



Section 91 Licence

Application under the *Threatened Species Conservation Act 1995* to harm or pick a threatened species, population or ecological community* or damage habitat.

1. Applicant's name ^: <i>(if additional persons require authorisation by this licence, please attach details of names and addresses)</i>	Springvale Coal Pty Limited	
2. Australian Business Number (ABN):	39 052 096 769	
3. Organisation name and position of applicant ^: <i>(if applicable)</i>	James Wearne Group Approvals Manager Springvale Mine	
4. Postal address ^:	PO Box 1000 Toronto NSW 2283	Telephone ^: B.H. [REDACTED] A.H. [REDACTED]
5. Location of the action <i>(including grid reference and local government area and delineated on a map).</i>	All sites will be installed within the Newnes Plateau Shrub Swamps located within the Lithgow Local Government Area. Coordinates for each of the sites is provided below and shown in Attachment 1. Site A (shallow groundwater monitoring bore and soil moisture monitoring) 240447.40 6303083.20 Site B (shallow groundwater monitoring bore and soil moisture	

* A threatened species, population or ecological community means a species, population or ecological community identified in Schedule 1, 1A or Schedule 2 of the *Threatened Species Conservation Act 1995*.

^The personal details of all Section 91 licences will be displayed in the register of Section 91 licences required under Section 104 of the *Threatened Species Conservation Act 1995*. See notes.

	<p>monitoring)</p> <p>239938.3 6301851.6</p> <p>Site C (shallow groundwater monitoring bore and soil moisture monitoring)</p> <p>240397.53 6303188.33</p> <p>Site D (soil moisture monitoring)</p> <p>239815.11 6302879.51</p> <p>Site E (shallow groundwater monitoring bore)</p> <p>239907.40 6302924.80</p>
<p>6. Full description of the action and its purpose (e.g. <i>environmental assessment, development, etc.</i>)</p>	<p>A total of eight hand augured boreholes will be installed within the Endangered Ecological Community of the Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion.</p> <p>Four boreholes will be hand augured to the depth of refusal for hand auguring (approximately 1.5-2.5 metres) to allow the installation of soil moisture probes to monitor for potential changes to shrub swamp soil moisture levels as a result of underground mining activities associated with the Springvale Mine. Soil moisture probes will be installed within each borehole at 20cm vertical intervals.</p> <p>An additional four boreholes will be hand augured to the depth of refusal for hand auguring (approximately 1.5-2.5 metres) to install groundwater monitoring bores and automatic groundwater level monitoring probes to monitor for changes in shallow groundwater levels as a result of underground mining activities.</p> <p>The requirement to install soil moisture monitoring and additional water level monitoring bores within the Newnes Plateau Shrub Swamps is a condition of approval for the Springvale Mine Extraction Plan for longwall 419.</p> <p>No vegetation will be removed for the installation of the boreholes.</p>
<p>7. Details of the area to be affected by the action (<i>in hectares</i>).</p>	<p>The installation of groundwater monitoring bores to monitoring shallow groundwater levels and soil moisture content will be hand augured and undertaken so as to avoid any vegetation clearing and will create minimal disturbance.</p>

	<p>Access to each site will be via existing access tracks and foot. No vehicle access into the Newnes Plateau Shrub Swamp EEC will be undertaken.</p> <p>The diameter of each borehole will be approximately 10cm.</p> <p>The total area to be affected will be 0 hectares.</p>			
<p>8. Duration and timing of the action (<i>including staging, if any</i>).</p>	<p>The construction of boreholes and the installation of soil moisture and water level monitoring equipment into the boreholes is to be completed by 11 August 2016 to ensure compliance with the Department of Planning and Environment conditions of approval for the Springvale Mine Longwall 419 Extraction Plan.</p> <p>Soil moisture levels will be logged on a daily basis with data downloaded monthly for a period of approximately 5 years.</p> <p>Water levels will be logged on a daily basis with data downloaded monthly for a period of approximately 5 years.</p>			
<p>9. Is the action to occur on land declared as critical habitat*? (<i>tick appropriate box</i>)</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>			
<p>10. Threatened species, populations or ecological communities to be harmed or picked.</p>	<p><u>Scientific name</u></p> <p>Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion.</p>	<p><u>Common name</u></p> <p>Newnes Plateau Shrub Swamp in the Sydney Basin Bioregion.</p>	<p><u>Conservation status</u></p> <p>Endangered Ecological Community in Part 3 of Schedule 1 of the TSC Act. This vegetation community also corresponds to a component of the federally listed (EPBC Act) EEC known as Temperate Highland Peat Swamps on Sandstone.</p>	<p><u>Details of number of individual animals, or proportion and type of plant material</u></p>
<p>* Critical habitat means habitat declared as critical habitat under Part 3 of the <i>Threatened Species Conservation Act 1995</i>.</p>				

--	--	--	--	--

<p>11. Species impact: <i>(please tick appropriate box)</i></p> <p>a) For action proposed on land declared as critical habitat</p> <p>or</p> <p>b) For action proposed on land <u>not</u> declared as critical habitat.</p>	<p>a species impact statement (SIS) is attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Items 12 to 25 have been addressed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
---	--

N.B: Provision of a species impact statement is a statutory requirement of a licence application if the action is proposed on critical habitat. The provision of information addressing items 12 to 17 is a statutory requirement of a licence application if the action proposed is **not** on land that is critical habitat. Information addressing any of the questions below must be attached to the application.

<p>12. Describe the type and condition of habitats in and adjacent to the land to be affected by the action.</p>	<p>This vegetation community forms a dense wet heath with an unevenly textured tussock / hummock grassy sedge understorey.</p> <p>Canopy Layer: Generally absent in the core of the community, only sparsely present within the margins.</p> <p>Shrub Layer: Dominant shrub species included: <i>Leptospermum grandifolium</i> (Woolly Tea Tree), <i>Baeckea linifolia</i> (Weeping Baeckea), <i>Grevillea acanthifolia</i> (Bog Grevillea), <i>Epacris paludosa</i> (Swamp Epacris), <i>Banksia spinulosa</i> var. <i>spinulosa</i> (Hairpin Banksia), <i>Leptospermum polygalifolium</i> subsp. <i>polygalifolium</i> (Tantoon), <i>Banksia marginata</i> (Silver Banksia), <i>Callistemon sieberi</i> (River Bottlebrush), <i>Epacris calvertiana</i> and <i>Leptospermum obovatum</i>.</p> <p>Ground Layer: Dominant species included: <i>Gleichenia dicarpa</i> (Pouched Coral Fern), <i>Empodisma minus</i>, <i>Baloskion australe</i>, <i>Viola silicestris</i> (Sandstone Violet), <i>Lepidosperma limicola</i> (Razor Sedge), <i>Xyuris ustulata</i> (Yellow Flag), <i>Pimelea linifolia</i> (Slender Rice Flower), <i>Epacris microphylla</i> (Coral Heath), <i>Epacris paludosa</i> (Swamp Epacris), <i>Schoenus moorei</i>, <i>Gahnia sieberiana</i> (Red-fruited Saw-sedge) and <i>Gymnoschoenus sphaerocephalus</i> (Button Grass).</p>
--	--

	The vegetation zone is classed as being in moderate/good – medium condition.
13. Provide details of any known records of a threatened species in the same or similar known habitats in the locality (<i>include reference sources</i>).	<p>Three threatened flora species have been observed within the locality of the action proposed, namely <i>Boronia deanei</i> (listed as Vulnerable under both the TSC Act and EPBC Act); <i>Persoonia hindii</i> (listed as Endangered under the TSC Act); and <i>Veronica blakelyi</i> (listed as Vulnerable under the TSC Act). (RPS 2014)</p> <p>Four threatened woodland birds have been recorded in the locality during surveys, namely Gang-Gang Cockatoo (<i>Callocephalon fimbriatum</i>), Little Lorikeet (<i>Glossopsitta pusilla</i>), Scarlet Robin (<i>Petroica boodang</i>) and Flame Robin (<i>Petroica pheonicea</i>). Nocturnal surveys have identified the presence of the Masked Owl (<i>Tyto novaehollandiae</i>) and Sooty Owl (<i>Tyto tenebricosa</i>). Three threatened microchiropteran bat species were recorded during surveys, namely Yellow-bellied Sheathtail Bat (<i>Saccolaimus flaviventris</i>), Large-eared Pied Bat (<i>Chalinolobus dwyeri</i>) and Eastern Bentwing Bat (<i>Miniopterus schreibersii</i> subsp. <i>oceanensis</i>) (RPS 2014).</p> <p>(See Attachment 2)</p>
14. Provide details of any known or potential habitat for a threatened species on the land to be affected by the action (<i>include reference sources</i>).	<p>The enhanced protection from predators offered by the dense vegetation of shrub swamps provides habitat for small mammals and birds, including more reserved species to forage in the dense shrubs and undergrowth. The shrub swamps provide habitat for specialist threatened fauna species, including the Giant Dragonfly (<i>Petalura gigantea</i>) and Blue Mountains Water Skink (<i>Eulamprus leuraensis</i>). The swamps and various creek lines also provide habitat for the Giant Burrowing Frog (<i>Heleioporus australiacus</i>) and Stuttering Frog (<i>Mixophyes balbus</i>) (RPS 2014).</p> <p>(See Attachment 3)</p>
15. Provide details of the amount of such habitat to be affected by the action proposed in relation to the known distribution of the species and its habitat in the locality.	<p>The installation of soil moisture monitoring equipment into four hand augured boreholes and the installation of water level monitoring equipment into two hand augured boreholes will be undertaken so as to avoid any vegetation clearing and will create minimal disturbance.</p> <p>Access to each site will be via existing access tracks and foot. No vehicle access into the Newnes Plateau Shrub Swamp EEC will be undertaken.</p> <p>The diameter of each borehole will be approximately 10cm.</p> <p>The total area to be affected will be 0 hectares.</p> <p>There is approximately 213 hectares of Shrub Swamps located across the Newnes State Forest area (See Attachment 4).</p>
16. Provide an assessment	The installation of soil moisture monitoring equipment into four hand

<p>of the likely nature and intensity of the effect of the action on the lifecycle and habitat of the species.</p>	<p>augured boreholes and the installation of water level monitoring equipment into two hand augured boreholes will be undertaken so as to avoid any vegetation clearing and will create minimal disturbance.</p> <p>Access to each site will be via existing access tracks and foot. No vehicle access into the Newnes Plateau Shrub Swamp EEC will be undertaken.</p> <p>The impact of the proposed activity is considered to be of low intensity.</p> <p>It is considered the proposed activity is unlikely to impact on the lifecycle or habitat of any threatened species, populations or ecological communities.</p>
<p>17. Provide details of possible measures to avoid or ameliorate the effect of the action.</p>	<p>The six proposed sites will be accessed on foot only, no vehicular access will be permitted to minimise the impact on the EECs present. The soil moisture and water level monitoring is being installed as a requirement from the NSW Department of Planning and Environment to monitor the potential changes on soil moisture and shallow groundwater levels in these shrub swamps as a result of mining activities.</p>
<p>N.B: The Chief Executive must determine whether the action proposed is likely to significantly affect threatened species, populations or ecological communities, or their habitats. To enable this assessment the Applicant is required to address items 18 to 24. Any additional information referred to in addressing these items must be attached to the application.</p>	
<p>18. In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.</p>	<p>The installation of soil moisture monitoring equipment into four hand augured boreholes and the installation of water level monitoring equipment into four hand augured boreholes will be undertaken so as to avoid any vegetation clearing and will create minimal disturbance.</p> <p>Access to each site will be via existing access tracks and foot. No vehicle access into the Newnes Plateau Shrub Swamp EEC will be undertaken.</p> <p>The impact of the proposed activity is considered to be of low intensity.</p> <p>There are no threatened species located at the sites of the proposed activity, therefore it is considered the proposed activity is unlikely to impact the lifecycle of any threatened species nor place any threatened species at risk of extinction.</p>
<p>19. In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population</p>	<p>The installation of soil moisture monitoring equipment into four hand augured boreholes and the installation of water level monitoring equipment into four hand augured boreholes will be undertaken so as to avoid any vegetation clearing and will create minimal disturbance.</p> <p>Access to each site will be via existing access tracks and foot. No vehicle access into the Newnes Plateau Shrub Swamp EEC will be undertaken.</p>

<p>of the species is likely to be placed at risk of extinction.</p>	<p>The impact of the proposed activity is considered to be of low intensity.</p> <p>There are no endangered populations located at the sites of the proposed activity, therefore it is considered the proposed activity is unlikely to impact the lifecycle of any threatened species nor place any threatened species at risk of extinction.</p>
<p>20. In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:</p> <p>(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or</p> <p>(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.</p>	<p>The installation of soil moisture monitoring equipment into four hand augured boreholes and the installation of water level monitoring equipment into four hand augured boreholes will be undertaken so as to avoid any vegetation clearing and will create minimal disturbance.</p> <p>Access to each site will be via existing access tracks and foot. No vehicle access into the Newnes Plateau Shrub Swamp EEC will be undertaken.</p> <p>The impact of the proposed activity is considered to be of low intensity.</p> <p>As such, it is considered unlikely the proposed activity will have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction and unlikely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.</p>
<p>21. In relation to the habitat of a threatened species, population or ecological community:</p> <p>(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and</p> <p>(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and</p> <p>(iii) the importance of the habitat to be removed, modified, fragmented or isolated</p>	<p>The installation of soil moisture monitoring equipment into four hand augured boreholes and the installation of water level monitoring equipment into four hand augured boreholes will be undertaken so as to avoid any vegetation clearing and will create minimal disturbance.</p> <p>Access to each site will be via existing access tracks and foot. No vehicle access into the Newnes Plateau Shrub Swamp EEC will be undertaken.</p> <p>The impact of the proposed activity is considered to be of low intensity.</p> <p>As such,</p> <p>(i) no vegetation clearing is required and disturbance will be minimal. It is not anticipated that the habitat will be impacted or modified</p> <p>(ii) no habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action.</p> <p>(iii) the habitat of the Newnes Plateau Shrub Swamps are considered to be important. The proposed activities will not remove, modify, fragment or</p>

<p>to the long-term survival of the species, population or ecological community in the locality.</p>	<p>isolate the Endangered Ecological Community in the short or long term.</p>
<p>22. Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly).</p>	<p>The installation of soil moisture monitoring equipment into four hand augured boreholes and the installation of water level monitoring equipment into four hand augured boreholes will be undertaken so as to avoid any vegetation clearing and will create minimal disturbance.</p> <p>Access to each site will be via existing access tracks and foot. No vehicle access into the Newnes Plateau Shrub Swamp EEC will be undertaken.</p> <p>The impact of the proposed activity is considered to be of low intensity.</p> <p>As such, the proposed activity is unlikely to have an adverse effect on critical habitat either directly or indirectly.</p>
<p>23. Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan.</p>	<p>The monitoring proposed to be undertaken will provide for an improvement in understanding of the importance of soil moisture on swamps health, impacts variability of soil moisture have on swamp health and the impact from underground mining activities on soil moisture levels and shallow groundwater levels within swamps. This information can be used to assist in protecting and conserving these swamps into the future.</p>
<p>24. Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.</p>	<p>The installation of soil moisture monitoring equipment into four hand augured boreholes and the installation of water level monitoring equipment into four hand augured boreholes within the Newnes Plateau Shrub Swamps will involve minimal clearing and minimal disturbance to the ecosystem. It is not considered likely to contribute to any activity that is recognised as a threatening process.</p>

Important information for the applicant

Processing times and fees

The *Threatened Species Conservation Act 1995* provides that the Chief Executive must make a decision on the licence application within 120 days where a species impact statement (SIS) has been received. No timeframes have been set for those applications which do not require a SIS. The Chief Executive will assess your application as soon as possible. You can assist this process by providing clear and concise information in your application.

Applicants may be charged a processing fee. The Chief Executive is required to advise prospective applicants of the maximum fee payable before the licence application is lodged. Therefore, prospective applicants should contact the Office of Environment and Heritage (OEH) prior to submitting a licence application.

A \$30 licence application fee must accompany a licence application.

Protected fauna and protected native plants*

Licensing provisions for protected fauna and protected native plants are contained within the *National Parks and Wildlife Act 1974*. However, a Section 91 Licence may be extended to include protected fauna and protected native plants when these will be affected by the action.

If you are applying for a licence to cover both threatened and protected species please provide the information requested in Item 10 *as well as* a list of protected species and details of the number of individuals animals or proportion and type of plant material which are likely to be harmed or picked.

Request for additional information

The Chief Executive may, after receiving the application, request additional information necessary for the determination of the licence application.

Species impact statement

Where the application is not accompanied by a species impact statement (SIS), the Chief Executive may decide, following an initial assessment of your application, that the action proposed is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats. In such cases, the *Threatened Species Conservation Act 1995* requires that the applicant submit a SIS. Following initial review of the application, the Chief Executive will advise the applicant of the need to prepare a SIS.

Chief Executive's requirements for a species impact statement

Prior to the preparation of a SIS, a request for Chief Executive's requirements must be forwarded to the relevant OEH Office. The SIS must be prepared in accordance with section 109 and 110 of the TSC Act and must comply with any requirements notified by the Chief Executive of Office of Environment and Heritage (OEH).

Disclosure of Personal Information in the Public Register of s91 Licences

The Public Register provides a list of licence applications and licences granted. A person about whom personal information is contained in a public register may request that the information is removed or not placed on the register as publicly available.

Copies of all applications and licences issued under section 91 and certificates issued under section 95 of the Act are available on the OEH website at [Public register of section 91 applications, licences and certificates](#) or in hardcopy form from The Librarian, Office of Environment and Heritage, 59 Goulburn St, Sydney.

Certificates

If the Chief Executive decides, following an assessment of your application, that the proposed action is not likely to significantly affect threatened species, populations or ecological communities, or their habitats, a Section 91 Licence is not required and the Chief Executive must, as soon as practicable after making the determination, issue the applicant with a certificate to that effect.

N.B: An action that is not required to be licensed under the *Threatened Species Conservation Act 1995*, may require licensing under the *National Parks and Wildlife Act 1974*, if it is likely to affect protected fauna or protected native plants.

* Protected fauna means fauna of a species not named in Schedule 11 of the *National Parks and Wildlife Act 1974*.

Protected native plant means a native plant of a species named in Schedule 13 of the *National Parks and Wildlife Service 1974*.

I confirm that the information contained in this application is correct. I hereby apply for a licence under the provisions of Section 91 of the *Threatened Species Conservation Act 1995*.

Applicant's name
(Please print)

James Wearne

Applicant's position and
organisation (if relevant)
(Please print)

Group Approvals Manager – Centennial Coal

Applicant's signature



Date

22 / 7 / 16

For more information or to lodge this form, contact the nearest branch of OEH's Regional Operations Group:

Greater Sydney

PO Box 644
Parramatta NSW 2124
Phone: 02 9995 5000

Hunter and Central Coast

PO Box 1002
Dangar NSW 2309
Phone: 02 6651 5946

Illawarra

PO Box 513
Wollongong NSW 2500
Phone: 02 4224 4150

North east

24 Moonee Street
Coffs Harbour NSW 2450
Phone: 02 6651 5946

North west

PO Box 2111
Dubbo NSW 2830
Phone: 02 6883 5300

South east

PO Box 733
Queanbeyan NSW 2620
Phone: 02 6229 7188

South west

PO Box 544
Albury NSW 2640
Phone: 02 6022 0600

Office of Environment and Heritage (NSW)
PO Box A290, Sydney South NSW 1232
Phone: 131 555 (Environment Line) Fax: 9995 5999
Email: info@environment.nsw.gov.au

April 2016
OEH 2016/0239