• Upstream of the Project area on Unnamed Creek 4 (new site).]</li> </ul> <p><b>C3.</b> While an extended suite of water quality parameters have been analysed for the February, 2013 survey (4 sites) the proponent does not provide a clear list of what these additional parameters are in Chapter 8.</p> <p><b>C4.</b> Some water quality objectives are missing from Table 8-8 (pp8-32)</p> <p><b>C5.</b> The reference to the information on surface water monitoring criteria in Chapter 18 is not specific enough.</p>	<p>Conditions) of any new sites.</p> <p><b>R3.</b> Include a list of additional water quality parameters included in the February, 2013 survey in Section 8.4.3.2 (Water Quality and Sediment Sampling Method).</p> <p><b>R4.</b> Update Table 8-8 (pp8- 32 – 8-33; Chapter</p> <p><b>R5.</b> The proponent should outline the specifics of the surface monitoring program and criteria in Chapter 18 as stated - “surface water monitoring criteria are thus to be announced as per Chapter 18”</p>	<p>For all other recommendations please refer to response to #2 above.</p>
6	Chapter 8 – Surface Water	<p><b>Section 8.5.6 Stream Flows</b></p> <p>The proponent does discuss the subsidence as potentially reducing connectivity and impacting stream flow within and downstream of the project area (including a wetland protection area) with potential impacts to aquatic flora and fauna (Table 12-19). The risk level is considered medium (Table 12-19). Subsidence management measures are also outlined (Section 12.7.10) and these should decrease the risk of impacts from the predicted decrease in flow in Springsure Creek if carried out appropriately. The proponent has committed to ongoing monitoring of streams and wetlands downstream for subsidence related impacts (Section 12.7.11) throughout the construction; operational phases and decommissioning phases of the mine.</p>	<p>No further recommendations.</p>	<p>No action required.</p>
7	Chapter 8 - Surface Water	<p><b>Table 8-13</b></p> <p><b>C6.</b> There is still inconsistent information in the SEIS regarding whether there will be a controlled discharge from dams. For example, the proponent has not updated point 3 under the</p>	<p><b>R6.</b> Clarification is required on the inconsistencies stated throughout the SEIS and EM Plan regarding water management practices and whether the mine will be practicing and conditioned for controlled or uncontrolled releases. Point 3 under the heading of “Mobilisation of contaminants” [p18-99; Chapter 18; SEIS]</p>	<p>Please refer to response to issue #1</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		heading of “Mobilisation of contaminants” [p18-99; Chapter 17; SEIS]. If there will be not controlled discharges from dams then this point should be removed from the text.	<p>references controlled discharges from dams. Under the next heading Mine Water Management System, it states a mine water management system has been developed based on no controlled discharges.</p> <p>The SEIS must clearly identify the proponents intention when and if the following scenarios will occur –</p> <ul style="list-style-type: none"> <li>Controlled releases</li> <li>Uncontrolled releases</li> </ul> <p>Both scenarios must also include appropriate assessment and monitoring to satisfy the Fitzroy Model water conditions.</p>	
8		The response provides sufficient information to understand that overburden will not be stockpiled on site, yet there will be coal stockpiled during the mine operation. Erosion and stormwater runoff from the coal stockpile is listed as a potential cause of impacts to surface water (sedimentation and contamination) during the operation phase of the project.	No further recommendations.	No action required.
9	General Water Management	<b>C7.</b> The proponent has added information that there will be not controlled discharge of mine wastewater to surface water and that uncontrolled release will be rare and restricted to high rainfall events. The proponent needs to ensure that all references to controlled discharge in the SEIS are removed.	<b>R7.</b> EHP requires that the inconsistencies on water management on site and discharge practices would be addressed – as per R6 above.	Please refer to response to issue #1
10	Chapter 18 – EM Plan	<b>C8.</b> Figure 18-11 in Chapter 18 of the EIS is now Figure 18-12 in Chapter 18 of the SEIS. Figure does not appear to show any new information when compared to Figure 18-11. The proponent should indicate (what information has been added) how the figure has been updated apart from the numbering.	<b>R8.</b> The proponent should say what has been updated in Figure 18-12 (Chapter 18) of the SEIS.	<p>As per email correspondence between SCC and DSITIA on 30 July 2013, SCC has provided maps highlighting the differences between original and amended maps.</p> <p>DSITIA has agreed this is sufficient (as per email from Eva Holt on 30 July 2013).</p>
11	Chapter 12 - Ecology	<p><b>Section 12.8 Mitigation Measures</b></p> <p>Wording in dot point 5; p12-106; Section 12.7.8 (formerly 12.8.8) of Chapter 12 has been changed to <i>“The redirection of all mine affected runoff and mine affected waters are made to appropriately managed dams which have been designed to be above the 1:1000 year ARI level”</i></p> <p>It is also apparent from the EMP (Chapter 18) of the SEIS that mine dewatering water (from groundwater inflows) will be stored in dams with a potential for uncontrolled discharge or vertical infiltration of contaminants from dams to water table aquifer.</p> <p><b>C9.</b> Not all of the performance criteria associated with potential groundwater impacts from groundwater inflow and disposal/removal (e.g. in italics below) are measurable and should be reconsidered.</p> <p><i>“all valid groundwater complaints from down gradient users will</i></p>	<b>R9.</b> Review the performance criteria for ground and surface water impacts and ensure all environmental protection commitments are measurable and auditable.	<p>As per response to issue #1 SCC can confirm that contaminated runoff will be stored within dams designed according to DNRM’s guidelines which minimises the risk of environmental harm from releases as appropriate to the quality of the water held within the dams.</p> <p>The risk of impacts from controlled releases has now been added to the EIS (refer response to issue #1).</p> <p>An additional bullet point has been added to p12-106 as follows (and mirrored in Chapter 18 EM Plan s.18.5.8.6:</p> <ul style="list-style-type: none"> <li>All regulated dams have been designed to contain contaminated water as appropriate to their hazard of environmental harm</li> </ul> <p><b>C9.</b> The comment <i>“all valid groundwater complaints from down gradient users will be taken seriously and investigated in accordance with Project investigation procedures”</i> is a</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p><i>be taken seriously and investigated in accordance with Project investigation procedures"</i></p> <p>Without measureable performance criteria it will be difficult to assess impacts and / or efficacy of mitigation and management measures.</p>		<p>performance criteria. This is intended to be a high level objective.</p> <p>Measurable criteria for evaluating groundwater impacts are set out further on in the EIS at s.18.5.4.10 i.e.</p> <p><i>"Groundwater Quality Monitoring</i></p> <p>Regular monitoring of groundwater quality will take place at a frequency to be determined by the proximity to the impact zone or by the magnitude of any change to groundwater quality chemistry. Monitoring of groundwater quality will comprise the following:</p> <ul style="list-style-type: none"> <li>▪ Electrical conductivity and pH from selected monitoring bores to form part of the monitoring network within the predicted area of impact and water reported to the mine. Changes in groundwater quality may indicate some mixing of shallow groundwater, associated with potential leakage of water from the Basalt to the deeper HSUs; and</li> <li>▪ Sampling from selected monitoring bores for laboratory analyses of major ions, total dissolved solids, metals and potentially harmful substances associated with oil, fuel and chemical handled on site e.g. BTEX, during construction and operations.</li> </ul> <p>Groundwater chemistry data will be analysed graphically for trends and any correlation with observed groundwater levels, mine inflow and rainfall."</p> <p>Conditions which establish the parameters against which groundwater impacts will be assessed quantitatively are present below in s. 18.5.4.11</p> <p>No additional changes have been made in response to this comment.</p>
12	Chapter 12 – Ecology	<p><b>Section 12.8 Mitigation Measures</b></p> <p><b>C10.</b> The proponent not only need to ensure that they have a good characterisation of water in the receiving environment but will also need to characterise the quality of mine affected water that may be discharged and under what conditions (if there is natural stream discharge at the time of mine affected water release then potential contaminants will be diluted to some extent) to the environment before they can understand the potential impacts of mine affected water release (controlled or uncontrolled) to the receiving environment.</p>	<p><b>R10.</b> More information would be required on the quality of mine affected water that may be released and under what scenarios or conditions this water would be released in order for the proponent to justify the statement <i>"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"</i></p>	<p>Agreed and the process for obtaining and evaluating additional information is set out in chapter 8 surface water and mirrored in chapter 18 EM Plan (rather than detailed in chapter 12 Ecology).</p> <p>For details of the process please refer to chapter 18 section 18.5.4.10 and 18.5.4.11.</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
13	Chapter 18 – EM Plan	<p><b>Section 18.5.4.6 Potential Impacts on Environmental Values (page 18-84)</b></p> <p>The proponent has added more detail on potential impacts to surface and groundwater EVs, and proposed control strategies to Sections 18.5.4.6 and 18.5.4.9 of the SEIS, respectively. Included in Section 18.5.4.9 of the SEIS is some broad information on the monitoring program to be implemented to;</p> <p>(a) “supplement the water management strategy to confirm that any potential uncontrolled discharges (overflows from the Environmental Dams) do not adversely impact on downstream water quality”, and</p> <p>(b) “serve as a continual improvement mechanism for the ongoing management of stormwater including operational calibration of the water balance model”</p> <p><b>C11.</b> According to sub-point 3 p18-101; Chapter 18; SEIS (“Relevant water quality parameters, including physico-chemical and estimation of local stream flow;”) local stream flow data will be estimated rather than measured.</p> <p><b>C12.</b> Very limited detail is provided in Section 18.5.4.9 (EM Plan section of the SEIS) on the intended monitoring of mine affected water in storages. This information is integral in determining the potential impacts should mine affected water be released. This information would also be used to set release limits and / or trigger values should the mine affected water ever be released to surface waters.</p>	<p><b>R11.</b> Where possible measure local stream flow data rather than estimating it.</p> <p><b>R12.</b> Provide greater detail within a Mine Affected Water Monitoring Plan or incorporate this information into the Water Quality Monitoring Plan.</p>	<p>As per response to issue #12 above, the process for obtaining and evaluating additional WQ information is detailed in chapter 18 EM Plan. Section 18.5.4.11 has been re-written to provide greater detail on WQ monitoring as per EHP’s EA model conditions. All changes to the text are highlighted in yellow.</p>
14	Chapter 18 – EM Plan	<p><b>Section 18.5.4.7 Environmental Protection Objectives (page 18-85)</b></p> <p><b>C13.</b> The proponent has not fully addressed the recommendation. There is a combination of information that is used in the site specific assessment of potential impacts and to quantitatively assess the efficacy of impact mitigation and management measures. Initially, environmental values and objectives to protect or enhance these values should be identified. WAS wish to reiterate that while the baseline water quality monitoring information is important the Scheduled environmental values and water quality objectives for the region (attached) should also be considered in impact assessment.</p>	<p><b>R13.</b> Scheduled environmental values and water quality objectives for the region (attached) where the project occurs are as important as baseline monitoring data and should also be considered in impact assessment. EVs and the objectives used to protect or enhance these values should be detailed in the EIS and EM Plan. There are Scheduled EVs for surface and groundwater flow and Scheduled WQOs for flow objectives in high ecological value waters. Regional surface and groundwater flow objectives should also be taken into account (Queensland Government, 2011).</p>	<p>Following meeting between SCC, EHP and DSITIA, DSITIA have confirmed the EIS included the Scheduled WQOs for the Comet River in the SEIS. No action required.</p>
15	Chapter 18 – EM Plan	<p><b>Section 18.5.4.8 Performance Criteria (page 18-85)</b></p> <p>The proponent has fulfilled the recommendations made by WAS.</p>	<p>No further recommendations.</p>	<p>No action required.</p>
16	Chapter 18 – EM Plan	<p><b>Section 18.5.4.9 Control Strategies (page 18-87)</b></p>	<p><b>R14.</b> In relation to condition (D15) - EHP requires that the inconsistencies on water management on site and discharge</p>	<p>SCC has clarified any inconsistencies (refer to response to issue #1 above). SCC does not intend to apply for a TEL but seeks</p>



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		C14. It is not usual to condition for an uncontrolled release, especially if the release will be rare or unlikely to occur at all during the lifetime of the project. In instances where an uncontrolled release is foreseeable the proponent may apply for a Temporary Emissions Licence (TEL). The information collected to characterise baseline surface water quality and the quality of mine affected water in storage dams monitoring would be useful in this application. There would also be some monitoring requirements under the TEL.	practices would be addressed – as per R6 above.	conditioning on overflow and end of pipe releases. Chapter 18 section 18.5.4.11 has been re-written using EHP's latest EA model conditions that provide for both scenarios. All changes are highlighted yellow.
17	Chapter 18 – EM Plan	<b>Section 18.5.4.9 Control Strategies (page 18-87)</b>  The proponent has provided sufficient information on this issue.	WAS has no further recommendations on this issue.	No action required.
18	Chapter 18 – EM Plan	<b>Section 18.5.4.9 Control Strategies (page 18-88)</b>  The proponent has provided sufficient information on this issue.	WAS has no further recommendations on this issue.	No action required.
19	Chapter 18 – EM Plan	<b>Section 18.5.4.10 Monitoring Surface Water</b>  <b>C15.</b> Proposed Condition (D21) provides no information on the frequency of monitoring mine affected water in storage dams. Stock should not have access to dams containing hazardous waste. Condition (D21) [“(D21) In the event the water quality within any dam containing hazardous waste does not comply with the contaminant limits defined in Table 18-30, measures will be implemented to minimise access by stock to the dam.”] should be removed from the Proposed Environmental Authority Conditions: Schedule D – Water (Section 18.5.4.12; EM Plan; SEIS). Stock should not have access to dams containing hazardous waste.  <b>C16.</b> It is still important to monitor the quality of mine affected water in storage dams because this information can be used to (a) assess potential impacts to ground and surface waters (diffuse and point source emissions/release); (b) set release limits should mine affected water be released to surface waters, and (c) test the efficacy of mitigation and management measures to avoid and / or reduce impacts.	<b>R15.</b> Remove Condition (D21) from the Proposed Environmental Authority Conditions: Schedule D – Water (Section 18.5.4.12; EM Plan; SEIS).  <b>R16.</b> Mine affected water in storage dams should be monitored. A condition to monitor mine affected water in storages and / or a commitment to monitor mine affected water in the EM Plan should be sufficient. A detailed plan on how this monitoring will be carried out should be included within a Mine Affected Water Monitoring Plan or incorporate this information into the Water Quality Monitoring Plan.	Condition D21 has been removed.  Chapter 18 section 18.5.4.11 has been re-written with model conditions that provide for SCC's commitment to monitor WQ at dams, release point and in receiving environment. All changes are highlighted yellow.
20	Chapter 18 – EM Plan	<b>Section 18.5.4.12 Proposed Environmental Authority Conditions: Schedule D - Water Surface Water</b>  WAS are satisfied with the information supplied here.	WAS has no further recommendations on this issue.	No action required.
21	Chapter 18 – EM Plan	<b>Section 18.5.4.12 Proposed Environmental Authority Conditions: Schedule D - Water Surface Water</b>  <b>C17.</b> Given release of mine affected water to surface waters will be rare or highly unlikely then a controlled release of mine affected water condition will not be required in the EA.  <b>C18.</b> Condition (D21) is poorly written and needs to be reviewed	<b>R17.</b> In relation to the proposed condition (D15) - EHP requires that the inconsistencies on water management on site and discharge practices would be addressed – as per R6 above.  <b>R18.</b> Remove Condition (D21) from the Proposed Environmental Authority Conditions: Schedule D – Water (Section 18.5.4.12; EM Plan; SEIS). A condition to monitor mine affected water in storages and / or a commitment to monitor mine affected water	Please refer to response to issue #19 above. The updated section with model conditions for WQ includes a commitment to prepare a REMP. Relevant conditions added to the EM Plan below:  (D20) The environmental authority holder must develop and implement a Receiving Environment Monitoring Program (REMP) to monitor, identify and describe any adverse impacts to surface water environmental values, quality and flows due to the authorised mining



# Springsure Creek Coal Mine Project

## Response to comments on final EIS



Issue	Topic	Comment	Recommendation / Suggestion	Response
		<p>or removed.</p> <p><b>C19.</b> The Water Quality Monitoring Plan (WQMP), which is described in brief in the EM Plan section of the SEIS (pp18-19), shows that the proponent intends to conduct receiving environment monitoring throughout the life of the project. A requirement to conduct a receiving environment monitoring program (REMP) is usually also conditioned in the EA, especially where there is a potential for release of mine affected water to surface waters.</p> <p><b>C20.</b> The WQMP / REMP is only described in brief in the EM Plan section of the SEIS.</p>	<p>in the EM Plan should be sufficient, along with a detailed plan on how this monitoring will be carried out (a Mine Affected Water Monitoring Plan).</p> <p><b>R19.</b> We recommend adding a requirement to conduct a REMP in the EA. Conditions for monitoring of the receiving environment as per Model Mining Conditions (<a href="http://www.ehp.qld.gov.au/land/mining/pdf/model-mining-conditions-em944.pdf">http://www.ehp.qld.gov.au/land/mining/pdf/model-mining-conditions-em944.pdf</a>).</p> <p><b>R20.</b> The full details of the environmental monitoring to be carried out under the WQMP / REMP would need to be reviewed to ensure that the program is well designed enough to (a) to assess the potential impact of any release of mine affected water on EVs; (b) to test the accuracy of an environmental impact statement and whether management and mitigation measures are effective and (c) to set and / or amend release limits and trigger levels for specific water quality parameters and related conditions within an approval)</p>	<p>activity. This must include monitoring the effects of the mine on the receiving environment periodically (under natural flow conditions) and while mine affected water is being discharged from the site. For the purposes of the REMP, the receiving environment is the waters of the XX and connected or surrounding waterways within XX (for example, Xkm) downstream of the release. The REMP should encompass any sensitive receiving waters or environmental values downstream of the authorised mining activity that will potentially be directly affected by an authorised release of mine affected water.</p> <p>(D21) A REMP Design Document that addresses the requirements of the REMP must be prepared and made available to the administrating authority upon request.</p> <p>(D22) A report outlining the findings of the REMP, including all monitoring results and interpretations must be prepared annually and made available on request to the administrating authority. This must include an assessment of background reference water quality, the condition of downstream water quality compared against water quality objectives, and the suitability of current discharge limits to protect downstream environmental values.</p>

RTI DL Release



## Phillips Erin

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**From:** Savage Ross  
**Sent:** Thursday, 29 August 2013 8:01 AM  
**To:** Rhodes Monika  
**Cc:** DAFF\_EIS Unit  
**Subject:** DAFF EIS response to the amended EIS for the Springsure Creek Coal Mine Project

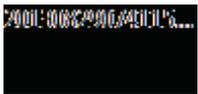
Good morning

Dear Dr Rhodes

I refer to your email of 15 August 2013 regarding the amended Environmental Impact Statement (EIS) for the Springsure Creek Coal Mine Project.

Thank you for providing Department of Agriculture, Fisheries and Forestry (DAFF) with the opportunity to review and comment on the amended EIS.

DAFF has reviewed the amended EIS and has provided comments. Please find attached DAFF's response letter.



The letter was posted to you today.

Please do not hesitate to contact me if you have any questions.

Kind regards

**Ross Savage**  
DAFF EIS Coordination  
Agricultural Resources & Planning  
**Department of Agriculture, Fisheries and Forestry**

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topic	concern	response/way forward
<p><b>Agricultural productivity – Critical</b></p> <ul style="list-style-type: none"> <li>Baseline data on production – productivity, costing, modellings etc</li> <li>Baseline is need to measure outcomes</li> <li>Consider economic returns to affected properties</li> </ul>	<ul style="list-style-type: none"> <li>clearly articulate this in EIS</li> <li>detail if information has been requested from landholders, and the results of this engagement</li> <li>if using comparative studies, state what, where and why – show why appropriate</li> <li>concerns that ACRC is seen as an attempt to push this issue at arms length away from the mine and any impacts from it.</li> </ul>	
<p><b>Coexistence - Critical</b></p> <ul style="list-style-type: none"> <li>agricultural land use protection</li> <li>reduce uncertainty to affected landholders</li> <li>impacts - avoid, mitigate, compensate strategies</li> </ul>	<ul style="list-style-type: none"> <li>clearly define and state your intentions? Is it going to be mutually beneficial or do you expect give way?</li> <li>provide timelines on when impacts expected is it 5 or 9 years?</li> <li>commit to use DenLo Park to prove up your strategies on subsidence and related impacts to farming systems and financial modelling before impacting the other five properties</li> <li>what will you do if results do not meet expectations? <ul style="list-style-type: none"> <li>If material impacts are realised by landholders, what do you commit to do?</li> <li>how do you intend protect landholders from legacy issues after the mine operations cease e.g. rehabilitation strategies</li> </ul> </li> <li>Provide a templates of <ul style="list-style-type: none"> <li>CCA and details on how costs and impacts will be captured and review mechanisms will work</li> <li>Agricultural Management Plans for the management of productivity, cropping practices and farming systems.</li> </ul> </li> <li>Do you commit to provide updated subsidence modelling to all potentially affected properties, both inside and outside MLA?</li> </ul>	
<p><b>Cumulative impacts</b> – are asking DEHP to consider</p>	<ul style="list-style-type: none"> <li>impacts from the whole project on agriculture including transport corridor and associated issues – see above</li> </ul>	
<p><b>Biosecurity</b> cooperate with landholders and local government</p>	<ul style="list-style-type: none"> <li>provide a list of plant species declared under local law</li> <li>best practice management for control and disposal of weeds and pest animals</li> <li>prevent entry and spread of weeds and pest animals</li> <li>recognise the need to control locusts</li> <li>align to local government priorities</li> </ul>	
<p>Fisheries</p>	<ul style="list-style-type: none"> <li>do you commit to consulting DAFF during the detailed design stages for waterway barrier works, irrespective of location?</li> </ul>	





Reference: SCCMP aEIS

Department of  
Agriculture, Fisheries  
and Forestry

27 August 2013

Dr Monika Rhodes  
EIS Coordinator: Springsure Creek Coal Mine Project  
Statewide Environmental Assessments  
Department of Environment and Heritage Protection  
GPO Box 2454  
**BRISBANE QLD 4001**

Dear Dr Rhodes

I refer to your email of 15 August 2013 regarding the amended Environmental Impact Statement (EIS) for the Springsure Creek Coal Mine Project. Thank you for providing the Department of Agriculture, Fisheries and Forestry (DAFF) with the opportunity to review and comment on the amended EIS.

DAFF notes that the amended EIS considers the concerns identified and raised by DAFF in the advice to the Department of Environment and Heritage Protection dated 10 July 2013, and subsequent meetings between DAFF and the Proponent. These concerns included agricultural productivity (including productivity loss, farming systems costs and economic returns), continuity of agricultural land use and coexistence with resource development activities, the assessment of the cumulative impacts of the broader Springsure project, and biosecurity and fisheries matters.

The respective business areas across DAFF have reviewed the amended EIS and have advised that there are no outstanding issues. The Proponent has adequately acknowledged, addressed and identified approaches to resolve such concerns. On this basis, I write to advise that the Proponent undertakings, through commitments and processes as detailed in the amended EIS and associated materials, are acceptable to DAFF for the consideration of this project.

Could you please forward any future correspondence on this matter to the DAFF EIS Coordinator, Mr Ross Savage and also to the [daff\\_eis\\_unit@daff.qld.gov.au](mailto:daff_eis_unit@daff.qld.gov.au) mailbox.

Mr Savage's contact details are: DAFF EIS Coordinator  
Attention: Ross Savage  
Department of Agriculture, Fisheries and Forestry  
Primary Industries Building  
Level 6, 80 Ann Street  
Brisbane Qld 4000  
T: 07 3405 6535, F: 07 3239 3074  
E: [ross.savage@daff.qld.gov.au](mailto:ross.savage@daff.qld.gov.au)

Yours sincerely

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sch4p4(6) Pe

**Elton Miller**  
**General Manager**  
**Strategic Policy and Planning**  
**Department of Agriculture, Fisheries and Forestry**

RTI DL Release

## Phillips Erin

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**From:** Eva Holt <eva.holt@derm.qld.gov.au>  
**Sent:** Friday, 16 August 2013 1:58 PM  
**To:** Holt Eva; Rhodes Monika; Rowland Philip  
**Cc:** Mann Reinier; WorkRequests Water  
**Subject:** WRNB ID 836 - Work Request Response - Springsure Creek Coal Mine Project SEIS Review – further comments : Other - SEIS Review - Springsure Creek Coal Pty Ltd - Springsure Creek Coal Mine Project  
**Attachments:** WRNB\_response\_836\_RM.docx

Service Group: Water (WAS)  
Request Task: Other - SEIS Review  
Proponent / Company: Springsure Creek Coal Pty Ltd  
Facility Name: Springsure Creek Coal Mine Project  
Facility Location: 47 km SE of Emerald  
Project File Details: CBD/111013  
Date of Request: 14/08/2013 12:00:00 AM  
Due Date of Request: 4/09/2013 12:00:00 AM  
Urgency: Normal  
Client Region: Central Office  
Category: Mining

Hey Monika,

Here are our comments on the SEIS amendments. Let me know if you or Kylie have any questions.

Cheers Eva

--  
Eva Holt  
Email: [eva.holt@derm.qld.gov.au](mailto:eva.holt@derm.qld.gov.au)

To view more information about this work request visit: [More Info](#)

### Request Summary

Service Group	Water (WAS)		
Status	Completed	Hours Worked	4
Request Task	Other - SEIS Review	Proponent / Company	Springsure Creek Coal Pty Ltd
Facility Name	Springsure Creek Coal Mine Project	Facility Location	47 km SE of Emerald
Project File	CBD/111013	Date of	14/08/2013



### Request Summary

Details	Request	12:00:00 AM
Due Date of Request	4/09/2013 12:00:00 AM	Urgency Normal
Client Region	Central Office	Category Mining

### Requesting Officer

First Name	Monika	Last Name	Rhodes
Phone	3330 6293	Office	400 George Street, Brisbane Qld 4000
Region	Central	Position	Principal Environmental Officer
Email	<a href="mailto:Monika.Rhodes@ehp.qld.gov.au">Monika.Rhodes@ehp.qld.gov.au</a>		

### Manager

Manager First Name	Philip	Manager Last Name	Rowland
Manager Phone	3330 5602	Manager Position	Project Manager
Manager Email	<a href="mailto:Philip.Rowland@ehp.qld.gov.au">Philip.Rowland@ehp.qld.gov.au</a>		

### Request Details

Dear All

Springsure Creek Pty Ltd (Bandanna Energy) has resubmitted their EIS with amendments and response to comments made by DAFF, DNRM, DSITIA and EHP.

Please review the amended EIS and response to comments in light of the comments you have provided us in July 2013. I understand that Pete Jones has emailed all information directly to each of the departments. Please let me know if there were any problems (i.e. outstanding issues) as soon as possible.

Your submission will need to be with EHP (to me as the EIS coordinator) by 4 September 2013 (yesterday was a public holiday in Brisbane).

## Request Details

If you have any questions, please don't hesitate to contact me or Phil Rowland (who is looking after this project during my leave in August).

Kind regards

Dr Monika Rhodes  
Principal Environmental Officer  
Statewide Environmental Assessments  
**Telephone** 07 3330 6293 **Facsimile** 3330 5875  
**Email:** [monika.rhodes@ehp.qld.gov.au](mailto:monika.rhodes@ehp.qld.gov.au)  
[www.ehp.qld.gov.au](http://www.ehp.qld.gov.au)

Department of Environment and Heritage Protection  
Level 9, 400 George Street, Brisbane Q 4000  
GPO Box 2454, Brisbane Q 4001

## Relevant Documents

Hi Monika, Eva, Rainer,

Please find attached our response to your comments on the SCC EIS as per our recent discussions.

The updated EIS can be accessed from our project website with all changes highlighted in yellow within the document:  
<http://www.springsurecreekproject.com.au/project-development-and-approvals/springsure-creek-coal-mine-eis>

The webpage also includes a link to a new addendum which lists all the changes made to the EIS since the June issue:  
[http://www.springsurecreekproject.com.au/assets/library/Springsure\\_Creek\\_Coal\\_EIS/Revised\\_EIS\\_Chapters/Addendum\\_Changes\\_Made.pdf](http://www.springsurecreekproject.com.au/assets/library/Springsure_Creek_Coal_EIS/Revised_EIS_Chapters/Addendum_Changes_Made.pdf)

We trust your concerns are fully addressed and thank you for your inputs to the Project to date.

Thanks,

Pete

**Pete Jones**

*Environmental Approvals Coordinator*

**BANDANNA ENERGY LIMITED**

## Relevant Documents

Telephone No: 07 3041 4400

Direct No: 07 3041 4434

Fax No: 07 3041 4444

Email: [petejones@bandannaenergy.com.au](mailto:petejones@bandannaenergy.com.au)

### Justification

Review of SEIS in regards to your submission made regarding water quality and aquatic ecosystem health issues. No field investigation or monitoring involved.

### Other

Budget Availability

Previous Contacts

### Attachments

RTI DL Release

## Phillips Erin

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**From:** Rhodes Monika  
**Sent:** Thursday, 15 August 2013 7:20 AM  
**To:** Dunlop Kylie; Holt Eva; Mann Reinier; Smith Wedeena; Rowland Philip; Savage Ross; Wirth Jacqueline  
**Subject:** RE: SCC EIS submission

Dear All

Springsure Creek Pty Ltd (Bandanna Energy) has resubmitted their EIS with amendments and response to comments made by DAFF, DNRM, DSITIA and EHP.

Please review the amended EIS and response to comments in light of the comments you have provided us in July 2013. I understand that Pete Jones has emailed all information directly to each of the departments. Please let me know if there were any problems (i.e. outstanding issues) as soon as possible.

Your submission will need to be with EHP (to me as the EIS coordinator) by **4 September 2013** (yesterday was a public holiday in Brisbane).

If you have any questions, please don't hesitate to contact me or Phil Rowland (who is looking after this project during my leave in August).

Kind regards

Dr Monika Rhodes  
Principal Environmental Officer  
Statewide Environmental Assessments  
**Telephone** 07 3330 6293 **Facsimile** 3330 5875  
**Email:** [monika.rhodes@ehp.qld.gov.au](mailto:monika.rhodes@ehp.qld.gov.au)  
[www.ehp.qld.gov.au](http://www.ehp.qld.gov.au)

Department of Environment and Heritage Protection  
Level 9, 400 George Street, Brisbane Q 4000  
GPO Box 2454, Brisbane Q 4001

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**From:** Pete Jones [<mailto:PeteJones@bandannaenergy.com.au>]  
**Sent:** Tuesday, 13 August 2013 3:36 PM  
**To:** Holt Eva; Mann Reinier; Rhodes Monika  
**Cc:** Jen Mason  
**Subject:** SCC EIS submission  
**Importance:** High

Hi Monika, Eva, Rainer,

Please find attached our response to your comments on the SCC EIS as per our recent discussions.

The updated EIS can be accessed from our project website with all changes highlighted in yellow within the document: <http://www.springsurecreekproject.com.au/project-development-and-approvals/springsure-creek-coal-mine-eis>

The webpage also includes a link to a new addendum which lists all the changes made to the EIS since the June issue:

[http://www.springsurecreekproject.com.au/assets/library/Springsure Creek Coal EIS/Revised EIS Chapters/Addendum - Changes Made.pdf](http://www.springsurecreekproject.com.au/assets/library/Springsure_Creek_Coal_EIS/Revised_EIS_Chapters/Addendum_-_Changes_Made.pdf)

We trust your concerns are fully addressed and thank you for your inputs to the Project to date.

Thanks,  
Pete

**Pete Jones**

*Environmental Approvals Coordinator*

**BANDANNA ENERGY LIMITED**

Telephone No: 07 3041 4400

Direct No: 07 3041 4434

Fax No: 07 3041 4444

Email: [petejones@bandannaenergy.com.au](mailto:petejones@bandannaenergy.com.au)

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RTI DL Release



## Phillips Erin

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**From:** Rhodes Monika  
**Sent:** Tuesday, 23 July 2013 1:38 PM  
**To:** Smith Wedeena; Hambleton Alison; Dunlop Kylie; Savage Ross  
**Cc:** Rowland Philip  
**Subject:** Springsure Creek - new timeline

Dear All

Thanks for assisting EHP in making the decision on the adequacy of the supplementary EIS (=amendments on the EIS) for the Springsure Creek Coal Mine Project. Please note that the proponent has verbally requested an extension up to 16 August 2013, although EHP has given the proponent 40 bd to submit any amendments on the EIS based on DAFF's, DNRM's and EHP's review/comments (starting from Monday 22 July 2013).

Once the proponent has submitted the amended EIS, including a full response to your submissions (comments) on the SEIS, EHP has 20 bd to make the decision. During this time we will ask you kindly to review the response and the amendments against the concerns outlined in your submissions (within 15 bd). We made it clear to the proponent that it would be better to get in touch with you during the process so that any outstanding issues can be dealt with before the EIS is resubmitted to EHP.

Please keep me updated on any communications and outcomes with the proponent during this time.

If you have any further questions, please don't hesitate to contact me.

Kind regards

Monika

Dr Monika Rhodes  
Principal Environmental Officer  
Statewide Environmental Assessments  
**Telephone** 07 3330 6293 **Facsimile** 3330 5875  
**Email:** [monika.rhodes@ehp.qld.gov.au](mailto:monika.rhodes@ehp.qld.gov.au)  
[www.ehp.qld.gov.au](http://www.ehp.qld.gov.au)

Department of Environment and Heritage Protection  
Level 9, 400 George Street, Brisbane Q 4000  
GPO Box 2454, Brisbane Q 4001

## Phillips Erin

**From:** WRNB System Administrator <water.workrequests@derm.qld.gov.au>  
**Sent:** Thursday, 15 August 2013 7:47 AM  
**To:** Rhodes Monika  
**Cc:** Rowland Philip  
**Subject:** WRNB ID 836 - New Water Work Request Created : Other - SEIS Review - Springsure Creek Coal Pty Ltd - Springsure Creek Coal Mine Project

A new work request has been submitted to the Work Request Notice Board.

Service Group: Water (WAS)  
Request Task: Other - SEIS Review  
Proponent / Company: Springsure Creek Coal Pty Ltd  
Facility Name: Springsure Creek Coal Mine Project  
Facility Location: 47 km SE of Emerald  
Project File Details: CBD/111013  
Date of Request: 14/08/2013 12:00:00 AM  
Due Date of Request: 4/09/2013 12:00:00 AM  
Urgency: Normal  
Client Region: Central Office  
Category: Mining

To view more information about this work request visit: [More Info](#)  
To view the responsible officers for this work request visit: [Responsible Officers](#)  
To view a list of recent work requests please visit the [Work Request Notice Board](#)

You have received this email because you are either the requesting or managing officer.

### Request Summary

Service Group	Water (WAS)		
Status	New	Hours Worked	0
Request Task	Other - SEIS Review	Proponent / Company	Springsure Creek Coal Pty Ltd
Facility Name	Springsure Creek Coal Mine Project	Facility Location	47 km SE of Emerald
Project File Details	CBD/111013	Date of Request	14/08/2013 12:00:00 AM
Due Date of Request	4/09/2013 12:00:00 AM	Urgency	Normal
Client Region	Central Office	Category	Mining

### Requesting Officer

## Requesting Officer

First Name: Monika Last Name: Rhodes  
Phone: 3330 6293 Office: 400 George Street, Brisbane Qld 4000  
Region: Central Position: Principal Environmental Officer  
Email: [Monika.Rhodes@ehp.qld.gov.au](mailto:Monika.Rhodes@ehp.qld.gov.au)

## Manager

Manager First Name: Philip Manager Last Name: Rowland  
Manager Phone: 3330 5602 Manager Position: Project Manager  
Manager Email: [Philip.Rowland@ehp.qld.gov.au](mailto:Philip.Rowland@ehp.qld.gov.au)

## Request Details

Dear All

Springsure Creek Pty Ltd (Bandanna Energy) has resubmitted their EIS with amendments and response to comments made by DAFF, DNRM, DSITIA and EHP.

Please review the amended EIS and response to comments in light of the comments you have provided us in July 2013. I understand that Pete Jones has emailed all information directly to each of the departments. Please let me know if there were any problems (i.e. outstanding issues) as soon as possible.

Your submission will need to be with EHP (to me as the EIS coordinator) by 4 September 2013 (yesterday was a public holiday in Brisbane).

If you have any questions, please don't hesitate to contact me or Phil Rowland (who is looking after this project during my leave in August).

Kind regards

Dr Monika Rhodes



## Request Details

Principal Environmental Officer  
Statewide Environmental Assessments  
**Telephone** 07 3330 6293**Facsimile** 3330 5875  
**Email:** [monika.rhodes@ehp.qld.gov.au](mailto:monika.rhodes@ehp.qld.gov.au)  
[www.ehp.qld.gov.au](http://www.ehp.qld.gov.au)

Department of Environment and Heritage Protection  
Level 9, 400 George Street, Brisbane Q 4000  
GPO Box 2454, Brisbane Q 4001

## Relevant Documents

Hi Monika, Eva, Rainer,

Please find attached our response to your comments on the SCC EIS as per our recent discussions.

The updated EIS can be accessed from our project website with all changes highlighted in yellow within the document:  
<http://www.springsurecreekproject.com.au/project-development-and-approvals/springsure-creek-coal-mine-eis>

The webpage also includes a link to a new addendum which lists all the changes made to the EIS since the June issue:  
[http://www.springsurecreekproject.com.au/assets/library/Springsure\\_Creek\\_Coal\\_EIS/Revised\\_EIS\\_Chapters/Addendum\\_Changes\\_Made.pdf](http://www.springsurecreekproject.com.au/assets/library/Springsure_Creek_Coal_EIS/Revised_EIS_Chapters/Addendum_Changes_Made.pdf)

We trust your concerns are fully addressed and thank you for your inputs to the Project to date.

Thanks,

Pete

**Pete Jones**

*Environmental Approvals Coordinator*

**BANDANNA ENERGY LIMITED**

Telephone No: 07 3041 4400

Direct No: 07 3041 4434

Fax No: 07 3041 4444

Email: [petejones@bandannaenergy.com.au](mailto:petejones@bandannaenergy.com.au)

## Justification

Review of SEIS in regards to your submission made regarding water

**Justification**

quality and aquatic ecosystem health issues. No field investigation or monitoring involved.

**Other**

Budget Availability

Previous Contacts

**Attachments**

RTI DL Release

