

Your reference :
Our reference : C0000077
Contact : Marc Irvin, 02 6883 5348

Springvale Coal Pty Ltd
39052096769

Level 18, BT Tower
1 Market Street
SYDNEY CITY, NSW 2000
Australia

Dear Mr Le Roux

**APPLICATION FOR LICENCE TO HARM THREATENED SPECIES, POPULATIONS,
ECOLOGICAL COMMUNITIES OR TO DAMAGE THEIR HABITATS**

I refer to your application for a licence to harm threatened species, populations or ecological communities, and/or damage their habitats under section 91 of the Threatened Species Conservation Act 1995 (TSC Act) by undertaking restoration actions at East Wolgan Swamp, received by the Office of Environment and Heritage (OEH) on 16th August 2012.

I have considered the application and supporting information provided and I have determined that the proposed action is not likely to significantly affect threatened species, populations or ecological communities, or their habitats. Therefore, a licence is not required under the TSC Act for the proposed action.

A certificate to this effect has been issued (enclosed) under section 95 of the TSC Act subject to the conditions prescribed in the certificate.

You should note that it is an offence under section 133(4) of the National Parks and Wildlife Act 1974 to contravene or fail to comply with any condition or restriction attached to the certificate.

If you have any further questions in relation to this matter, please contact Marc Irvin on 02 6883 5348.

Yours sincerely



.....
Garry Germon
Senior Team Leader, North West ROG
Office of Environment and Heritage

Section 95(2) Certificate

Threatened Species Conservation Act 1995



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Issued To:

Springvale Coal Pty Ltd
39052096769

Level 18, BT Tower
1 Market Street
SYDNEY CITY, NSW 2000
Australia

Certificate no. : C0000077
Issue Date: 25th November 2013
Expiry date: 30th June 2024

I certify that the Proposed Action as described below is not likely to significantly affect threatened species, populations, ecological communities or their habitats and consequently the Proposed Action does not require a licence under the Threatened Species Conservation Act 1995.

An act that is the subject of this certificate is a defence against prosecution under sections 118A-118D of the National Parks and Wildlife Act 1974.

DESCRIPTION OF PROPOSED ACTION

The proposed action:

- A. Undertake remediation works in East Wolgan Swamp on the Newnes Plateau to restore hydrological and ecological function of this Newnes Plateau Shrub Swamp Endangered Ecological Community.

RELEVANT CONDITIONS

The holder of the certificate must ensure that:

1. All conditions listed in Appendix 1 are adhered to.

A handwritten signature in black ink, appearing to read "Garry Germon".

.....
Garry Germon

Senior Team Leader, North West ROG

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INFORMATION AND WARNINGS

- This certificate is issued under section 95(2) of the Threatened Species Conservation Act 1995.
- It is an offence against section 133(4) of the National Parks and Wildlife Act 1974, for the holder of this certificate to contravene or fail to comply with any condition or restriction of this certificate.
- The maximum penalty for a corporation is 200 penalty units and, in the case of a continuing offence, a further penalty of 20 penalty units for each day that the offence continues.
- The maximum penalty for an individual is 100 penalty units and, in the case of a continuing offence, a further penalty of 10 penalty units for each day that the offence continues.

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Appendix 1

Section 91 application name

East Wolgan Swamp remediation proposal

Certificate No: C0000077

Certificated conditions

This section 95(2) certificate is issued subject to the conditions specified below

These conditions are issued under section 95(3) of the *Threatened Species Conservation Act 1995*.

Section 95(3) of the *Threatened Species Conservation Act 1995* allows for a s.95(2) certificate to be issued either unconditionally or subject to conditions. In accordance with section 95(3) of the TSC Act, the following conditions apply to the rehabilitation actions for East Wolgan Swamp on the Newnes Plateau. These conditions should be read and implemented in combination with the rehabilitation actions described in the attached decision report for the s.91 application and resulting s.95 certificate allowing actions to be implemented.

Conditions Attached to the Certificate

1. Swamp excavation

The applicant (Mr Jacques Le Roux - Springvale Mine Manager) will undertake excavation of the northern slumping area of East Wolgan Swamp (to its base) to identify any visible crack, crevice or other void that may be present in the bedrock at the base of the swamp.

As part of the excavation:

- a) OEH is to be notified of, and updated on the expected date/s of the excavation works at the site. Centennial Coal shall liaise with the OEH North West Region office in Dubbo to ensure an OEH representative/s is on-site to inspect the completed excavation and discuss options for remediation,
- b) all findings are to be photographed, measured, described and documented to the fullest extent possible by suitably qualified and experience persons,
- c) only the area forming part of the slump, plus if needed, an additional area required to safely excavate to the swamp base, is to be excavated,
 - o an OEH representative is to be on site to approve the size of additional areas outside the are of slumping.
- d) prior to excavation all reasonable precautions shall be implemented to avoid further impacts to the swamp by external influences such as extreme weather events (e.g. planning works within suitable weather windows, temporary structures to ensure stability of excavation area during unexpected water flow etc.),
- e) upon completion of excavation of the northern slump area an on-site inspection and meeting with representatives of Centennial Coal, OEH, and other experts is to be held to understand, interpret, and discuss excavation findings. If possible this meeting should aim to:
 - o develop processes and methods for additional remediation works (if required), and
 - o reach agreement on how to implement such works within the shortest possible time frame.

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- f) The identification of any visible crack, crevice or other voids in the base of the swamp that requires additional remediation action (identified as part of 1(e) above) will trigger a review of the s.91 considerations, potentially resulting in a variation to the current s.95 certificate.

2. Storage locations

Temporary storage locations for excavated swamp material, externally material for use in soft engineering techniques, rehabilitation tools and other items associated with the project are to be:

- a) Covered with geo textile fabric for the protection of the swamp surface,
- b) Transported into the site by helicopter when carrying on foot is not practical,
- c) Situated as close to the area of final use as possible to avoid unnecessary impact to recovering and/or undisturbed areas of Endangered Ecological Community (EEC).

3. Monitoring

A monitoring plan designed to measure the success of restoration actions and inform the development and implementation of additional actions is to be developed and approved by OEH within 90 days of the certificate issue date. Additional on ground actions (where required) may include maintenance actions and must be consistent with the current s.95 certificate and enhance the potential for long term restoration of the swamp EEC.

3.1 Monitoring Plan

The monitoring plan shall include:

- a) clearly defined objectives, and performance criteria,
- b) monitoring of engineering structures, vegetation regeneration, water and moisture (see 3.2, 3.3 and 3.4 below), including the methodologies to be employed,
- c) schedule of monitoring frequency for each monitoring section below (3.2, 3.3, 3.4) over the next 10 years. Note that monitoring may be more frequent than reporting frequency (see 9(a-h) below),
- d) at least two swamp control sites with replicated methodologies consisting of similar swamps that have not been impacted by mine discharge water, subsidence cracking, or other detrimental influences,
- e) development of trigger points for corrective action, based on base line hydrological and vegetation data and/or existing monitoring data from nearby control swamps:
 - i. Triggers should aim to highlight data points that identify where a necessary and specific response is required, and
 - i. A list of likely corrective actions for each trigger shall be developed.
- f) Implementation of additional actions resulting from the monitoring is to be documented and reported to OEH (see 9 below). All monitoring reports are to be available on the Centennial Coal website,
- g) All monitoring data should be compared to baseline data (where available) and control site data.

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3.2 Monitoring of structures

The integrity of engineering structures is to be monitored regularly. Additional actions to stabilise, or otherwise improve the ability of these structures to restore the swamp are to be developed following each monitoring inspection.

Monitoring of structures shall include:

- a) Stability and integrity of soft engineering works,
- b) Regular scheduled site inspections by appropriately skilled persons (e.g. original soft engineering contractor),
- c) Additional site inspections by appropriately skilled persons (e.g. original soft engineering contractor) following high rainfall events, and
- d) Several photo monitoring points to visually document all soft engineering over time.

3.3 Vegetation monitoring

Vegetation monitoring shall include a series of quadrat based assessments located throughout the length of the East Wolgan Swamp in the area of mine water discharge flow impacts, as well as the areas of slumping. Monitoring within the quadrats should be undertaken by a botanist and should include measures of:

- a) Native and exotic species richness,
- b) Cover abundance of each native and exotic species using an appropriate scale,
- c) Height of growth forms (e.g. mosses, lichens and liverworts, grasses, forbs, sedges/reeds/rushes, climbers, ferns, small shrubs, large shrubs, trees),
- d) An appropriate index of grazing pressure on each growth form,
- e) Presence, abundance and identification of herbivore scats,
- f) An appropriate measure of vegetation health (e.g. 3 – 5 categories, each with a descriptive definition to be applied to each species/growth form), and
- g) All of the above at control sites.

3.4 Water and soil moisture monitoring

Water and soil moisture monitoring shall include:

- a) Monitoring of deep aquifers within the underlying geology,
- b) Soil moisture, including (but not limited to) moisture/shallow peizometers being placed adjacent to and immediately upstream of each vegetation quadrat,
- c) Rainfall,
- d) Water inflow and outflow, and
- e) Replication at control sites.

4. Weed Management

Management of invasive and noxious weeds associated with the swamp remediation project shall include:

- a) Plants declared in NSW as noxious weeds under s.7 of the Noxious Weeds Act 1993, and plants identified as Weeds of National Significance (WoNS) by DSEWPaC shall be

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documented (using techniques in 3.3 above), then removed by hand (or hand tools) as soon as possible after discovery and disposed of appropriately off site,

- b) The development of triggers in monitoring data that:
 - a. aims to highlight data points that identify other plant species with potential to harm the integrity of the Swamp EEC as it recovers, and
 - b. have specific responses to reduce and/or prevent impacts (this may included development of a weed management plan).

5. Brush Matting

The use of local plant material for brush matting is to be undertaken in line with the following guidance:

- a) Brush matting is primarily to be sourced from plants inside the swamp EEC,
- b) No more than 50% of an individual plant may be taken and used for brush matting,
- c) No more than 10% of shrubby plants from inside East Wolgan Swamp EEC are to be taken for brush matting; cutting locations of this maximum 10% is to be disperse across the swamp to avoid concentrated impacts in one area,
- d) Where plants outside the swamp are taken, only plant material from species known to occur in East Wolgan Swamp is to be used as brush matting in the swamp,
- e) Where possible a variety of plants species known from East Wolgan Swamp are to be sourced when using brush matting techniques,
- f) No threatened species are to be used for brush matting purposes,
- g) Removal of brush matting material is to be via use of hand operated tools only,
- h) In the case where Banksia is used as brush matting, cones/seed heads are to be removed prior to using in to the swamp,
- i) Jute netting or similar products may be used to stabilise brush matting over rehabilitation areas, and
- j) Contractors must be familiar with and be able to identify threatened species that may occur at the rehabilitation site, including areas where brush matting may be sourced.

6. Hygiene protocols

A review of the proposed hygiene protocol (provided within the s.91 application) to incorporate best practice protocols for prevention of site contamination by pathogens (e.g. chytrid fungus, cinnamon fungus, exotic rust fungus etc.), non-indigenous regenerative plant material, and seed is to be undertaken and approved by OEH prior to implementation. Site hygiene protocols should apply to movement of all tools, vehicles, machinery, reconstruction materials, and personnel (i.e. entering and leaving the site). The following documents should be considered (though not limited to these):

Management Plan for Myrtle Rust on the National Parks Estate

<http://www.environment.nsw.gov.au/pestsweeds/20110683myrtlerustmp.htm>

Infection of frogs by amphibian chytrid causing the disease chytridiomycosis

<http://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=20009>

Infection of native plants by *Phytophthora cinnamomi*

<http://www.environment.nsw.gov.au/threatenedSpeciesApp/profile.aspx?id=20026>

Environmental weeds

<http://www.environment.nsw.gov.au/pestsweeds/aboutweeds.htm>

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7. Introduced materials

Prior to introducing reconstruction materials to the rehabilitation site the applicant shall implement the following actions:

- a) Where sand is required to be imported from outside East Wolgan Swamp for the reconstruction purposes, such material should be sourced from an existing licensed quarry or other licensed operation, and
- b) Imported sand material should be demonstrated to be of consistent particle size to East Wolgan Swamp sand material through Particle Size Distribution analysis.

8. Reports

The following reports and data associated with the East Wolgan Remediation Project are to be provided to OEH:

- a) A detailed report on the rehabilitation activities within one month of the completion of these actions,
- b) A detailed monitoring report every six months after completion of initial restoration actions for the first three years,
- c) A detailed monitoring report each year after the third year until the expiry date on this certificate,
- d) More frequent reports may be requested by OEH depending on the success of the rehabilitation project,
- e) Centennial Coal is to report annually (unless otherwise state above) on all activities associated with the rehabilitation of East Wolgan Swamp and the associated s.95 certificate and attached conditions,
- f) All monitoring reports and raw data from monitoring points associated with East Wolgan Swamp (and associated control swamps) is to be provided directly to the OEH North West Region office in Dubbo,
- g) The above reports and data shall be provided in the following formats:
 - i. Two copies of each report shall be provided in printed hardcopy format,
 - ii. All reports shall also be provided in digital format,
 - iii. Raw monitoring data shall be provided in Microsoft excel format (or other format determined in consultation with OEH), and
 - iv. Geographic Information System (GIS) data shall be provided for all monitoring point locations within East Wolgan Swamp and associated control site swamps in either as, ESRI Shape file format or, a tabulated excel spreadsheet/s that can be imported to a GIS.
- h) All monitoring reports shall be made publically available on the Centennial Coal website for the duration of this certificate.

9. Avoiding future impacts

In order to avoid similar impacts to East Wolgan Swamp in the future, a strategy to relinquish and decommission the licensed water discharge point LDP 004 shall be developed in consultation with Environment Protection Authority and OEH for implementation as soon as possible.

10. Duration of condition implementation

Monitoring, adaptive management, and reporting of the East Wolgan Swamp rehabilitation project is to be undertaken until the expiry date of this certificate (i.e. 2024), or until otherwise determined unnecessary in consultation with OEH.

The OEH will review monitoring data and associated reports, and may extend the certificate expiry date to:

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- gather further monitoring data to help determined the long term success of the remediation,
- to allow additional remediation actions to take place, or
- for other reasons as determined by OEH.