



Your reference :
Our reference : A10270-2016, DOC16/372099
Contact : Liz Mazzer, [REDACTED]

Mr James Wearne
Group Manager Approvals
Centennial Coal
100 Miller Road
Fassifern, NSW 2283
Australia

Dear James,

**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 installation of a total of four groundwater monitoring bores and four soil moisture monitoring bores in the Newnes Plateau Shrub Swamps at Gang Gang South West Swamp and Gang Gang East Swamp, received by the Office of Environment and Heritage (OEH) on 22 July 2016.

I have considered the application and supporting information. In reviewing this information, the Office of Environment and Heritage (OEH) has found a number of inconsistencies and deficiencies in the information provided.

To assist you in future applications, we have provided our review of this licence application in Attachment A. Centennial Coal must ensure that adequate, accurate and consistent information is provided for any future section 91 applications. Failure to provide information to OEH's satisfaction in the future will likely result in processing delays.

However, in this case OEH has used information contained within a previous section 91 application (NWDU 015 authorised on 6 June 2011) to assist in our assessment.

I have considered the application, supporting information, and the information provided in NWDU 015, 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 Liz Mazzer, Conservation Planning Officer on [REDACTED] or email liz.mazzer@environment.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to be 'S. Cox'.

STEVEN COX
Senior Team Leader, Planning
North West Region

01 August 2016

Contact officer: LIZ MAZZER
[REDACTED]

cc: Paul Freeman, Department of Planning and Environment

Attachment A

OEH Review of Section 91 Licence and Supporting Information for Eight Boreholes in Gang Gang South West and Gang Gang East Newnes Plateau Shrub Swamps

Background

Centennial Coal proposes to install a total of eight hand augered boreholes for groundwater and soil moisture monitoring in Gang Gang East and Gang Gang South West swamps. This is a condition of approval for the Extraction Plan for Longwall 419.

The boreholes are to be located at the following co-ordinates:

Site	Borehole purpose	Easting	Northing
A	Shallow groundwater monitoring bore and soil moisture monitoring	240447.40	6303083.20
B	Shallow groundwater monitoring bore and soil moisture monitoring	239938.3	6301851.6
C	Shallow groundwater monitoring bore and soil moisture monitoring	240397.53	6303188.33
D	Soil moisture monitoring	239815.11	6302879.51
E	Shallow groundwater monitoring bore	239907.40	6302924.80

Deficiencies in the Information Provided with the Section 91 Application

1 Location

- While the Ecological Due Diligence survey refers to Gang Gang South West and Gang Gang East, the s91 application does not specify the names of the swamps.
- Sites A, B and C will have both groundwater and soil moisture boreholes. There is no indication of what the distance will be between two boreholes or how the boreholes will be orientated relative to each other at those sites.

2 Extent of Impact

- Sections 6 and 7 of the application indicate that no vegetation will be removed for the installation of the boreholes, and that the diameter of each borehole will be approximately 10 cm. The Ecological Due Diligence survey states that any vegetation removal will be undertaken using hand tools and will be minimal. The 2011 s91 application states that the area initially disturbed to achieve installation is approximately 0.03 m² for each piezometer, and the post installation footprint for each piezometer is approximately 0.01 m². This would indicate that the 8 boreholes would initially disturb 0.24 m². Even if no vegetation is cleared for installation, this is still an area of impact within the Endangered Ecological Community (EEC).
- The application does not take into account any potential damage to vegetation (from trampling, auger operation, etc) during installation and monitoring. This is briefly considered in the Ecological Due Diligence survey, which recommends accessing bores using designated tracks to avoid sensitive ecological and cultural issues. The Ecological Due Diligence survey also recommends that, "All workers should avoid excessive trampling of the

EEC by traversing around this vegetation community where possible and by laying-down equipment outside of the swamp margins where possible.” It is not clear how workers will be able to identify the EEC vegetation from other non-EEC vegetation.

- There are other boreholes already installed in the Gang Gang swamps. The application does not identify these, or consider cumulative impacts.
- Section 20 discusses that the installation of boreholes will avoid any vegetation clearing. Even if this is the case, the activity would still impact on the EEC, the definition of which includes soil seed banks, bulbs, corms, rhizomes, rootstocks and lignotubers. The community also includes micro-organisms, fungi and invertebrate fauna. This should be recognised in the application.
- The application does not indicate how regularly the monitoring bores will need to be visited. Will data be collected from the bores remotely, or at regular intervals (e.g. daily, weekly, monthly, etc).

3 Site Descriptions

- The canopy layer has not been described apart from (in section 12 of the application), “Generally absent in the core of the community, only sparsely present within the margins”. This should be more specific.
- Floristic data specific to each site has not been provided. As a minimum floristic data should be provided from a 2 metre radius around each proposed borehole.
- The vegetation zone is classed as being in moderate/good – medium condition in the s91 application. No evidence has been provided to support this condition assessment, and no site specific condition information is attached to the application.
- The locations of individual *Boronia deanei* observed in the vicinity of Sites D and E are shown in figure 2 of the Ecological Due Diligence survey. The location of observed *Persoonia hindii* near Site C has not been shown.
- The Ecological Due Diligence report does not provide photos of the borehole sites. While the Archaeological Due Diligence report does provide some photos, they are of poor quality. High resolution photos should be provided for each of the proposed borehole sites.

4 Inconsistent Information

- There are inconsistencies in the s91 application regarding the number of boreholes to be installed. For example, section 16 discusses the installation of soil moisture monitoring into four boreholes and water level monitoring equipment into two boreholes (totalling 6 boreholes). Section 6 specifies eight boreholes.
- There are inconsistencies in the s91 application regarding the number of sites. Section 17 refers to six sites, while section 5 lists five sites (A to E).
- Section 18 states there are no threatened species located at the proposed sites. This does not refer to the Ecological Due Diligence survey, which located two threatened flora species in the vicinity of Sites C, D and E.

Previous s91 Licence Application (2011)

The 2011 application was supported by an ecological report which outlined the installation process and provided detail (including site photos) of each site. This report found that potential impacts include:

- The loss of small areas of groundcover (approximately 0.01 m²);
- A small area of soil disturbance which is unlikely to lead to erosion due to the minimal slope and high level of retained groundcover; and
- The possible creation, over time, of walking tracks to the piezometers which may develop as a result of the data loggers being checked once every two months.

The ecological report also made a number of recommendations to mitigate potential impacts. While recommendations are also made in the current Ecological Due Diligence survey, these are not as thorough as those from the 2011 ecological report.

OEH considers that, at a minimum, section 91 applications for activities in Newnes Plateau Shrub Swamps should be supported with site specific ecological information, such as that provided with the 2011 application NWDU 015.

Section 95(2) Certificate

Threatened Species Conservation Act 1995



Office of
Environment
& Heritage

Issued To:

Mr James Wearne
Group Manager Approvals
Springvale Mine
PO Box 1000
Toronto, NSW 2283
Australia

Certificate no. : C0002065
Issue Date: 01 August 2016
Expiry date: 31 August 2021

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. The installation and operation of a total of eight hand augered boreholes at five sites within Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion Endangered Ecological Community (NPSS EEC) for monitoring of shallow groundwater and soil moisture. The bores will be installed in Gang Gang East and Gang Gang South West swamps at the following locations:

Site	Borehole purpose	Easting	Northing
A	Shallow groundwater monitoring bore and soil moisture monitoring	240447.40	6303083.20
B	Shallow groundwater monitoring bore and soil moisture monitoring	239938.30	6301851.60
C	Shallow groundwater monitoring bore and soil moisture monitoring	240397.53	6303188.33
D	Soil moisture monitoring	239815.11	6302879.51
E	Shallow groundwater monitoring bore	239907.40	6302924.80

Section 95(2) Certificate

Threatened Species Conservation Act 1995



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RELEVANT CONDITIONS

The holder of the certificate must ensure that:

1. All raw data from the groundwater and soil moisture monitoring bores will be emailed to OEH's North West Planning Senior Team Leader on a quarterly basis (three-monthly) in Excel spreadsheet format.
2. Access to the bores during installation and ongoing monitoring should be restricted to established tracks wherever possible. Access must avoid impacts on identified sensitive ecological and cultural features.
3. Boreholes are to be placed away from permanently pooled, flowing, and or open water within the NPSS EEC to avoid direct impacts on the habitat of the Blue Mountains Water Skink.
4. If vegetation is required to be removed to establish a borehole site, only the absolute minimum should be removed using hand tools, and plants should be trimmed only (not entire plants removed). If removal of entire plants is required, consideration should be given to moving the site. Even if individual plants are not listed as threatened, they still form part of the listed EEC.
5. Borehole sites are to be inspected by a botanist prior to installation. No threatened flora species are to be removed and if any new individuals are detected they should be clearly flagged and avoided. Boreholes are to be placed greater than three meters from threatened plant species, within the Newnes Plateau Shrub Swamp Endangered Ecological Community to avoid direct impacts on these species.
6. Disturbance to potential fauna habitat should be avoided, and removal of ground and shrub species minimised. Fallen timber is not to be removed from the sites. Bores must be located to avoid disturbance of such habitat.
7. Do not remove fallen timber from the Endangered Ecological Community to make access to the site easier, or assist establishment of access tracks. In order to prevent trails from forming and damage occurring to the Endangered Ecological Community, no more than two persons are to walk into the Endangered Ecological Community to collect data from the monitoring bores.
8. All workers are to avoid excessive trampling of the Endangered Ecological Community by traversing around this community where possible and by laying-down equipment outside the swamp margins where possible.
9. Implement appropriate environmental hygiene protocols to avoid exotic seed, and or pathogens from contaminating the Endangered Ecological Community. For example, clean footwear with tough bristled brush to remove foreign seeds; spray footwear with water/metho mix to kill pathogens (e.g. *Phytophthora cinnamomi*); ensure clothing is free of burrs and other seed before approaching the Endangered Ecological Community.

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STEVEN COX
Senior Team Leader, Planning
North West Region

Section 95(2) Certificate

Threatened Species Conservation Act 1995



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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.