



Approval

Springsure Creek Coal Project (EPBC 2010/5782)

This decision is made under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Proposed action

person to whom the approval is granted Springsure Creek Coal Pty Ltd

proponent's ACN (if applicable) ABN: 73 119 713 601

proposed action To develop and operate a greenfield underground long wall coal mine and associated infrastructure approximately 40 kilometres south of Emerald, Queensland within the Bowen Basin. See EPBC Act referral EPBC 2010/5782.

Approval

Controlling Provision	Decision
Listed threatened species and communities (sections 18 & 18A)	Approve
Listed migratory species (sections 20 & 20A)	Approve
A water resource, in relation to coal seam gas development and large coal mining development (sections 24D & 24E)	Approve

conditions of approval

This approval is subject to the conditions specified below.

expiry date of approval

This approval has effect until 20 October 2042

Decision-maker

name and position Deb Callister
Assistant Secretary
Queensland and Sea Dumping Assessment Branch

Signature

date of decision

6 June 2014

Conditions attached to the approval

Project area

1. The *project area* located 40 kilometres south of Emerald, Queensland is the area designated in Attachment A1 – A4 and includes areas contained within mine lease applications (MLA) 70486 (Springsure Creek Coal (SCC) mine), 70501 (train loadout) and 70502 (infrastructure corridor).
2. The **approval holder** must not clear outside of the *project area*.

EPBC Management Plan

3. To ensure the protection of EPBC listed Matters of National Environmental Significance (**MNES**) the **approval holder** must submit an *EPBC Management Plan* (EPBC MP) at least three months prior to the intended date of **substantial commencement of the action**. The **approval holder** must not **substantially commence the action** until the **Minister** has approved the EPBC MP in writing. The approved EPBC MP must be implemented. The EPBC MP must include, but not be limited to, the following information:
 - a) a detailed plan to establish baseline conditions, performance indicators and discuss methods for adaptive management for **MNES** within the project site. This must include but not be limited to:
 - i. a description (prior to any management activities, hence a baseline) of the current condition and location (GPS Reference) of the extant **MNES** within the project site. This baseline must be established within 6 months after this approval;
 - ii. the quantity of **MNES** or **habitat** for **MNES** (in hectares), found within the project area;
 - iii. the **condition class** of **MNES** or **habitat** for **MNES** found within the project area;
 - iv. vegetation condition mapping;
 - v. photo reference points;
 - vi. **tree age class** representation;
 - vii. percentage tree canopy cover;
 - viii. number of native plant species in ground layer;
 - ix. percentage of native and foreign grass cover and whether the grass species are annual or perennial;
 - x. description of fauna **habitat** including condition, type and connectivity; and
 - xi. bird and reptile surveys.
 - b) a detailed plan to regularly monitor the condition **MNES** within the project site during and after subsidence activities. This must include but not be limited to:
 - i. the timing and frequency of monitoring activities;
 - ii. the method that will be used to monitor the condition of **MNES**;
 - iii. conditions that might trigger additional monitoring activities;
 - iv. establishing trigger points for when disturbance of **MNES** have occurred to an extent that management of **MNES** will be required;
 - v. what these management activities might look like if triggers are exceeded; and
 - vi. establishing trigger points for when disturbance of **MNES** have occurred to an extent that offsetting will be required.

Note 1: To ensure efficiency the approval holder may prepare and align the EPBC MP with the requirements of the Queensland Government, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.

Report MNES disturbances

4. If **impacts** to **MNES** should occur, or are predicted to occur, as a result of development and or operation of the mine, infrastructure corridor or train loadout facility associated with the Springsure Creek Coal Project, the **approval holder** must within 20 business days of occurrence notify the **Department** in writing. This notification must provide:
 - a) the amount of disturbance in hectares for **MNES**;
 - b) whether the management monitoring, **MNES** management and/or offset trigger levels described in condition 3b have been reached; exceeded;
 - c) whether the offset trigger levels described in condition 3b have been exceeded;
 - d) a description of how the **impacts** on **MNES** will be managed; and
 - e) if approved offset trigger limits have been exceeded, timeframes for providing a *Biodiversity Offset Management Plan* (BOMP) (described in condition 6).
5. The **Minister** may accept the timeframe provided by the **approval holder** (in condition 4e) to provide a BOMP or prescribe a timeframe for submission of the BOMP which the **approval holder** must adhere to. The **Minister** may define, as part of the timeframe for submission of the BOMP, certain activities which the **approval holder** must not undertake until the Minister has approved the BOMP. The **approval holder** may request in writing that the **Minister** vary the timeframe for submission of the BOMP. The **Minister** may vary in writing the timeframe for submission of the BOMP which the **approval holder** must adhere to.

Biodiversity Offset Management Plan

6. To compensate for **impacts** on **MNES** (reported to the **Department** under condition 4), the **approval holder** must submit a BOMP to the **Minister** for approval. The approved BOMP must be implemented.
7. The BOMP must include, but not be limited to, the following information:
 - a) details of the **offset attributes** (including maps in electronic Geographic Information System (GIS) format with accompanying **shapefiles**), site descriptions, environmental values relevant to **MNES**, connectivity with other **habitat** and biodiversity corridors, a rehabilitation program, and conservation and management measures for long-term protection;
 - b) a detailed survey and description of the offset site to clearly identify baseline conditions, establish performance indicators and discuss methods for adaptive management. This must include but not be limited to:
 - i. a description (prior to any management activities, hence a baseline) of the current condition of the extant vegetation of each offset area.
 - ii. location of ecological survey points (GPS reference);
 - iii. the quantity of **MNES** or **habitat** for **MNES** (in hectares), found within the project area;
 - iv. the **condition class** of **MNES** or **habitat** for **MNES** found within the each offset area;
 - v. vegetation condition mapping;
 - vi. photo reference points;
 - vii. **tree age class** classification;
 - viii. percentage tree canopy cover;
 - ix. number of native plant species in ground layer;
 - x. percentage of native and foreign grass cover and whether the grass species are annual or perennial ;

- xi. description of fauna **habitat** including condition, type and connectivity; and
 - xii. bird and reptile surveys.
- c) plans to improve upon the baseline condition of **MNES** at the offset site. These plans must include:
- i. a map showing areas to be managed;
 - ii. management actions for each area and details of methods to be used. These must include:
 - a. actions consistent with objectives stated in **relevant threat abatement plans**; and
 - b. weed control measures to reduce/control the presence of foreign weeds within the proposed offset.
 - iii. timing of management activity for each area;
 - iv. performance criteria for each area;
 - v. a set of measurable ecological indicators for detecting changes to **MNES** or **habitat** for **MNES** that may be ascribed to ongoing water stress;
 - vi. a monitoring plan to assess the success of the management activities measured against the baseline condition. The monitoring must be statistically robust and able to quantify change in the condition of the **MNES** or **habitat** for **MNES**. This should include, but not be limited to, control sites and periodic ecological surveys to be undertaken by a **qualified ecologist**;
 - vii. a description of the potential risks to successful management against the performance criteria, and a description of the contingency measures that would be implemented to mitigate these risks;
 - viii. a process to report to the **Department**, the progress of management activities undertaken in the offset areas and the outcome of those activities, including identifying any need for improved management and activities to undertake such improvement; and
 - ix. details of any parties responsible for management, monitoring and implementing the management activities, including their position title and work relationship to the approval holder;
- d) a completed **offsets assessment guide** for the proposed offset site and a discussion as to how figures used to complete the **offsets assessment guide** were derived.

Mechanism to secure offsets

8. The **approval holder** must within 2 years of the BOMP being approved provide evidence that the offset areas approved by the **Minister** in the BOMP will be protected in perpetuity through a legal mechanism that would provide the equivalent protection of a conservation covenant.

Rewan Formation Connectivity Research Plan

9. The **approval holder** must submit for the approval of the **Minister** a Rewan Formation Connectivity Research Plan ('Research Plan') that characterises the Rewan Formation, for the **Minister's** approval. The Research Plan must include but is not limited to the following:
- a) research aims;
 - b) methods, including for collection of field data and seismic surveys, to determine the type, extent and location of faulting and fracturing and an examination of the hydraulic properties of the Rewan Formation, to better characterise the Rewan Formation's hydraulic conductivity and the contribution of fractures and faults to connectivity;
 - c) appropriate geological, hydrological and hydrogeochemical methods for investigating aquitard integrity;

- d) identification of means for assessing subsidence impacts on the Rewan Formation, including its effect on aquifer connectivity;
- e) personnel responsible for conducting research and their qualifications;
- f) timeframes for research and reporting;
- g) an explanation of how research will inform the future **Bioregional Assessment for the Lake Eyre Basin**; and
- h) an explanation of how outputs will inform the *Groundwater Monitoring and Management Plan*.

10. The Research Plan must be peer reviewed by a **suitably qualified expert** approved by the **Minister** in writing. The peer review and the Research Plan must be submitted together to the **Minister** for approval. The **approval holder** must submit the Research Plan to the **Department** at least three months prior to the date by which the **approval holder** plans **substantial commencement of the action**. The findings of the research outputs of the Research Plan must be published on the **approval holder's** website and submitted to the **Department** in accordance with the timeframes approved by the **Minister** for reporting. The **approval holder** must not **substantially commence the action** until the **Minister** has approved the Research Plan in writing. The approved Research Plan must be implemented.

Groundwater Monitoring and Management Plan

11. The **approval holder** must submit a *Groundwater Monitoring and Management Plan* (GMMP) for the **Minister's** approval at least three months prior to the date by which the **approval holder** plans **substantial commencement of the action**. The **approval holder** must not **substantially commence the action** until the GMMP has been approved by the **Minister** in writing. The approved GMMP must be implemented.

Note 2: To ensure efficiency the approval holder may prepare and align the GMMP with the requirements of the Queensland Government, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.

12. The GMMP must include information provided in the Groundwater Monitoring and Management Plan required in Queensland Environment Approval (EPML00961613). The GMMP must also:

- a) include groundwater drawdown and quality triggers and limits as defined in the Queensland Environmental Approval (EPML00961613);
- b) detail a monitoring program (including monitoring locations, parameters to be measured and monitoring frequency) that will enable changes in groundwater drawdown, groundwater quality, stream baseflows and subsidence to be measured. This program must also enable identification of local and regional cumulative **impacts**; include and discuss data from alluvial and basalt aquifers and strata underlying the Rewan and Bandana formations, with a consideration of flow paths through these formations to inform the groundwater conceptualisation and model boundaries or boundary conditions;
- c) include information related to the extent of hydrological interactions, including the role of faults in transmitting or impeding groundwater flow;
- d) include substantiated consideration of surface water-groundwater interactions and groundwater dependent ecosystems, including any changes to these system components as mining progresses;
- e) discuss what risk based threshold responses the **approval holder** will take and the timeframes in which those actions will be undertaken if triggers and limits are exceeded or likely to be exceeded for:
 - i. groundwater drawdown and groundwater quality;
 - ii. stream baseflows;
 - iii. groundwater dependent ecosystems; and

- iv. subsidence.
 - f) provide commitments, including timeframes, to periodically review, update and implement the **numerical groundwater model** and the GMMP throughout the life of the mine. The first review must be completed within six months of a 2 year groundwater monitoring data set becoming available. The revised **numerical groundwater model** must be peer reviewed;
 - g) discuss how outcomes of the updated **numerical groundwater model** will be used to update the GMMP;
 - h) demonstrate commitments to working with other groundwater users in the region (including but not limited to bore licensees, irrigators and mines) in order to create a better understanding of the water balance in the region; and
 - i) include provisions to make water monitoring results publicly available on the **approval holder's** website. The results must include:
 - i. the methods used to collect data;
 - ii. the assumptions and uncertainties that were incorporated into the **numerical groundwater model**; and
 - iii. a discussion of the results and how groundwater is being **impacted** locally and regionally.
13. The GMMP must be peer reviewed by a **suitably qualified expert** who must be approved by the **Minister** in writing. The peer review must be submitted to the **Minister** at the same time the GMMP is submitted to the **Minister** for approval.

Exceedance of groundwater quality limits

14. The **approval holder** must:
- a) report exceedances of groundwater quality triggers and limits to the **Department** within 10 business days of the monitored exceedance; and
 - b) provide written advice to the **Department**, within 3 months of the occurrence of the monitored exceedance, stating the direct cause of, and the actions taken in response to, the exceedance and management responses.

General

15. Within 10 business days after the **commencement of construction**, the **approval holder** must advise the **Department** in writing of the actual date of **commencement of construction**.
16. Within 3 months of every 12 months anniversary of the **commencement of construction**, the **approval holder** must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any plans as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the **Department** at the same time as the compliance report is published. The **approval holder** must also notify any non-compliance with this approval to the **Department** in writing within 2 business days of becoming aware of the non-compliance.
17. Upon the direction of the **Minister**, the **approval holder** must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the **Minister**. The independent auditor must be approved by the **Minister** prior to the commencement of the audit. Audit criteria must be agreed to by the **Minister** and the audit report must address the criteria to the satisfaction of the **Minister**.
18. If the **approval holder** wishes to carry out any activity otherwise than in accordance with the plans, as specified in the conditions, the **approval holder** must submit to the **Department** for the **Minister's** written approval a revised version of that plan. The varied

activity shall not commence until the **Minister** has approved the revised plan in writing. The **Minister** will not approve a revised plan, unless the revised plan would result in an equivalent or improved environmental outcome. If the **Minister** approves the revised plan that plan must be implemented in place of the plan originally approved.

19. If the **Minister** believes that it is necessary or convenient for the better protection of listed threatened species and communities or listed migratory species to do so, the **Minister** may request that the **approval holder** make specified revisions to the various management plans specified in the conditions and submit the revised plan for the **Minister's** written approval. The **approval holder** must comply with any such request. The revised approved plan must be implemented. Unless the **Minister** has approved the revised plan then the **approval holder** must continue to implement the originally approved plan, as specified in the conditions.
20. If at any time after 5 years from the date of this approval, the **approval holder** has not **substantially commenced the action**, then the **approval holder** the action must not **substantially commence the action** without the written agreement of the **Minister**.
21. The **approval holder** must maintain accurate records substantiating all activities and outcomes associated with or relevant to the above conditions of approval, including measures taken to implement the management plans required by this approval, and make them available upon request to the **Department**. Such records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the **Department's** website. The results of audits may also be publicised through the general media.
22. Unless otherwise agreed to in writing by the **Minister**, the **approval holder** must publish all management plans referred to in these conditions of approval on their website. Each management plan must be published on the website within 1 month of being approved.

Definitions

Approval holder: means the person to whom the approval is granted.

Bioregional Assessment for the Lake Eyre Basin: is an assessment endorsed by the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC), which is being conducted in conjunction with relevant state and territory government agencies and natural resource management bodies. This bioregional assessment includes a scientific analysis of the ecology, hydrology and geology for the purpose of assessing the potential risks to water resources in the area as a result of the direct and indirect **impacts** of coal seam gas development or large coal mining development. Further information about the bioregional assessment can be found on the IESC's website at <http://iesc.environment.gov.au/bioregional-assessments.html>.

Condition class: refers to a classification of the quality of **habitat** for **MNES** and the environmental elements that define those classes. The information available on the **Department's** Species Profile and Threats Database (SPRAT) must be considered in defining these classes.

Commencement of construction: means any preparatory works required to be undertaken including clearing vegetation, the erection of any onsite temporary structures and the use of heavy duty equipment for the purpose of breaking the ground for mining, buildings or infrastructure.

Department: the Australian Government department responsible for the *Environment Protection and Biodiversity Conservation Act 1999*.

EPBC Act: means the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

EPBC Act Offsets Policy: means the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (October 2012) or any subsequent revision.

Habitat: has the definition assigned to it in section 528 of the **EPBC Act**.

Impact/s/ed: has the definition assigned to it in section 527E of the **EPBC Act**.

Minister - the **Minister** administering the *Environment Protection and Biodiversity Conservation Act 1999* and includes a delegate of the **Minister**.

Matters of National Environmental Significance/MNES: means matters of national environmental significance, being the relevant matters protected under Part 3 of the **EPBC Act**. This meaning also includes **habitat** for **EPBC listed species**.

Numerical groundwater model: means any computational method that represents an approximation of a water system that simulates hydraulic heads (and watertable elevations in the case of unconfined aquifers) and groundwater flow rates within and across the boundaries of the system under consideration. The **numerical groundwater model** must include groundwater drawdown and dewatering volumes for each hydrostratigraphic unit for the life of the project or until recovery, whichever is longer.

Offset attributes: means an '.xls' file capturing relevant attributes of the Offset property/properties, including the **EPBC Act** reference ID number, the physical address of the offset site, coordinates of the boundary points in decimal degrees, the **EPBC Act** protected matters that the offset compensates for, any additional **EPBC Act MNES** that are benefiting from the offset, and the size of the offset in hectares.

Offsets assessment guide: refers to the offsets assessment guide which accompanies the **EPBC Act Offsets Policy**. This guide is available on the **Department's** website and has been developed to give effect to the policy's requirements, utilising a balance sheet approach to quantify **impacts** and offsets.

Qualified ecologist: means a person who has professional qualifications, training, skills and/or experience related to ecology and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods or literature.

Shapefiles: means ESRI Shapefiles containing '.shp', '.shx' and '.dbf' files and other files capturing attributes of the Offset Area, including the shape, EPBC reference ID number and **EPBC Act MNES** present at the relevant site. Attributes should also be captured in '.xls' format. A geographically referenced raster 'img' file/s must be provided to provide context for the shapefiles.

Subsidence impacts: includes all **impacts** that can be reasonably attributed to subsidence caused by underground mining activities. These **impacts** include, but are not limited to, ponding and clearing

Suitably qualified expert: means a person who has professional qualifications, training, skills or experience related to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relative protocols, standards, methods or literature.

Substantially commence/d/ment (of) the action: refers to the first stage of the project in which coal is extracted.

Tree age class classification: refers to the age of the tree and whether the tree is classified as regrowth vegetation or remnant vegetation.







