



Environmental Management Strategy

Springvale Mine

January 2024

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1 BACKGROUND

1.1 Introduction

Springvale Mine (Springvale) is an existing underground coal mine producing thermal coal which is supplied to both domestic and international markets. It is located 15 kilometres (km) to the northwest of the regional city of Lithgow and 120 km west-north-west of Sydney in New South Wales (NSW). Springvale is bordered by Angus Place to the north and Clarence Colliery to the south-east. The regional locality of Springvale is shown on **Figure 1**. Springvale utilise the longwall mining method to extract coal from the Lithgow Seam.

Underground coal mining commenced at Springvale in 1995 following the granting of Springvale's Development Consent (DA 11/92) on 27 July 1992 by the then Minister for Planning, pursuant to Section 101 under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). DA 11/92 and its subsequent modifications authorised the extraction of up to 4.5 million tonnes per annum (Mtpa) of run of mine (ROM) coal.

On 21 September 2015 Development Consent SSD-5594 was approved by the Planning Assessment **Commission (under delegation from the Minister of Planning) pursuant to Part 4, Division 4.1 of the EP&A Act**. This consent replaces the former Development Consent DA 11/92 which is required to be surrendered in accordance with Schedule 2, Condition 10 of SSD-5594. Modifications 1 and 2 to SSD-5594 were subsequently approved in 2017 by the Planning Assessment Commission (PAC), under delegation from the Minister. The approval of SSD-5594 (including Mods 1, 2, 3 and 4) allows Springvale to continue underground coal mining operations within the Lithgow Seam at rates up to 5.5 Mtpa until 31 December 2028, with subsequent rehabilitation and closure works.

This Environmental Management Strategy (herein referred to as the Strategy) was developed in accordance with Schedule 6, Condition 1 of SSD-5594. The Strategy has been developed to adhere to Centennial Coal's Environment and Community Policy by promoting environmental awareness, integrating environmental management into business, and through identifying and minimising the environmental impacts of operations. Springvale accepts and has adopted the Centennial Coal Environment and Community Policy which has been endorsed by the Centennial Coal Board of Directors. Springvale staff recognise the objectives of the Centennial Coal Environment and Community Policy and aim to achieve the environmental goals.

This Strategy applies to all employees and contractors associated with the operations at Springvale. Service providers and suppliers may operate under their own Environmental Management Strategy.

1.2 Project Description

Springvale currently has approval to continue underground coal mining operations within the Lithgow Seam at rates up to 5.5 million tonnes per annum (Mtpa) until 31 December 2028. Springvale comprises an underground longwall mine, the pit top and supporting infrastructure on Newnes Plateau within the Gardens of Stone State Conservation Area (former Newnes State Forest). The site layout is shown on **Figure 2**.

In summary the project includes:

- Continued longwall mining operations to extract up to 5.5 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal from the Lithgow Seam;
- Continued operation of the mine's pit top area, support facilities and utilities;
- Extension and continued use of the Springvale Delta Water Transfer Scheme, bore dewatering facilities and ventilation infrastructure;
- Continued processing (sizing and screening) of ROM coal at the pit top area;
- Continued stockpiling of ROM coal (200,000 tonnes (t) capacity);
- Continued transportation of processed coal by overland conveyor to Centennial's Western Coal Services site (WCSS) for further processing or to the Mt Piper Power Station;
- Continued transportation of processed coal by road haulage to other local domestic customers (limited to 50,000 tpa); and
- Rehabilitation of the pit top area and Newnes Plateau surface infrastructure sites.

Springvale will also continue to carry out exploration works under Exploration Licence (EL) 6974 and Authorisation (AUTH) 460, which is necessary for obtaining geological information such as coal seam quality and thickness. This data is then used by Springvale for ongoing revision and refinement of the existing geological model. This enables Springvale to undertake detailed mine planning. The exploration programme also allows the installation of piezometers in the aquifers of interest for ongoing groundwater monitoring.

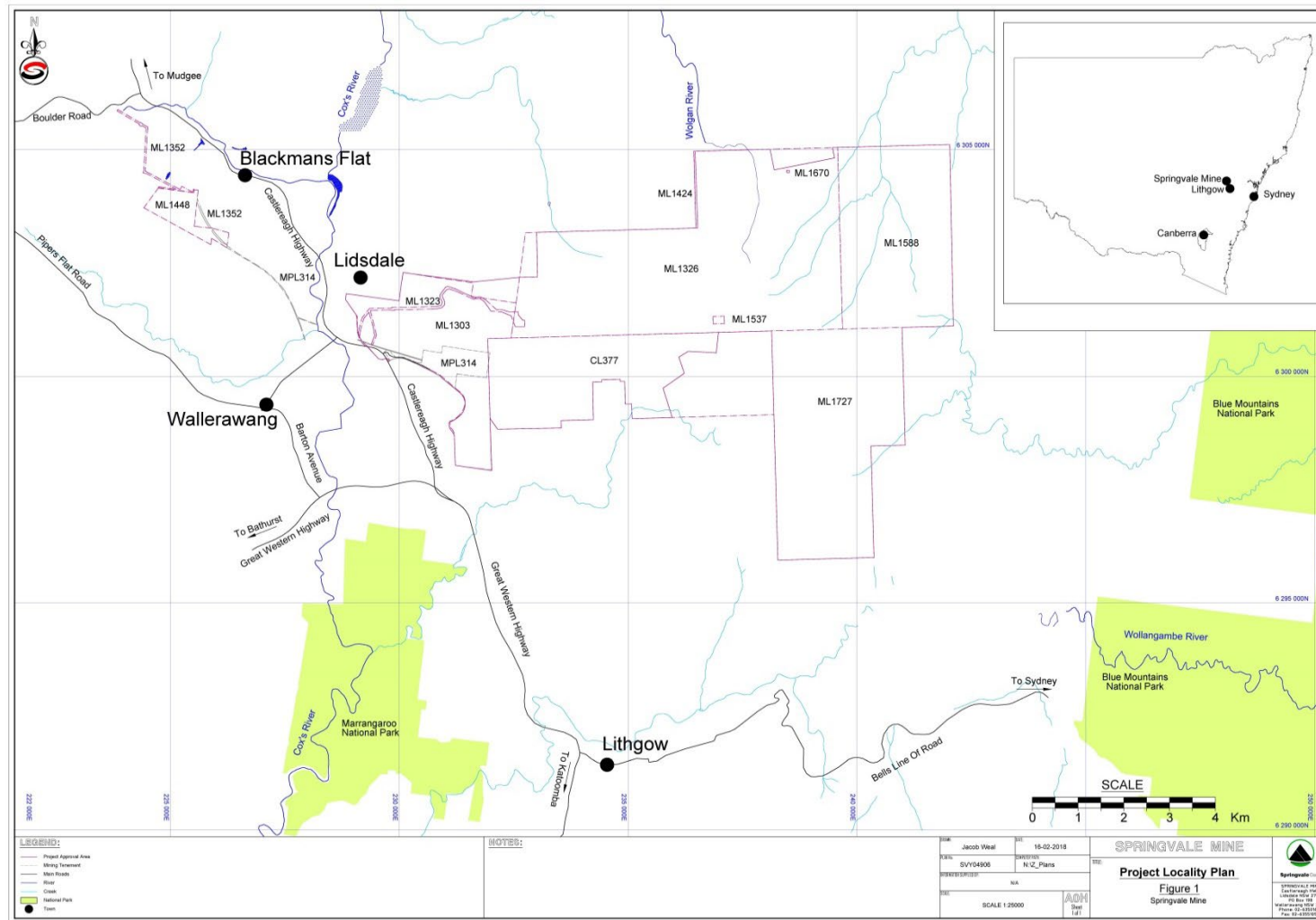


Figure 1 Site Locality

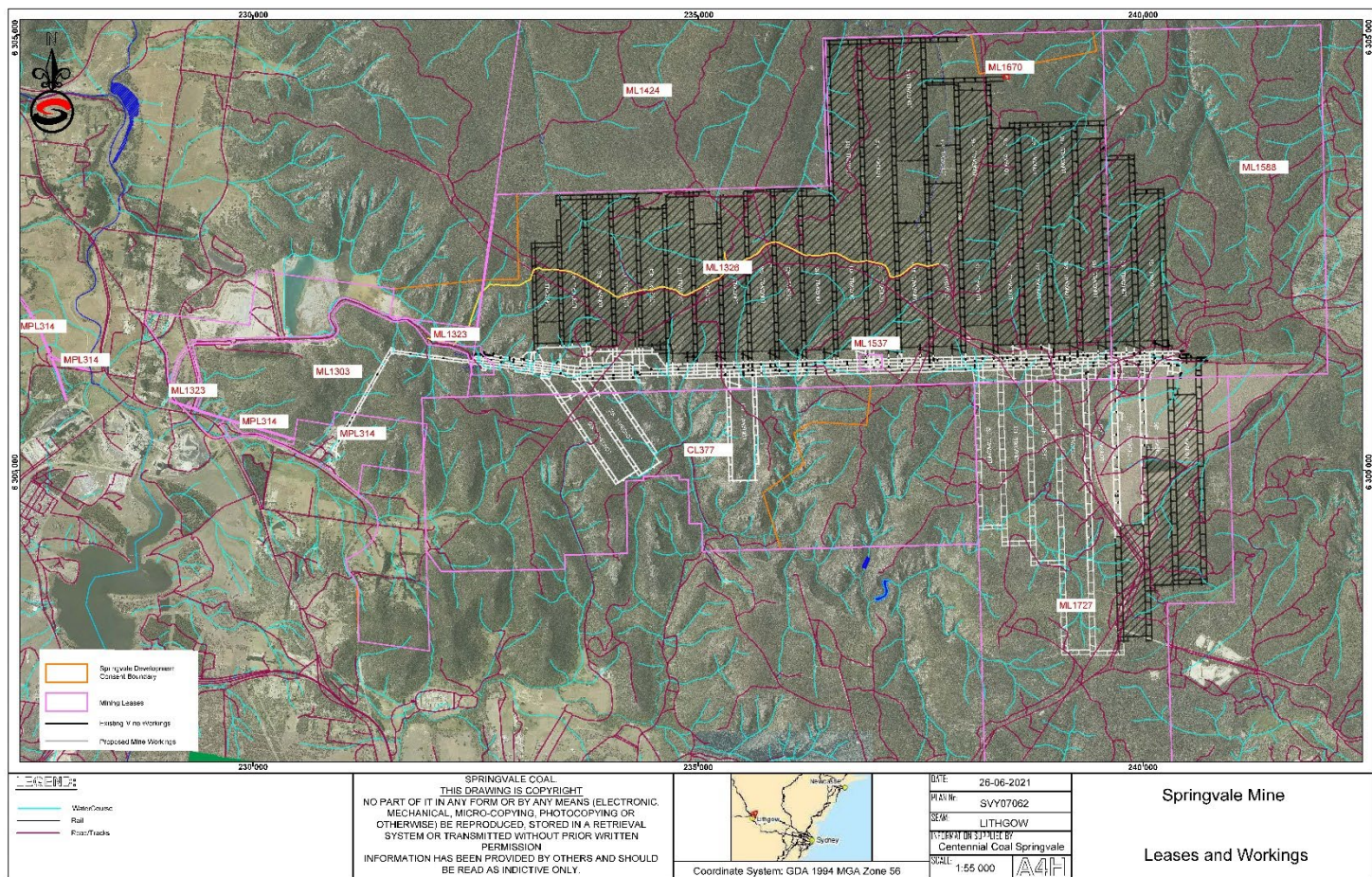


Figure 2 Site Layout

1.3 Purpose and Objectives

The purpose of this Strategy is to provide an effective management framework to identify and control potential environmental impacts to achieve compliance with environmental legislation and regulatory requirements applicable to Springvale.

This Strategy has been developed to satisfy the requirements of Schedule 6, Condition 1 of SSD-5594.

Specific objectives of this document are to:

- Provide a clear description of responsibilities and requirements pertaining to environmental management at Springvale, to enhance the understanding of all employees and contractors;
- Minimise environmental and community impacts by identifying and mitigating risks;
- Provide ways to continually monitor compliance with regulatory and legislative requirements;
- Provide processes for adequate and effective communication regarding environmental planning and management;
- Encourage continual improvement of performance regarding the environment and community;
- Provide direction and resources for environmental management;
- Provide direction to relevant environmental training programs for employees;
- Develop and maintain good relations with the community and stakeholders;
- Reduce the risk of incidents and complaints;
- Comply with the Centennial Coal Corporate Environmental Management System (EMS); and
- Comply with the relevant approval requirements, guidelines, standards and legislative requirements applicable to the Springvale EMS.

1.4 Environmental Management Strategy Context

The Springvale EMS incorporates four components (refer **Figure 3**):

- Environmental Management Strategy Document;
- Environment and Community Management Standards;
- Environmental Management Plans; and
- Environmental Management and Community Procedures.

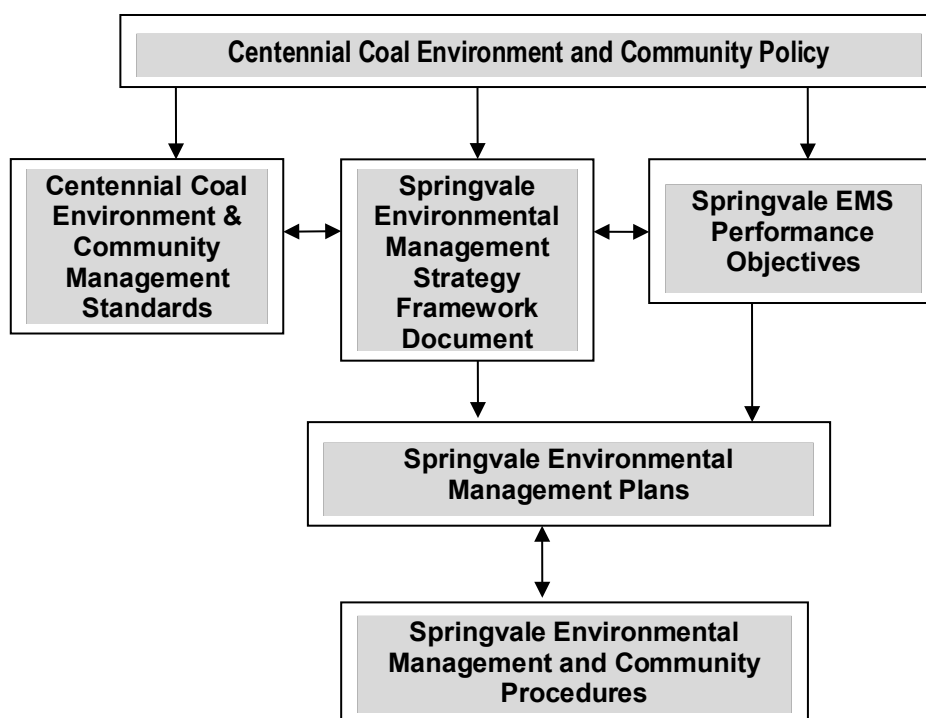


Figure 3 EMS Framework

1.4.1 Environment and Community Management Standards

Centennial Coal has developed and implemented environmental and community standards which are applicable to Springvale's operations.

1.4.2 Environmental Management Plans

Springvale has developed Environmental Management Plans to facilitate meeting the objectives set in this Strategy and to achieve compliance with relevant approvals/licences including SSD-5594, DA 11/92, EPBC 2011/5949, EPBC 2013/6881, EPL 3607 and Extraction Plans (as per SSD-5594, Schedule 3, Condition 10).

The approved management plans which contain monitoring requirements and/or management standards relevant to Springvale are presented in **Figure 4** below.

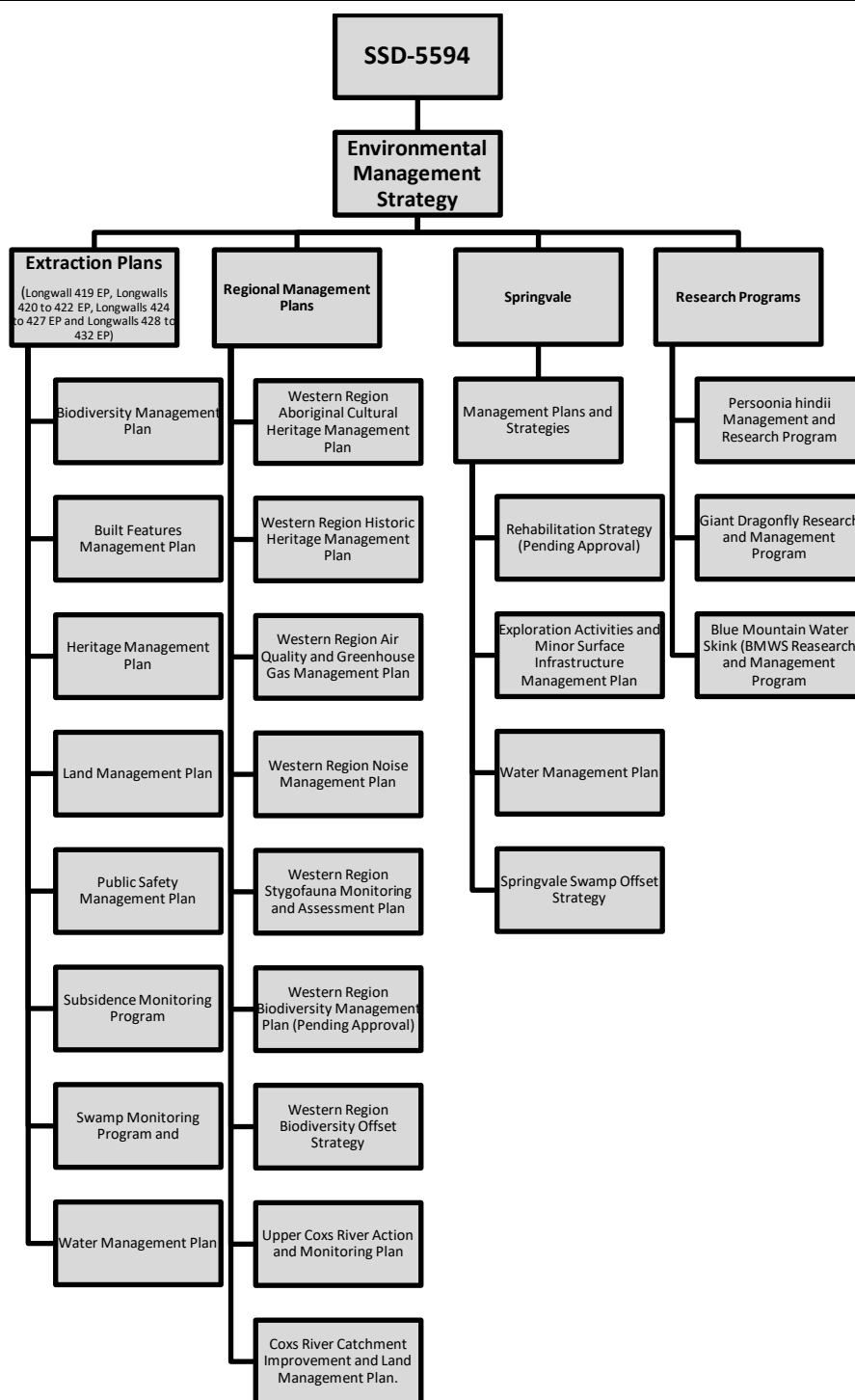


Figure 4 Environmental Management Plans Schematic

In addition to the Management Plans outlined in **Figure 4**, Springvale operate under a Rehabilitation Management Plan (RMP) that has been prepared in accordance with the Mining Exploration and Geoscience – Resources Regulator’s (RR) Form and Way: Rehabilitation Management Plan for Large Mines (RR, 2021) and associated guidelines.

Springvale also operate under site prepared strategies, plans and programs that describe how compliance standards will be met. These documents provide framework for achieving and auditing compliance standards on-site. These include, but are not limited to:

- Bushfire Management Plan;
- Stakeholder Engagement Plan;

- Community Complaint or Request for Information Procedure;
- Air Quality Management Standard;
- Noise Management Standard;
- Erosion and Sediment Control Procedure;
- Hydrocarbon/Chemical Management Procedure;
- Surface Buildings and Structure Visual Appearance Standard;
- Waste Management Standard; and
- Land Disturbance Permit.

1.4.3 Environmental Management and Community Procedures

The Springvale Procedures have been developed to ensure that effective environmental and community procedures are implemented and adhered to by personnel conducting activities at the mine site. Springvale operates a 24/7 community complaints and information line. A community complaints register is maintained and published on the Centennial Springvale website as required under SSD-5594.

The following site documents are in place to effectively communicate or respond to any community complaint/issue.

- Community Complaints or Request for Information Procedure;
- Complaint or Inquiry Form;
- Incident Form (Community);
- Subsidence Community Consultation Process;
- Stakeholder Engagement Plan; and
- Community Consultation Strategies (developed specifically for exploration programs).

Community engagement is also undertaken through the Western Region Community Consultative Committee, established to monitor the operations and provide a forum whereby the community can communicate with the mine operators and be kept up to date with the progress of the mine. Minutes from the meetings are published on the Centennial Springvale website.

1.4.4 Environmental Risk Assessment

Springvale identify environmental and community risks and controls for the operations through a Broad Brush Risk Assessment (BBRA) process which are undertaken annually. The assessment is contained with the site document Environmental Risk Register. A risk assessment register is maintained at Springvale.

1.5 Environment and Community Policy

Inherent in the design, operation and management of all Centennial Coal operations is the goal of achieving viable mines, while maintaining the highest level of environmental performance. Centennial Coal's Environment and Community Policy objectives are achieved by:

- Ongoing implementation of an EMS that integrates environmental management into the business;
- Complying with all statutory requirements as a minimum;
- Recognising stakeholders and maintaining an effective working relationship;
- Ensuring that all employees and contractors are aware of their environmental responsibilities and receive the necessary training;
- Measuring, auditing, reporting environmental performance and implementing improvement actions where needed; and
- Using resources efficiently and minimising waste.

The policy is communicated to all employees working for or on behalf of the organisation through staff and contractor inductions; and is displayed in the buildings that Springvale operates from. It is also available on the organisation's intranet.

In addition, the policy is made available to the public on the Centennial Coal website at: www.centennialcoal.com.au.

Springvale accepts and has adopted the Centennial Coal Environment and Community Policy, which sets out the Company aims and values applicable to all employees and contractors. The Springvale Mine Manager, staff and personnel accept and are committed to implementing this Strategy to assist in meeting the Policy objectives. The Policy underpins the Springvale Environmental Management Plans.

The Environment and Community Policy has been endorsed by the Centennial Coal Board of Directors and the Mine Manager.

1.6 Approvals and Licensing Requirements

Springvale expects that activities at its operations are conducted in accordance with relevant legislation and the requirements of statutory authorities. Legislative and regulatory requirements are generally recognised through the imposition of conditions on the development consent, licences or mining approvals.

Springvale's operations will be conducted in accordance with applicable State and Commonwealth environmental, planning, and natural resource legislation. Centennial Coal will maintain a register of relevant environmental legislative and regulatory requirements which will be reviewed and maintained.

1.6.1 Development Consents

Springvale was originally granted development consent in 1992 under DA 11/92 by the then Minister for Planning, pursuant to Section 101 under Part 4 of the EP&A Act. This Development Consent permitted the construction and operation of an underground coal mine, which commenced in 1995.

Development Consent SSD-5594 was granted to Springvale on 21 September 2015 and replaces the former Development Consent DA 11/92.

Table 1 outlines the relevant Development Consents that have been issued to Springvale.

Table 1 Springvale Development Consents

Consent	Date of Issue	Expiry
SSD-5594	21 September 2015	31 December 2028
DA 11/92	27 July 1992	30 September 2015
DA 11/92 Mod 1	29 June 1993	
DA 11/92 Mod 2	11 April 2004	
DA 11/92 Mod 3	11 March 2013	
DA 11/92 Mod 4	5 December 2013	
DA 461/02	23 January 2003	N/A
DA 461/02 Mod 1	30 May 2012	N/A
EPBC 2011/5949	14 March 2012	19 March 2032
EPBC 2013/6881	15 October 2015	8 October 2035

Modifications 1 and 2 to SSD-5594 were subsequently approved in 2017 by the Planning Assessment Commission (PAC), under delegation from the Minister. Modifications 3 and 4 to SSD-5594 were approved in 2021 and 2022 by the Director – Resource Assessments of the Department of Planning and Environment (DPE). Details of the consent modifications are outlined in **Table 2** below.

Table 2 Springvale Development Consent Modifications

Modification No.	Details of Modification	Status
Mod 1	• Increase of the approved workforce (including contractors) from 310 full time equivalent (FTE) to 450; • Increase in ROM coal production from the approved 4.5 Mtpa to 5.5 Mtpa; and • Increase in the existing stockpile capacity at the Springvale pit top from 85,000 tonnes to 200,000 tonnes capacity and an increase in the coal stockpile footprint by 0.3ha northeast of the stockpile area.	Approved 19 April 2017
Mod 2	• To remove the requirement to <i>Meet limits for salinity of 700 (50th percentile), 900 (90th percentile) and 1000 (100th percentile) uS/cm by 30 June 2017</i>; and • To defer to 30 June 2019 the requirement to <i>Eliminate acute and chronic toxicity from LDP009 discharges to aquatic species by 30 June 2017, with acute toxicity defined as >10% effect relative to the control group and chronic toxicity defined as >20% effect relative to the control group.</i>	Approved 19 June 2017
Mod 3	• To allow for the management of newly identified Aboriginal cultural heritage sites.	Approved 2 June 2021
Mod 4	• To align the rehabilitation reporting and management conditions with contemporary requirements under the <i>Mining Act 1992</i>.	Approved 25 November 2022

The Development Consent conditions relevant to the preparation of this Strategy along with the sections where they have been addressed are provided in **Table 3**.

Table 3 Relevant Development Consent Conditions

Condition	Condition Requirement	Section Addressed
Schedule 6, Condition 1	The Applicant must prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:	This document
	(a) be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise;	This document
	(b) provide the strategic framework for the environmental management of the development;	Section 1.4
	(c) identify the statutory approvals that apply to the development;	Section 1.6
	(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Section 4.1
	(e) describe the procedures that would be implemented to: - keep the local community and relevant agencies informed about the operation and environmental performance of the development; - receive, handle, respond to, and record complaints; - resolve any disputes that may arise during the course of the development; - respond to any non-compliance; - respond to emergencies; and	Section 4.2 Section 2.5 Section 2.5 Section 3.1.1 Section 3.2
Schedule 6, Condition 6	(f) include: - copies of any strategies, plans and programs approved under the conditions of this consent; and - a clear plan depicting all the monitoring required to be carried out under the conditions of this consent.	Section 2.4 Section 3.1
	Revision of Strategies, Plans and Programs Within 3 months of:	Section 5.3
	(a) the submission of an incident report under condition 10 below;	
	(b) the submission of an annual review under condition 12 below;	
	(c) the submission of an audit under condition 13 below; or (d) any modification to the conditions of this consent (unless the conditions require otherwise), the Applicant must review the strategies, plans, and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.	
Schedule 6, Condition 8	The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedules 3 and 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation. Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:	Section 3.2.4
	(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;	
	(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and	
	(c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.	

Condition	Condition Requirement	Section Addressed
Schedule 6, Condition 10	The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any other relevant agencies with a detailed report on the incident, and such further reports may be requested.	Section 3.2.2

1.6.2 Other Approvals

The surface holdings at Springvale are licensed for the scheduled activity of coal mines within EPL 3607, under the *Protection of the Environment Operations Act 1997*. Springvale also holds three groundwater licences. These other approvals are provided in **Table 4**.

Table 4 Other Approvals held by Springvale

Licence	Works Approval	Date of Issue	Expiry
EPL 3607	-	17 May 2000	Renewed Annually
Groundwater Licence - WAL 36383	10WA118719	5 August 2013	Perpetuity
Groundwater Licence - WAL 36443	10WA118754	25 February 2010	Perpetuity
Groundwater Licence - WAL 36446	10WA118752 10WA118754	4 September 2007	Perpetuity
Dangerous Goods Licence	-	16 February 2012	Perpetuity

Springvale also operates under a *Level 3 Occupation Permit – Infrastructure* issued by the Forestry Corporation of NSW (FCNSW), allowing for infrastructure construction and ongoing surface maintenance to support below ground operations, including ventilation, dewatering and electricity supply infrastructure. Level 2 Occupation Permits are prepared for short term duration activities such as exploration drilling.

The Gardens of Stone State Conservation Area (SCA) was formally proclaimed on 6 May 2022. The SCA encompasses the Newnes Plateau (as Newnes State Forest), Ben Bullen State Forest, Wolgan State Forest as well as other crown lands. Centennial is committed to work collaboratively with NPWS to achieve the objectives for the SCA.

Springvale currently holds thirteen Section 95 Certificates and nine Threatened Species Licences issued by the Biodiversity Conservation Division (BCD). The approvals allow for the installation of monitoring equipment (subsidence and groundwater monitoring) within Shrub Swamps on the Newnes Plateau; for the hand removal of weeds within Newnes Plateau Shrub Swamps; and to undertake remediation works in East Wolgan Swamp (which is a Newnes Plateau Shrub Swamp). Newnes Plateau Shrub Swamps are listed as an Endangered Ecological Community (EEC) under the former *Threatened Species Conservation Act 1995* (TSC Act) and then under the *Biodiversity Conservation Act 2016*. Previous certificates have been granted for geotechnical and geophysical investigations in addition to the installation of monitoring equipment. The certifications were issued under the former TSC Act, pursuant to Section 95(2) and the BC Act Part 2.

1.6.3 Mining Tenements

A summary of the mining tenements held by Springvale are listed in **Table 5**.

Table 5 Springvale Mining Tenements

Lease	Grant Date	Expiry Date
ML 1303	15 December 1992	15 December 2034
ML 1323	3 August 1993	3 August 2035

Lease	Grant Date	Expiry Date
ML 1326	28 September 1993	18 August 2024
ML 1424	18 August 2003	18 August 2024
ML 1537	15 June 2003	15 June 2024
ML 1588	19 October 2006	19 October 2027
ML 1670	17 February 2012	17 February 2033
ML 1727	4 February 2016	4 February 2037
ML 1843	7 February 2023	7 February 2044
MLA 497 [^]	-	-
CL 377	24 February 1992	9 March 2025
MPL 314	3 August 1993	3 August 2035
EL 6974	11 December 2007	13 December 2017*
AUTH 460	7 July 1992	6 June 2020

[^] MLA 497 was submitted 2 June 2015. This application is still being processed.

*EL6974 renewal lodged on 3 November 2017. Application still pending.

The *Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) Regulation 2021* (the Regulation) introduced new standard rehabilitation and reporting conditions on mining leases. The Regulation commenced on 2 July 2021, with a transition period to 2 July 2022. Following the transition period, Mining Operations Plans ceased to exist in NSW. To meet the requirements of the Regulation Springvale Coal developed and implemented a Rehabilitation Management Plan on 1 August 2022.

1.6.4 Extraction Plan

Following the approval of SSD-5594, Springvale was required to undertake secondary extraction in accordance with an approved Extraction Plan (Schedule 3, Condition 10). Four Extraction Plans have been prepared, approved and implemented to date.

- Extraction Plan for Longwall 419, approved 11 July 2016;
- Extraction Plan for Longwalls 420 – 422, approved 21 April 2017;
- Extraction Plan for Longwalls 424 – 427, approved 27 July 2018; and
- Extraction Plan for Longwalls 428 – 432, approved 15 March 2022.

The Extraction Plan includes the following sub-plans:

- Biodiversity Management Plan;
- Built Features Management Plan;
- Heritage Management Plan;
- Land Management Plan;
- Public Safety Management Plan;
- Subsidence Monitoring Program;
- Swamp Monitoring Program; and
- Water Management Plan.

Extraction Plan commitments and requirements are integrated into site environmental management process and procedures.

2 IMPLEMENTATION

Springvale will implement the Centennial Coal Environment and Community Policy and this Strategy by providing effective and adequate resources (human resources, technology and financial resources) and support mechanisms. To facilitate the implementation of the Strategy, position responsibilities as described in **Section 4.1** have been nominated for employees including the site management, staff and workforce.

2.1 Consultation

Consultation with landowners, residents, non-government organisations and regulatory bodies associated with Springvale has been consistent and open throughout the life of the mine. This has been achieved through personal contact, newspaper notices and meetings. There is also a more formal process for community consultation which is undertaken through the Community Consultative Committee (CCC) as well as through other tools such as the Centennial Coal website.

Springvale is aware of its community obligations and the need to keep communication open and honest. Springvale will therefore strive to keep the local community that is affected by its operations informed of the direction, plans and environmental performance of the mine.

Springvale undertakes ongoing consultation with Lithgow City Council, National Parks and Wildlife Service (NPWS), DPE Water, WaterNSW, the Environment Protection Authority (EPA), BCD, Subsidence Advisory NSW, Department of Regional NSW – Resources Regulator (RR), CCC, DPE, and the Department of Climate Change, Energy, the Environment and Water (DCCEEW). This consultation is required under the Conditions of SSD-5594 when submitting various plans for approval, and is also undertaken by Springvale to report on its environmental performance. This is facilitated through various activities including:

- Lithgow City Council representation on the CCC;
- CCC presentation and reports published to the website;
- Liaison with the EPA regarding EPL conditions;
- Provision of the Annual Review to DPE, RR and other relevant Government agencies;
- Provision of the Annual Rehabilitation Report and Forward Program to RR;
- Provision of the Annual Return to EPA; and
- Provision of the National Pollution Inventory (NPI).

Springvale will also consult with employees and contractors when a decision is to be made that may affect a person's health, safety or welfare and the environment. Examples of situations requiring consultation include, but are not limited to:

- Changes to work environments, work methods, work systems, equipment or substances;
- Undertaking, or reviewing risk assessments and implementing controls;
- Investigating incidents;
- Determining environmental training needs;
- Developing a scope of work; and
- Undertaking projects that require a designated project manager.

Community and stakeholder consultation will continue throughout future operations at Springvale.

2.1.1 Health and Safety, Environment and Community Committee

The Health and Safety, Environment and Community (HSEC) Committee meet on a monthly basis to oversee the safety and environmental performance of Springvale. HSEC Committee members are encouraged to communicate environmental messages, issues, concerns and performance to the employees at the operations.

2.1.2 Employees and Contractors

Each employee or contractor at Springvale is responsible for following the Centennial Coal Environment and Community Policy. Springvale provides training for the Policy to all personnel applicable to their discipline of work. Environmental training and any relevant information is typically provided through:

- New staff (including contractors) and visitor induction training;
- Environmental and community awareness training;
- Toolbox training; and
- Any other specific training as required (e.g. project).

Shift and team briefings provide the opportunity for discussion with individuals on matters that may be of concern to them. They will be able to voice concerns regarding environmental matters during these briefings.

2.1.3 External Providers

External providers will receive relevant information which will have an influence on their organisation / personnel through their contact or supervisor at Springvale. If further information is required to perform a task it can be attained on request. All relevant information regarding health, safety and environment should be provided prior to work commencement.

2.2 Risk Assessment

Springvale has adopted the Stature Risk Assessment Program which was developed to ensure consistency in all risk assessments across the Centennial Coal operations. The Stature Risk Assessment Program sets out an environmental consequences table and risk ranking matrix for managing identified risks.

Springvale identify environmental and community risks and controls for the operations through a Broad Brush Risk Assessment (BBRA) process which are undertaken annually to meet the requirements of the Centennial Coal Environment and Community Policy. The assessment is contained with the site document Environmental Risk Register. A risk assessment register is maintained at Springvale.

This assessment considers the operational activities of Springvale, identifies the potential environmental hazards associated with the activity and assesses the potential risk posed by that hazard. Specific Risk Assessments are undertaken as triggered by approval requirements or changes in operations (e.g. mine rehabilitation activities and changes to mine extraction plans).

Existing Environmental Management Plans (EMPs) have been prepared which incorporate the risks and controls identified in the abovementioned BBRA. All EMPs have been prepared in accordance with the requirements of SSD-5594 and submitted for approval where required. To ensure the continued implementation and improvement of the Springvale Environmental Management System (EMS), the identification and assessment of site based hazards and risks (aspects and impacts) is undertaken periodically. The primary objectives of the environmental risk analysis include:

- Identification of potential hazards/impacts;
- Determination of the consequence of the hazard/impact occurring;
- Determination of the likelihood of an event occurring;
- Assessment of the risk by determining the probability (likelihood) and consequence (effect) of each hazard/impact; and
- Identification of the controls/safeguards to mitigate the hazard/impact.

All operational processes undertaken at the Springvale operations are subject to the risk assessment process prior to implementation. Potential environmental impacts are considered as part of all risk assessments utilising the Stature Risk Assessment Program.

2.2.1 Risk Management / Hazard Identification

Environmental management at Springvale's operations is regulated by the licences, leases and approvals as described in **Section 1.6**. Additionally, this Strategy provides a framework under which environmental issues are managed on site.

The EMS has been developed and implemented to ensure the effective management of environmental issues and compliance with all regulatory requirements while providing a means for continued improvement in the environmental performance of Springvale. The EMS incorporates a number of Environmental Management Plans that are designed to assist in meeting community and regulatory expectations. Springvale's Environmental Management Plans are detailed in **Section 1.4.2**.

2.3 Environmental Management Activities and Controls

2.3.1 Management of Cumulative Impacts

Cumulative impacts for aspects such as terrestrial and aquatic ecology, traffic, noise and air quality were analysed in the Springvale Mine Extension Project EIS in 2014. Mitigation measures for each environmental aspect are addressed in individual environmental management plans listed in **Section 2.4** of this document.

2.3.2 EMS Performance Objectives

Table 6 lists the overall objectives and performance outcomes of SSD-5594 during construction, mining and decommissioning of Springvale operations and the environmental management plans developed to manage these key environmental elements.

Table 6 EMS Performance Objectives from SSD-5594

Key Environmental Element	Objective	Performance Outcomes	Management Plan
Subsidence	There should be no greater subsidence impacts or environmental consequences than predicted in the EIS. First workings are to remain long-term stable and non-subsiding. No damage or additional risk to key public infrastructure. All built features to be always safe. Negligible additional risk to public safety.	Comply with the applicable conditions and performance measures relevant to subsidence management in Development Consent SSD-5594 or Extraction approvals (for relevant panels).	Extraction Plan Temperate Highland Peat Swamps on Sandstone Monitoring and Management Plan
Noise	All noise impacts are minimised to the greatest extent possible. The noise management plan will include continuous, unattended noise monitoring and operator attended quarterly noise monitoring.	Comply with the applicable noise criteria in Development Consent SSD-5594 and EPL 3607.	Western Region Noise Management Plan
Air Quality / Greenhouse Gas	Ensure all relevant statutory requirements and standards are met. Manage and minimise the impact of dust from mining operations on the environment and nearby residences. Maintain acceptable levels of air quality for surrounding residents. Implement reasonable measures to minimise the release of greenhouse gas emissions from the mine. Maintain effective response mechanisms to deal with issues and complaints.	Comply with the applicable air quality criteria in the Development Consent SSD-5594 and EPL 3607.	Western Region Air Quality and Greenhouse Gas Management Plan

Key Environmental Element	Objective	Performance Outcomes	Management Plan
Water Management	Minimise the use of clean water on site. Minimise the use of water from external sources. Design, install and maintain erosion and sediment controls in accordance with <i>Managing Urban Stormwater: Soils and Construction</i>. Maximise the diversion of clean water around disturbed areas. Ensure no unlicensed or uncontrolled discharge of mine water off-site. Minimise discharges to surface waters as far as reasonable and practicable.	Comply with the applicable water management performance measures in Development Consent SSD-5594 and the criteria in EPL 3607.	Extraction Plan Western Region Water Management Plan Springvale Water Management Upper Coxs River Action and Monitoring Plan
Biodiversity	Springvale will not clear more than 8.94 hectares of native vegetation for the construction of surface infrastructure on Newnes Plateau. Flora species used in rehabilitation selected to re-establish and compliment local and regional biodiversity.	Comply with the applicable conditions relevant to flora and fauna in Development Consent SSD-5594, EPBC 2011/5949 and EPBC 2013/6881.	Extraction Plan Western Region Biodiversity Management Plan Temperate Highland Peat Swamps on Sandstone Monitoring and Management Plan <i>Persoonia Hindii</i> Management and Research Program Western Region Stygofauna Monitoring and Assessment Plan
Transport	Project-related impacts on the road network are limited	Comply with the applicable conditions relevant to traffic and transport in Development Consent SSD-5594.	Construction Traffic Management Plan
Heritage	Ensure that identified and unidentified Aboriginal heritage and non-Aboriginal heritage items are appropriately managed.	Comply with the applicable conditions relevant to heritage in Development Consent SSD-5594. Minimise impact to cultural heritage items of significance.	Extraction Plan Western Region Aboriginal Cultural Heritage Management Plan Western Region Historic Heritage Management Plan
Rehabilitation	Rehabilitated areas contribute to achieving self-sustaining biodiversity habitats. Restore ecosystem function, including maintaining or establishing self-	Comply with the rehabilitation objectives in Development Consent SSD-5594. Undertake progressive	Rehabilitation Management Plan Exploration Activities and Minor Surface

Key Environmental Element	Objective	Performance Outcomes	Management Plan
	sustaining ecosystems comprised of local native plant species. Revegetated final landforms should be stable and sustain the intended land use, should be consistent with surrounding topography, and incorporate relief patterns and design principles consistent with natural drainage.	rehabilitation in accordance with Development Consent SSD-5594.	Infrastructure Management Plan

2.4 Issue Specific Sub-plans

In accordance with the requirements of Schedule 6, Condition 15 of Development Consent SSD-5594 all approved strategies, plans and programs required under the conditions of consent will be made available on the Centennial Coal website www.centennialcoal.com.au.

2.4.1 Extraction Plan

Secondary extraction at Springvale is undertaken in accordance with an approved Extraction Plan. The Extraction Plan includes the following sub-plans:

- Biodiversity Management Plan;
- Built Features Management Plan;
- Heritage Management Plan;
- Land Management Plan;
- Public Safety Management Plan;
- Subsidence Monitoring Program;
- Swamp Monitoring Program; and
- Water Management Plan.

Extraction Plan commitments and requirements are integrated into site environmental management process and procedures where relevant.

2.4.2 Western Region Air Quality and Greenhouse Gas Management Plan

In accordance with the requirements of Development Consent SSD-5595, Springvale has prepared an *Air Quality and Greenhouse Gas Management Plan*. This Plan details the management and monitoring of dust and greenhouse gas generated by operations at Springvale to ensure compliance with the requirements of SSD-5594 and EPL 3607, as well as minimising the impact of operations on nearby sensitive receivers. The Plan provides details of the air quality monitoring program which includes depositional dust monitoring and real-time PM₁₀ monitoring.

The Plan also includes details of management measures that will be implemented by Springvale to minimise greenhouse gas emissions from the operations.

2.4.3 *Persoonia hindii* Management and Research Program

Centennial Coal has established a research program for the protection of the endangered shrub *Persoonia hindii*. The associated management and research program therefore outlines the research methodology, such as establishing the distribution, population characteristics and habitat range of the species. The program also outlines collaboration between suitable organisations such as the NSW Botanic Gardens. The program proposes to identify potential cumulative impacts of the mining operations and other activities, on the species.

2.4.4 Temperate Highland Peat Swamps on Sandstone Monitoring and Management Plan

In accordance with Condition 7 of EPBC Approval 2011/5949, Springvale has prepared the *Temperate Highland Peat Swamps on Sandstone Monitoring and Management Plan for Longwalls 415 to 417*. In 2015 a *Temperate Highland Peat Swamps on Sandstone Monitoring and Management Plan* was prepared for Longwall 418 and EPBC 2013/6881 was granted by DCCEEW on 15 October 2015, prior to the commencement of secondary extraction in the panel. The purpose of these Plans is to provide a structure for monitoring the federally listed Temperate Highland Peat Swamps on Sandstone (which includes the Newnes Plateau Shrub Swamps and Newnes Plateau Hanging Swamps communities) systems to determine if there are any mining related impacts upon the communities. During the preparation of the Longwalls 428-432 Extraction Plan, the Longwalls 428-432 Water and Biodiversity Management Plan was approved by DCCEEW. Centennial will continue to liaise with DCCEEW regarding opportunities to consolidate management plans.

2.4.5 Western Region Stygofauna Monitoring and Assessment Plan

Centennial have developed a Stygofauna Monitoring and Assessment Plan for the western region. This plan outlines details regarding the ongoing monitoring of stygofauna in the aquifer systems where they are known to occur. The plan describes the actions that are to be taken, to identify any stygofauna found to a minimum of Family level, and to examine the relationship between bore characteristics and the presence of stygofauna.

2.4.6 Western Region Water Management Plan

In accordance with the conditions of the Development Consent SSD-5594 Centennial Coal has prepared a Western Region Water Management Plan. This Plan outlines the management and monitoring measures that were recommended within the Springvale Mine Extension Project EIS and the associated specialist reports and are now applied by Springvale for water management. Examples of this include separating undisturbed, 'clean water' runoff from disturbed, 'dirty water' runoff to minimise and isolate the amount of 'dirty water' to be treated and either reused or discharged off site.

2.4.7 Western Region Aboriginal Cultural Heritage Management Plan

In 2014 Centennial Coal developed the Western Region Cultural Heritage Management Plan which is applicable to all Centennial sites in the Western region, including Springvale. This Plan was prepared in consultation with the relevant Indigenous stakeholders. The Plan provides a consistent approach to heritage management across its operations in similar geographic locations, and details monitoring and management of Aboriginal cultural heritage sites. The plan also describes in detail, the measures that must be taken if new heritage sites are discovered during operations and the approaches that must be taken to investigate the site.

2.4.8 Western Region Historic Heritage Management Plan

This Western Region Historic Heritage Management Plan (HHMP) was approved in 2018 and was developed to provide a consistent approach to historic heritage identification, recording and management. The HHMP covers historic heritage protected under the *NSW Heritage Act 1977*.

2.4.9 Western Region Noise Management Plan

Springvale has developed a Noise Management Plan to satisfy the requirements of the Development Consent SSD-5594. This Plan outlines the management and monitoring measures that were recommended within the Springvale Mine Extension Project EIS and the associated specialist report.

The Plan includes details of the noise monitoring program that will be implemented to demonstrate compliance with noise criteria in Development Consent SSD-5594 and EPL 3607. The noise monitoring program includes compliance attended quarterly noise monitoring.

2.4.10 Exploration Activities and Minor Surface Infrastructure Management Plan

This Plan has been developed to describe the management of exploration drilling and/or groundwater monitoring activities, and also the construction of surface infrastructure on the Newnes Plateau (including dewatering bore facilities, mine services bore compound, booster pump stations and associated infrastructure corridors).

This Plan has also been prepared to satisfy the requirements of the Construction Traffic Management Plan and the Construction Environmental Management Plan.

2.4.11 Pollution Incident Response Management Plan

Springvale's Pollution Incident Response Management Plan (PIRMP) describes how pollution incidents are reported and managed should they occur at Springvale. It has been developed in accordance with the *Protection of the Environment Operations Act 1997* (POEO Act) and details the timing of pollution incidence reporting.

2.4.12 Environment Management Plans

SSD-5594 CoA	Management plans and programs	Status
S3-10	Extraction Plans	
	LW419	Submitted 10/3/2016 and revision due 29/7/16. This was submitted 6 May 2016. Approved 11/7/2016 subject to conditions
	LW420-422	Submitted 10/3/2017 Approved 21/4/2017 for LW420 and 421 subject to conditions
	LW 424-427	Submitted 17/7/2018 Approved 27/7/2017 for LW425, 426 and 427 subject to conditions
	LW 428-432	Submitted 18/3/2021 Approved 15/3/2022 for LW428-432 subject to conditions
S4-4	Noise Management Plan	Submitted 22/6/2018 Approved 4/7/2018 Note: Western Region Noise Management Plan updated and Approved for Lidsdale Siding Consent (MP08_0223) on 15/2/2021 Approved 1/6/2022
S4-7	Air Quality Management Plan	Submitted 22/6/2018 Approved 4/7/2018 Approved 10/5/2021 Approved 1/6/2022

SSD-5594 CoA	Management plans and programs	Status
S4-13	Upper Cocks River Action and Monitoring Plan	Submitted 29/6/2016 (stage 1) Submitted 29/9/2016 (stage 2) Submitted 24/7/2017 (revised) Submitted 14/02/2023 Submitted 24/04/2023 Submitted 5/06/2023 Approved 07 May 2020 Approved 2/03/2023 Approved 5/06/2023 (despite the DPE's request for more information) No feedback from 5/06/2023 submission
S4-14	Water Management Plan	Submitted 18 March 2016 1 November 2016 24 July 2017 19 October 2017 16 June 2019 Approved 19 February 2021
S4-17	Regional Stygofauna Monitoring and Assessment Plan	Submitted 22/6/2018 Approved 3/7/2018
S4-18	Biodiversity Management Plan	Submitted 28/4/2017 Ongoing- Further revisions are being undertaken to the document as triggered but the receipt of BCD Feedback.
S4-18A	Catchment Improvement and Land Management Plan	Submitted 30/10/2017 Approved 8/3/2018
S4-24	Heritage Management Plan	ACHM submitted 24/7/2017 Historic Heritage submitted 22/6/2018 ACHMP Approved 27/10/2017 Approved 14/10/2021 Historic Heritage Approved 4/7/2018
S4-28	Exploration Activities and Minor Surface Infrastructure Management Plan	Submitted 20/10/2016 Approved 25/11/2016
S4-31A	Springvale Rehabilitation Strategy	Submitted 24/05/23 Pending Approval

SSD-5594 CoA	Management plans and programs	Status
S4-32	Rehabilitation Management Plan	Submitted to DPE 18/3/2016 Submitted to Resources Regulator 24/5/2018 Uploaded to Centennial website 29 July 2022 ¹ Approved Resources Regulator 1/12/2016 Approved DPE 27/7/2018
S6-1	Environmental Management Strategy	Submitted 22/11/2018 Submitted 17/6/2019 DPE comments received 11/12/2018 Approved 08/08/2019 Submitted 23/03/2020 Approved 14/4/2020 Approved 18/6/2021

2.5 Communication

2.5.1 Internal Communication

Internal information regarding environment and community issues are primarily communicated through meetings. Springvale also utilises the following methods to effectively communicate with the workforce and employees.

Displays

Information is displayed at Springvale through the use of noticeboards, work orders, electronic communication, report books and daily meetings.

Tool Box Talks

Tool box talks are undertaken at Springvale as required. These talks discuss key aspects of safety, operational issues and environmental management as relevant to the current operations.

Intranet

Environmental incidents can be communicated via the intranet in the form of a HSEC alert. Other information which can be communicated on Lotus Notes includes good news stories, newsletters and articles in newspapers.

Briefings

Contractors are given information on health, safety and environmental issues in the induction prior to work commencing onsite. All contractors are managed in accordance with the Springvale Contractor Management Plan. Further information can be given to the contractor prior to work commencement to ensure that they are properly informed of the issues regarding the task they are to perform. If a contractor is bringing a chemical to site, they must supply a Safety Data Sheet (SDS).

¹ Mod 4 of SSD-5594 aligns the rehabilitation reporting and management conditions with contemporary requirements under the Mining Act 1992. Following the issuing of Mod 4 the Rehabilitation Management Plan no longer requires approval by DPE.

Signage

Where it is deemed necessary, relevant signage may be used as a form of communication to the workforce and community. This may be used in instances such as environment and safety notices, for the location of equipment, and for providing directions in the event of an environmental emergency.

2.5.2 External Communication**Media**

External communication with the media will be conducted in accordance with the Centennial Coal Stakeholder Engagement Standard. In the event of a media enquiry all contact will be forwarded to the Executive General Manager – External Affairs, who is authorised to speak on behalf of the company to the Media.

Stakeholder Engagement Plan

Springvale will communicate to relevant stakeholders on the relevant environmental and community aspects of the operations in accordance with the Stakeholder Engagement Plan. This plan is designed to maintain communication with external stakeholders regarding Springvale's operations and progress with environmental and community programs through identified forums and via nominated communication mechanisms. The objectives of the Stakeholder Engagement Plan are to:

- Communicate with stakeholders regarding the proposed activities;
- Record and continually assess consultation processes and outcomes; and
- To consider and provide feedback on the outcomes of consultation with stakeholders into the environmental assessment process.

The purpose of the Stakeholder Engagement Plan is to:

- Identify relevant stakeholder groups;
- Effectively manage and facilitate the engagement of stakeholders;
- Communicate with stakeholders and share information;
- Define means of recording feedback from stakeholders and the response; and
- Ensure appropriate monitoring and reporting of community/statutory enquiries and contact as per the Springvale Procedure for External Communication.

Community Consultative Committee

To satisfy the requirements of Schedule 6, Condition 9 of Development Consent SSD-5594, a regional CCC has been established for the Centennial Sites operating within the western region. These are Springvale, Angus Place and Western Coal Services.

The CCC has been established to formalise consultation with the community and to build effective relationships with nominated committee and community members. The CCC is operated in accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments* (Department of Planning 2007).

The CCC provides a forum for community members to discuss environmental and community aspects of the operations by having these on the agenda and for Springvale to provide information or updates to the community regarding these aspects. Meetings are held on a regular basis. The CCC is composed of:

- An independent chairperson;
- Representatives from Centennial Coal, including the Environment and Community Coordinator;
- One representative from Lithgow City Council; and
- At least three representatives from the local community.

The formation of the Springvale and Angus Place CCC was approved by the DPE in 2012. The combined Springvale, Angus Place and Western Coal Services CCC was approved by the DPE in 2016.

Community Complaints and Enquiries

Springvale has a complaints line currently exists at Springvale to receive calls from the local community. The complaints line (02 6350 1640) operates 24 hours a day, 7 days a week. The phone number is listed in the local directory and on the Centennial Coal website for easy access and all residents are encouraged to contact the site regarding any issues of concern.

For the regional community and stakeholders an email feedback link (info@centennialcoal.com.au) is available on Centennial Coal's web page for the community or stakeholders to register concerns or comments.

All complaints are taken very seriously and are logged into a complaints form which incorporates the following details:

- Date and time of the complaint;
- Complainant details;
- Details of the issue or complaint;
- Actions taken to remediate the issue;
- Follow up actions required;
- Details of further liaison with complainant; and
- Closure of the issue.

Centennial Coal operations follow the chart for community initiated contact (refer **Figure 5**) when addressing a complaint. If a complaint escalates into a dispute it will be addressed by mine management. If the dispute cannot be resolved, an independent dispute resolution process will be adopted.

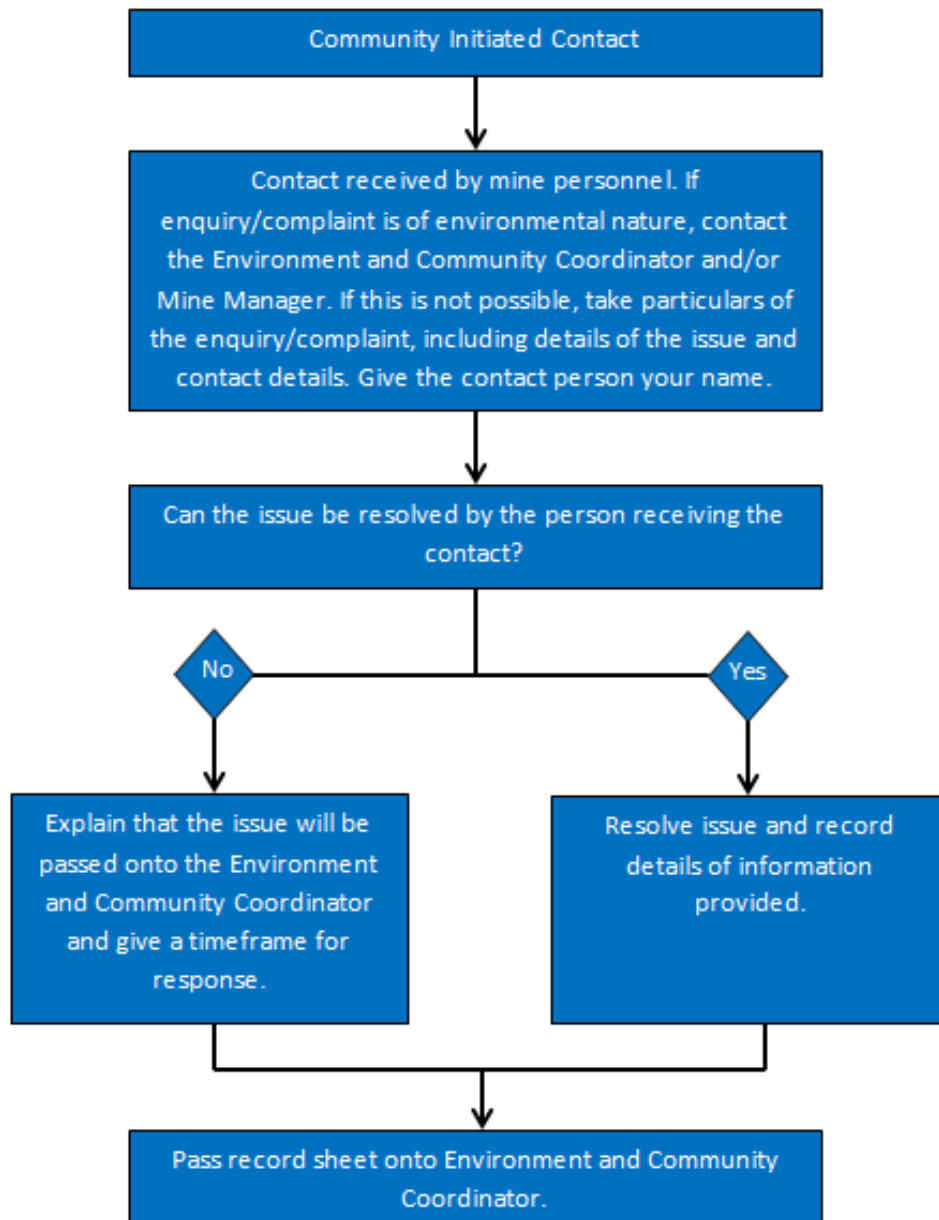


Figure 5 Community Initiated Contact Procedure

Conflict Resolution

The Development Consent SSD-5594 allows for independent resolution of conflicts in relation to the environmental management of Springvale's operations and future project construction. These conditions include independent monitoring of dust, water and noise; the preparation of Extraction Plans in consultation with the Independent Monitoring Panel; the establishment of a CCC; and general dispute resolution.

Springvale will address any conflict arising from its activities through the conflict resolution avenues outlined in the Development Consent SSD-5594. A flow chart showing the Springvale dispute resolution process has been provided as **Figure 6**. To assist in the conflict resolution process, a log is maintained in the Environment and Community Database to record details of all complaints received (Schedule 6, Condition 15 of SSD-5594), which is updated monthly.

Noise

Schedule 4, Condition 1 of Development Consent SSD-5594 contains noise levels that must not be exceeded to ensure compliance. However, these levels do not apply if Springvale has negotiated an agreement with the owner/s of relevant residences or land, and Springvale has advised the DPE in writing of the agreement.

Other Conflict Resolution Aspects

The Development Consent SSD-5594 also provides for independent resolution of conflict relating to:

- Built features including power transmission lines, forest access roads and culverts (Schedule 3, Condition 8 of SSD-5594); and
- Compensatory water supply (Schedule 4, Condition 11 of SSD-5594).

Any dispute between Springvale regarding built features or compensatory water supply is to be settled by the Secretary (refer **Figure 6**). Any decision by the Secretary shall be final and not subject to further dispute resolution, in accordance with Schedule 3, Condition 8 of Development Consent SSD-5594.

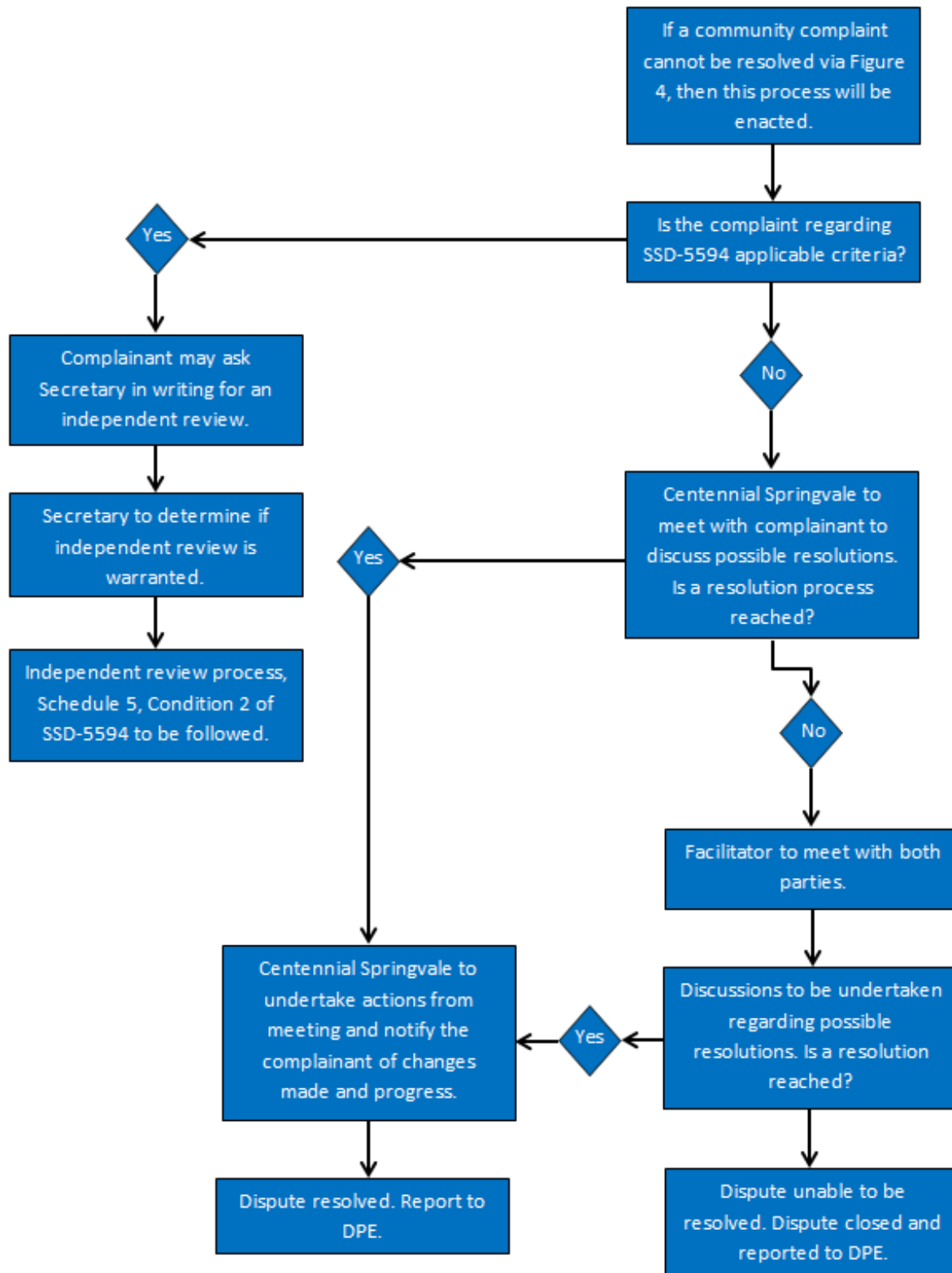


Figure 6 Independent Dispute Resolution Process (Guide Only)

3 MONITORING AND RESPONSE

The implementation of the EMS will be monitored in the Environment and Community Database (ECD), as well as other site work management site systems, and are typically reported on a monthly basis. The systems in place allow for these requirements to be recorded, tracked (i.e. targets achieved, inspections completed, non-conformance or corrective actions completed) and to be reported to the Group Environment Manager and Mine Manager in monthly environmental and operations reports.

3.1 Environmental Monitoring

Environmental management plans and monitoring programs are developed to satisfy the requirements of Development Consent SSD-5594, EPBC 2011/5949, EPBC 2013/6881, EPL 3607 and other held licences. Whilst documents required under SSD-5594 have been prepared, some are yet to be approved by the DPE. Monitoring will be undertaken in accordance with the approved plans and programs outlined within **Sections 2.4.1 to 2.4.11**. Following approval these documents, including details on monitoring locations will be available on the Centennial Coal website.

A summary of EPL 3607 and the Development Consent SSD-5594 monitoring results and compliance status are made available on the Centennial Coal website through reports prepared in accordance with the requirements of SSD-5594 and EPL 3607.

Springvale will monitor the social impacts of its operations by recording and trending complaints over time by entering these in the ECD and reviewing the nature of complaints on a monthly basis. This will assist in determining any additional controls or management strategies required to limit any social or environmental impacts.

Monitoring locations are shown in **Figure 7 to Figure 10**.

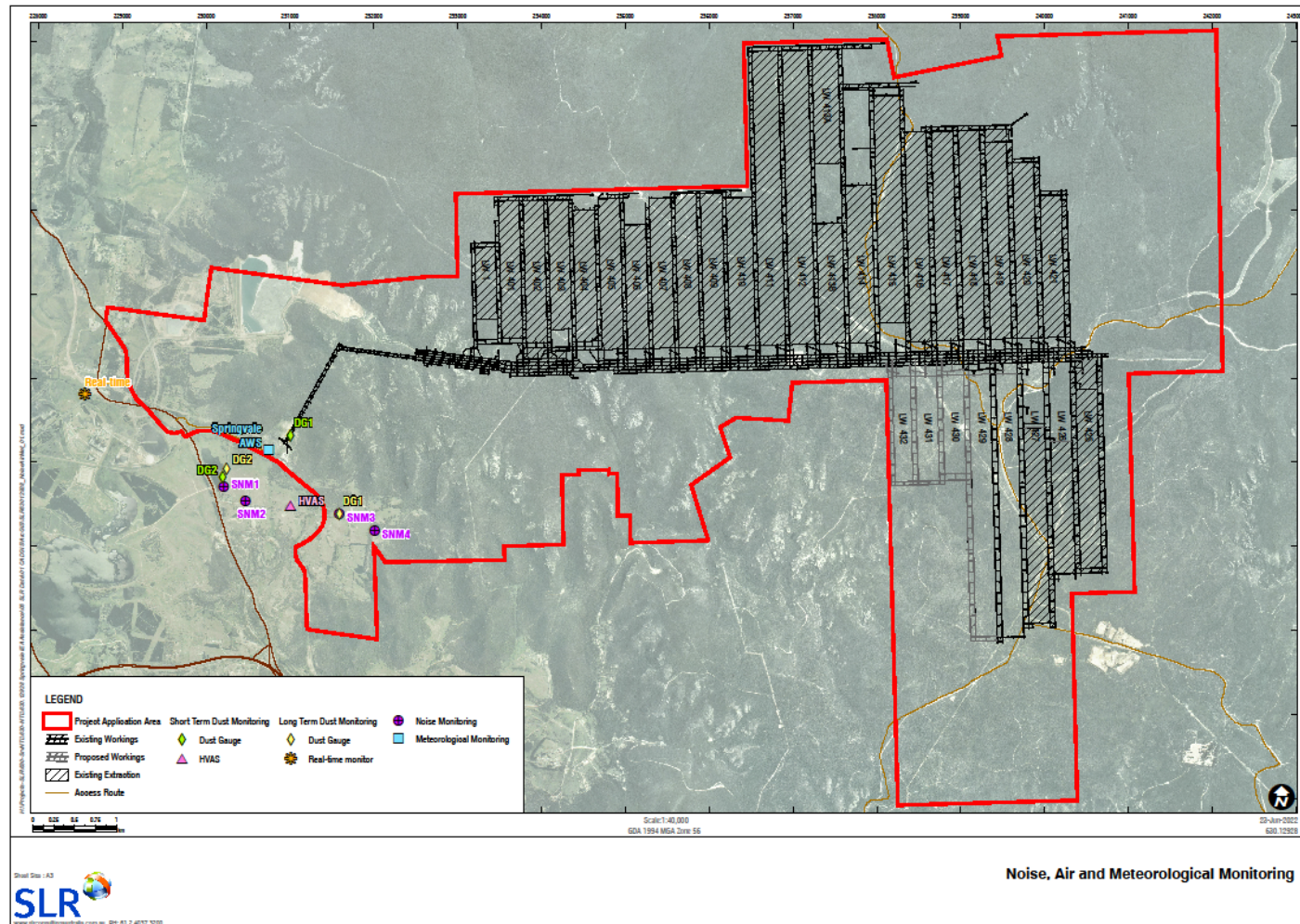


Figure 7 Noise, Air and Metrological Monitoring Locations

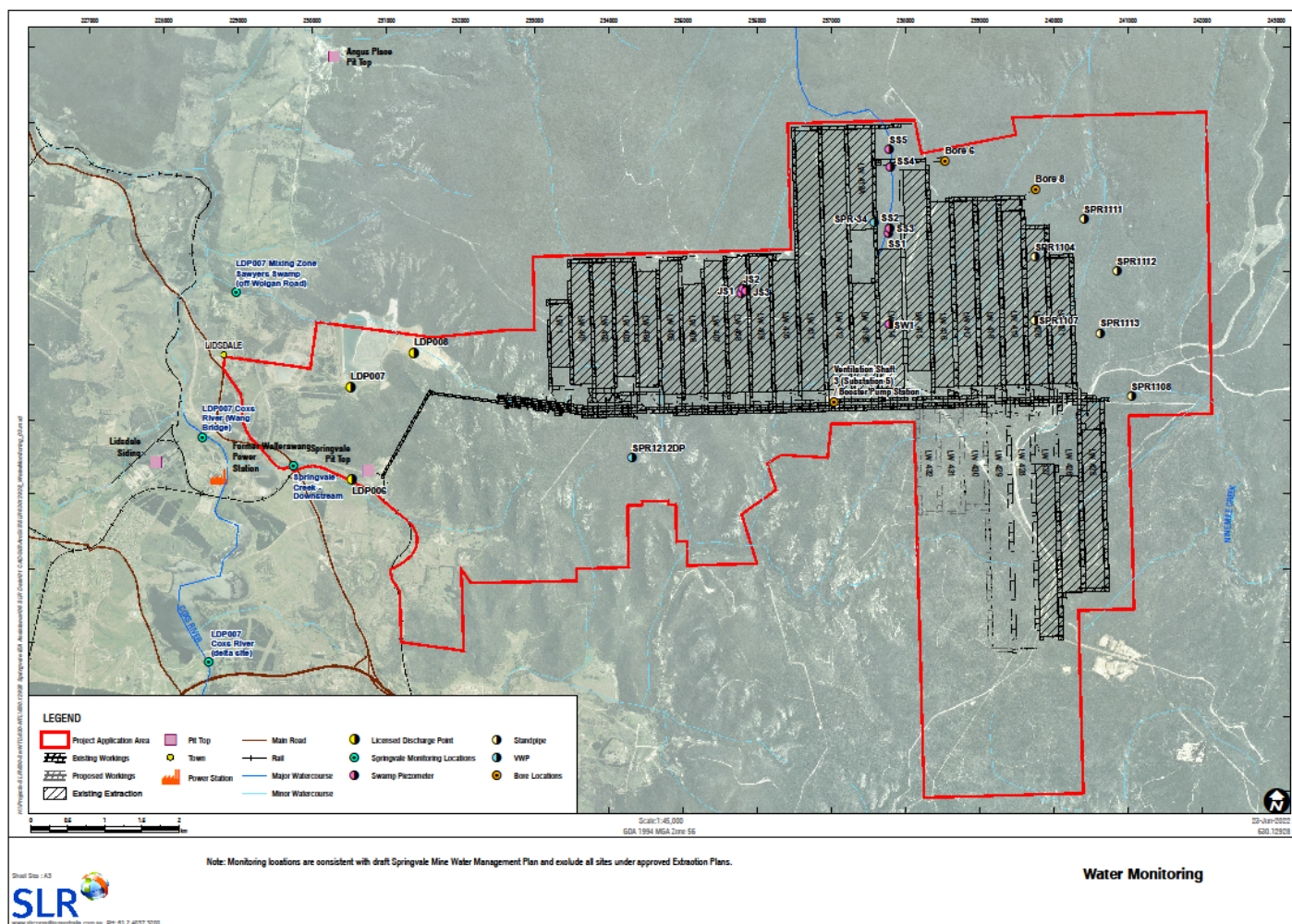


Figure 8 Water Monitoring Locations

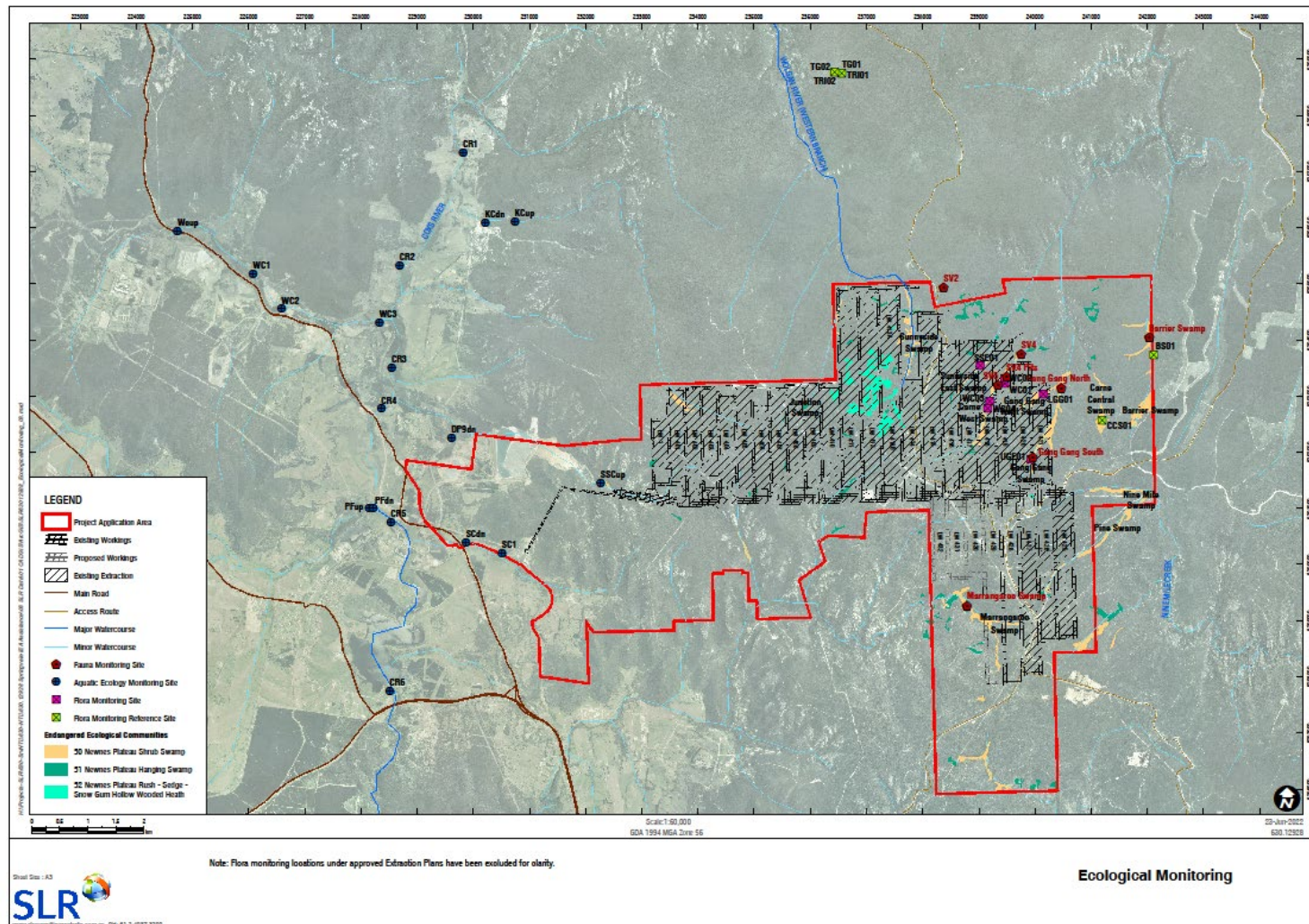


Figure 9 Ecological Monitoring Locations

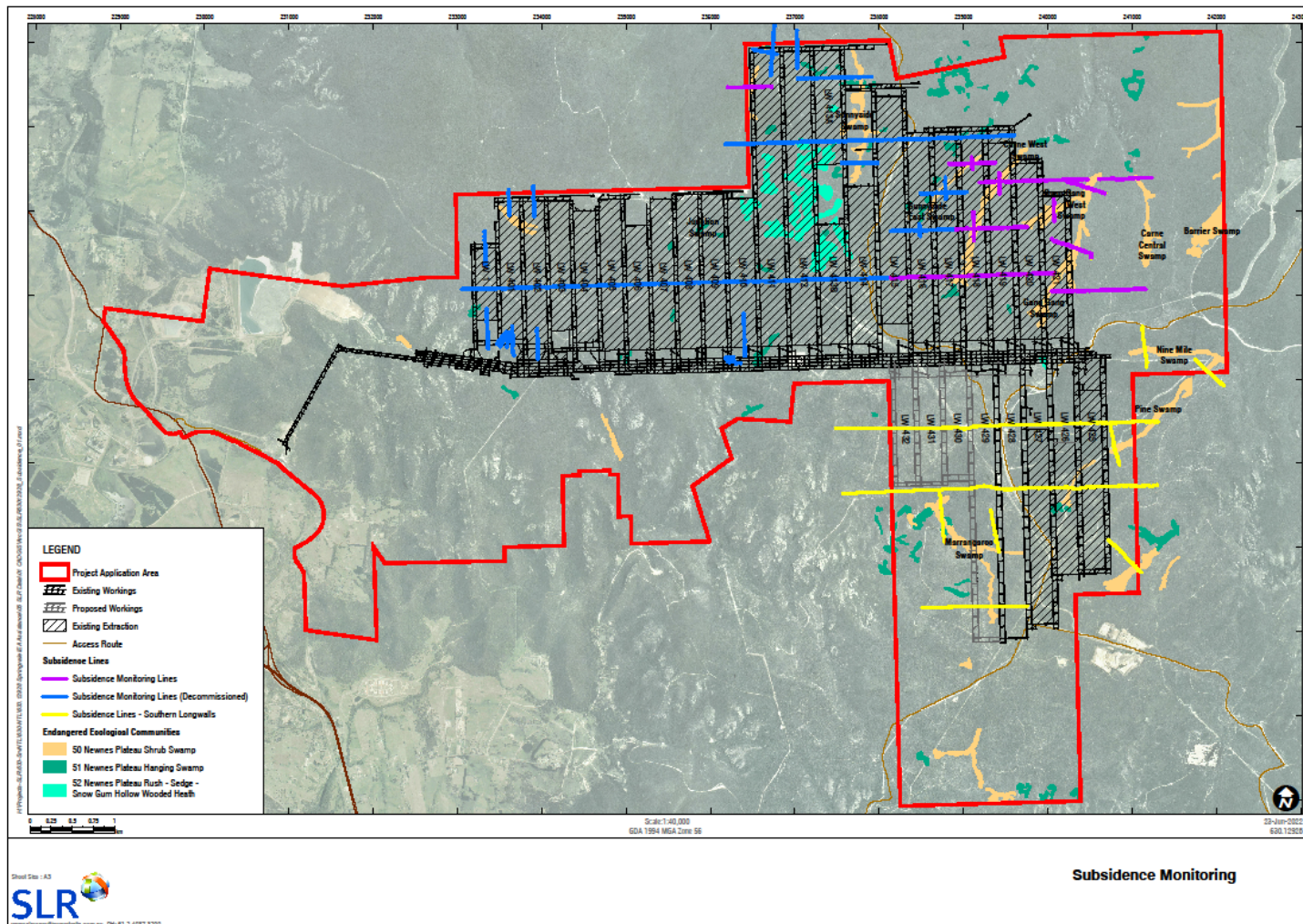


Figure 10 Subsidence Monitoring Locations

3.1.1 Inspections

Regular environmental inspections will be undertaken of the pit top, surface infrastructure areas, construction sites and active subsidence areas. Any non-conformances identified shall be investigated, reported and actioned through the site work management systems.

3.1.2 Compliance Monitoring

Springvale has developed a Compliance Database which is used as the primary tool for tracking compliance with Development Consent SSD-5594, EPBC Approvals, mining tenements, licences and related mining approvals.

3.1.3 Compliance with Consent Conditions

The Development Consent SSD-5594 conditions for Springvale provide methods for monitoring compliance. These include:

- Community Consultative Committee (Schedule 6, Condition 9 of SSD-5594);
- Annual Review (Schedule 6, Condition 12 of SSD-5594); and
- Independent Environmental Audit (Schedule 6, Condition 13 of SSD-5594).

The minutes for CCC meetings, Annual Reviews and Independent Environmental Audit reports will be made available on the Centennial Coal website once completed.

3.2 Emergency Contacts and Response

Emergency and accident situations with the potential to have an impact on the environment are identified by Springvale when considering environmental aspects. Environmental emergencies and accidents are therefore subject to a risk analysis and determination of environmental significance and handled accordingly in the site's EMS. Objectives and targets are identified to mitigate or prevent impacts arising from environmental emergencies and accidents, and an emergency response plan is established to achieve the objectives and targets.

Emergency response regarding a pollution incident at Springvale will be completed as per the Pollution Incident Response Management Plan (PIRMP). The specific requirements for a PIRMP are set out in Part 5.7A of the POEO Act and the *Protection of the Environment Operations (General) Regulation 2009* (POEO (G) Regulation).

Springvale also has developed a site Emergency Management System as part of the Safety Management System. The Emergency Management System adequately addresses any significant environmental emergencies and ensures that an effective response is initiated to minimise any potential environmental impact should the unlikely event of an environmental emergency occur. A procedure for external environmental incident reporting (SV-MS-027-WP-528) has also been developed in instances where such reporting is required. In addition, Springvale will ensure that all employees and contractors at the mine are aware of the Emergency Management System through inductions, training and toolbox talks.

The Emergency Management System will be periodically tested on site. Planned tests outcomes and resultant actions are retained on-site. Springvale's emergency preparedness and response will be reviewed after every test and after the occurrence of each environmental emergency and accident. The aspect identification and significant impact determination of an environmental emergency or accident, and Springvale's Emergency Management System will be revised where appropriate after a review.

Environmental emergencies and accidents are regarded as environmental non-compliances. Accordingly, in the event of an occurrence, immediate action is taken to mitigate the environmental impact, followed by corrective action to avoid a recurrence.

3.2.1 Contacts

Key contacts in the event of a pollution incident are listed in the PIRMP. Personnel responsible for initial response are the Environment and Community Coordinator, and the Mine Manager, whose contact details can be found in the PIRMP.

3.2.2 Incident Reporting

Incident reporting will be completed in accordance with Schedule 6, Condition 10 of Development Consent SSD_5594 and EPL 3607. This will include immediately notifying the Secretary and any other relevant agencies of an incident and supplying a detailed report of the incident to the Secretary and any other relevant agencies within 7 days.

Regulator and external reporting will be completed as per the PIRMP. This plan is a public document and is available on the Centennial Coal website.

Management Plans prepared to address performance measures/conditions are developed to include notification and response processes specific to that performance measure/condition. These Management Plans are summarised in **Sections 2.3 and 2.4** of this document.

3.2.3 External Incident Reporting

External incident reporting will be completed as per the PIRMP. This plan is a public document and is available on the Centennial Coal website.

3.2.4 Adaptive Management

Centennial Coal has developed an Adaptive Management Framework, which is designed to avoid repetition of any unpredicted impacts and/or environmental consequences.

Extraction Plans developed by Springvale include a section on adaptive management, detailing the adaptive management process and any changes made to longwall design to reduce surface subsidence and potential impacts on THPSS. These changes have been designed to consider environmental issues as well as commercially sound principles that enable mining to continue into the future.

4 ENVIRONMENTAL MANAGEMENT

4.1 Structure and Responsibility

The Group Manager Environment has the responsibility and appropriate authority to:

- Ensure that EMS requirements are established, implemented and maintained generally in accordance with ISO 14001 or appropriate environmental standard;
- Report on the performance of the EMS to senior management for review and as a basis for improvement of the system;
- Update personnel regarding changes in environmental legislation, policy and guidelines; and
- To notify Springvale management and other relevant staff of changes that may significantly affect the operations.

4.1.1 Position Responsibilities

Each employee and contactor is responsible for adhering to the Centennial Coal Environment and Community Policy. Whilst the obligation of complying with the Environment and Community Policy lies with the entire workforce, further environmental management responsibilities considered as part of the normal functioning of some positions relevant to the Strategy are described as follows:

Mine Manager

- Authorisation of the EMS;
- Responsible for approving environmental and community objectives and targets set in the Springvale Annual Strategic Plan;
- Reporting significant environmental incidents to external stakeholders as required;
- Promoting compliance with the Environment and Community Policy and fulfilling relevant requirements of the EMS;
- Delegation of resources to ensure environmental risk mitigation strategies are implemented; and
- Delegation of duties during the absence of the Environment and Community Coordinator.

Mine Superintendents

- Maintaining the highest possible environmental standards within their designated areas of responsibility;
- Make use of all identified resources are available to prevent or reduce environmental risks; and
- Immediately reporting environmental incidents and non-compliances to the Environment and Community Coordinator.

Environment & Community Coordinator

- Compliance with the Centennial Coal Environment and Community Policy;
- Reporting of environmental incidents as required to external stakeholders;
- Development and implementation of environmental strategies, plans, and procedures;
- Regulatory and community consultation;
- Registration of community complaints and regulatory liaison in the ECD;
- Development and implementation of environmental work procedures;
- Development and implementation of environmental training and inductions;
- Auditing the effectiveness of the EMS;
- Compliance with all licences and approvals for environmental management of the site;
- Manage subsidence impacts in accordance with the EMS, Extraction Plans and Procedures; and
- Maintain the ECD.

Employees and Contractors

- Compliance with the Centennial Coal Environment and Community Policy, standards and procedures;
- Immediately reporting of environmental incidents and community complaints or enquiries to the Environment and Community Coordinator;
- Conducting operations in accordance with Springvale environmental management plans and procedures; and
- Identifying and implementing appropriate controls for environmental risks from any risk assessments and job safety analysis and communicating these with responsible staff.

HSEC Committee

- Promoting environmental awareness within the workforce and contractors; and
- Raising environmental issues and programs that will improve compliance with the Centennial Coal Environment and Community Policy, standards and procedures at committee meetings for appropriate staff to consider.

Delegation of roles or responsibilities may be determined by the Mine Manager at any time.

4.1.2 Performance Appraisals

The assessment of measurable environment and community performance indicators and programs may be considered by the Mine Manager as part of Staff Performance and Development Review targets for staff at Springvale.

4.2 Reporting

4.2.1 Annual Review

In accordance with the requirements of Schedule 6, Condition 12 of Development Consent SSD-5594 Springvale will prepare an Annual Review prior to the end of March each year (unless the Secretary agrees otherwise). The Annual Review will be completed in accordance with the *Annual Review Guideline – Post-approval Requirements for State Significant Mining Developments* (NSW Government, 2015).

The Annual Review will include information regarding the environmental monitoring conducted by Springvale during the reporting year, any non-conformances and complaints received. This report will be made available on the Centennial Coal website.

4.2.2 Annual Return

An Annual Return stating the sites compliance with the conditions of EPL 3607 is completed and submitted to the EPA on an annual basis. This is done in compliance with the EPL conditions and by the due date as stated in the EPL.

4.2.3 Monthly Website Environmental Monitoring Report

A monitoring report is published on the Centennial Coal website on a monthly basis. This report is prepared to satisfy the requirements under the *Protection of the Environment Legislation Amendment Act 2011* which requires pollution monitoring data to be made available to members of the public. This report also satisfies the requirement of Schedule 6, Condition 15 which requires a comprehensive summary of environmental monitoring results to be made available on the website.

4.2.4 Annual Rehabilitation Report and Forward Program

The *Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) Regulation 2021* (the Regulation) introduced new standard rehabilitation and reporting conditions on mining leases. The Regulation commenced on 2 July 2021, with a transition period to 2 July 2022. To meet the requirements of the Regulation Springvale Coal will prepare an Annual Rehabilitation Report and Forward Program by 31 March annually.

4.2.5 Community Consultative Committee

The Weston Region CCC meets on a regular basis. Some of the information reported at the CCC includes:

- Progress at the mine - operational issues;
- Monitoring and environmental performance; and
- Community complaints and the response to complaints.

4.3 Environmental Training

General awareness of Centennial Coal's EMS is propagated through an EMS training package provided during induction of staff and contractors, and in refresher sessions. General EMS awareness is assessed following the induction and refresher sessions, and records of assessment are maintained on site.

Centennial Coal and Springvale recognise the need to train personnel in environmental management issues. Each employee and contractor is responsible for adhering to the Centennial Coal Environment and Community Policy. Springvale provides training regarding the EMS and the Environment and Community Policy to employees and contractors in their relevant area. Environment and community information and training is typically communicated via:

- New staff, contractor and visitor induction training;
- Site specific environmental and community awareness training;
- Refresher training;
- Toolbox training; and
- Competency based training.

4.3.1 Induction Training

All Springvale employees and contractors will be inducted prior to commencing work on site. The environmental component of the new employees' induction shall include:

- The importance of the Centennial Coal Environment and Community Policy;
- Regulatory requirements;
- Overview of framework of the Centennial Coal EMS;
- Roles and responsibilities;
- Significant environmental aspects, impacts and consequences; and
- Environmental procedures.

Additionally, site specific issues are incorporated into the new employee and contractor site inductions and the competency of inducted personnel assessed.

Visitors to Springvale operations will undertake a brief visitor induction, with an awareness section on key environment components.

4.3.2 Environment and Community Awareness Training

Specific training will provide relevant knowledge and skills to manage environment and community issues within an individual's area of responsibility including:

- Describing the Environment and Community Policy, and also the environmental expectations of Springvale;
- Eliminate practices that may result in poor environmental performance by building the environmental capacity of employees;
- Improve application of existing procedures to improve environmental performance;
- Highlight individual/job role responsibilities;
- Improve environmental decision making and problem solving skills; and
- Reduce environmental risk.

Springvale will undertake regular environmental awareness training. This training will be competency based and consider:

- Springvale's environment and community context;
- Relevant legislation;
- Significant environment and community risks associated with Springvale's operations; and
- Community relations.

4.3.3 Targeted Environmental Training

Targeted environmental training of key staff, workforce and contractors in environmental procedures and programs will also be conducted as required but not limited to the Springvale business plan. Specific environmental training may be delivered in the form of toolbox talks, training and assessment packages, and accredited training programs to update personnel regarding the Springvale procedures and environmental programs.

4.3.4 Environmental Training Competence

The Springvale induction and environmental awareness training incorporates a section to assess the competency of employees and contractors against environmental requirements.

4.4 EMS Integration

This Strategy and the accompanying environmental management plans and procedures are part of the Springvale EMS. Compliance with the system's requirements is an expectation of all employees of Springvale.

4.5 Continual Improvement

Continual improvement shall be achieved through monitoring, internal and external communication with stakeholders, implementation of corrective and preventative actions, and through monitoring progress against the objectives included in the environmental management plans.

5 REVIEW

5.1 Environmental Auditing

Audits can provide an assessment of the implementation of the EMS, the Environment and Community Policy, and the Strategy's objectives. They also allow for continual improvement and resource allocation.

The objectives of an audit are to:

- Identify compliance with the statutory requirements; and
- Identify opportunities for improvement in the Strategy.

External audits of the implementation of and compliance with the EMS will be conducted in accordance with Schedule 6, Condition 13 of SSD-5594.

5.2 Corrective Action

Non-compliances may become evident as a result of inspections, monitoring, through audit findings or complaints. Non-compliances identified shall be investigated and consider:

- (i) The cause of the non-conformance;
- (ii) A review of existing controls to identify modifications required to avoid repetition of the non-conformance; and
- (iii) Identification of the appropriate corrective or preventative action.

The implementation of corrective actions shall be monitored and documented using the ECD and reported in the monthly environmental performance report.

Non-compliances will be reported internally and externally to the relevant authorities as per approval requirements and, where triggered, in accordance with the PIRMP. A record of all non-compliance reporting is to be maintained in the ECD. Non-compliances during the reporting period will be outlined within the Annual Review.

A non-compliance will be investigated as per the Accident / Incident Investigation (Yellow Form) procedure in the Springvale Health and Safety Management System. A record of all non-compliance investigations will be maintained.

5.3 EMS Review

Revisions of the EMS are to be organized by the site Environment and Community Coordinator (or a suitable delegate as directed by the Mine Manager) and will be approved by the Mine Manager. The revision status is contained in the controlled document.

The outcomes of a review will be documented by updating sections of these documents where required and revisions incorporated into the EMS for approval by the Mine Manager. Revised documents will be approved by the Mine Manager.

In accordance with the requirements of Schedule 6, Condition 6 of Development Consent SSD-5594, Springvale will review this Strategy (and associated environmental management plans under SSD-5594) within three months of the following:

- a) Submission of an incident report;
- b) Submission of an Annual Review;
- c) Submission of an Independent Environmental Audit; or
- d) Any modification to the conditions of SSD-5594.

If required, the Strategy (and relevant associated environmental management plans under SSD-5594) will be modified to address evolving site conditions, latent conditions and/or changes to the proposed operations.

This Strategy is a controlled document and will be reviewed on an as needs basis.

Following amendments, a copy of the revised Strategy will be provided to the DPE for approval.

6 BIBLIOGRAPHY

DP&E. (2015). *Annual Review Guideline - Post- approval Requirements for State Significant Mining Developments*. NSW Department of Planning and Environment.

NSW Department of Planning. (2007). *Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments*.

Appendix 1:

Register of Legislation

Relevant NSW State Legislation

NSW State Legislative Act	Summary
<i>Protection of the Environment Operations Act 1997</i> (POEO Act)	Schedule 1 of the POEO Act lists activities that are scheduled activities for the purposes of the Act.
<i>Environmental Planning and Assessment Act 1979</i>	Provides approval and conditions for activities for the purpose of the Act
<i>Mining Act 1992</i>	Administers mining leases and instruments
<i>Water Act 1912</i>	The <i>Water Act 1912</i> governs access, trading and allocation of licences associated with surface water and groundwater sources where a Water Sharing Plan (WSP) is not in place. The <i>Water Act 1912</i> applies to groundwater interference, bore installation and extraction of groundwater.
<i>Water Management Act 2000</i> (WM Act)	The WM Act is intended to ensure that water resources are conserved and properly managed for sustainable use benefitting both present and future generations. WSPs prepared in accordance with the WM Act include rules for protecting the environment and administering water licencing and trading.
<i>Work Health and Safety (Mines and Petroleum Sites) Act 2013</i>	The <i>Work Health and Safety (Mines and Petroleum Sites) Act 2013</i> , aims to assist in securing and promoting the health, safety and welfare of people at work at coal operations.
<i>Mine Subsidence Compensation Act 1961</i>	.
<i>Dams Safety Act 1978</i>	Administers dams prescribed under the <i>Dam Safety Act 1978</i> .
<i>Crown Lands Act 1989</i>	The administration of licence to use Crown Land under the provisions of the <i>Crown Lands Act 1989</i> .
<i>Roads Act 1993</i>	Section 138 of the <i>Roads Act 1993</i> requires consent be obtained prior to disturbing or undertaking work in, on or over a public road. By operation of Section 4.42 of the EP&A Act, consent under Section 138 of the <i>Roads Act 1993</i> cannot be refused if it is necessary for carrying out an approved SSD proposal, and must be granted substantially consistent with the SSD consent.
<i>Biodiversity Conservation Act 2016</i> (BC Act)	The BC Act provides protection for threatened plants and animals native to NSW (excluding fish and marine vegetation) and integrates the conservation of threatened species into development control processes under the EP&A Act.
<i>National Parks and Wildlife Act 1974</i> (NPW Act)	The NPW Act contains provisions for the protection and management of national parks, historic sites, nature reserves and Aboriginal heritage.
<i>Aboriginal Land Rights Act 1983</i>	The <i>Aboriginal Land Rights Act 1983</i> provides for the constitution of local, regional and State Aboriginal Land Councils and a mechanism for Land Councils to claim Crown land.
<i>Heritage Act 1977</i>	Historical archaeological relics, buildings, structures, archaeological deposits and features are protected under the <i>Heritage Act 1977</i>
<i>Contaminated Land Management Act 1997</i>	Administers management of contaminated lands.
<i>Forestry Act 1916</i>	Administers permits from Forestry Corporation of NSW.
State Environmental Planning Policies (SEPPs)	State Environmental Planning Policies (SEPPs) are Environmental Planning Instruments (EPIs) prepared by the Minister to address issues significant to NSW.

Copies of the relevant legislation are available at the following Internet sites:

<http://www.legislation.nsw.gov.au/>