



Springvale

Response to Independent Environmental Audit Recommendations

October 2022



Springvale Response to the Independent Environmental Audit Recommendations October 2022

This document has been prepared to satisfy Schedule 6 Condition 14 of the Springvale Project Approval (SSD 5594).

Table 1 shows the Springvale response to the auditor's recommendations as listed within Table 10 of the 2022 Independent Environmental Audit (IEA) Report relating to Non-Compliance Recommendations.

Table 1: Non-Compliance Recommendations

Schedule and Condition Number	Condition	Compliance Status	Details	IEA- Recommendations	Springvale Response/ Action Plan	Timeframe for Completion of Action
SSD 5594						
Schedule 3 Condition 4	Prior to the commencement of mining, unless otherwise agreed by the Secretary, the Applicant shall lodge a Swamp Offset Bond of \$2,000,000 with the Department. If, after 12 months of completion of all mining under this consent within 400 metres of either Sunnyside East or Carne West Swamps, monitoring demonstrates that no greater than 'negligible environmental consequences' have resulted to the swamp from mining under this consent, to the satisfaction of the Secretary, then the Secretary will release the half of the Bond that applies to that swamp. If monitoring demonstrates that greater than 'negligible environmental consequences' have resulted to either of these shrub swamps from mining under	Admin NC	See Extraction Plan approvals for details of bonds. Self - reported non-compliance from 2021 Annual Review. Implementation The DPE letter noted that Springvale Mine Swamp Offset bonds had expired on 30 June 2021 and had not been replaced at the time the letter was written, subsequently Springvale Mines request for a payment extension had been rejected. The 2021 Annual Review stated: Schedule 3 Condition 4 and 5 require Bonds to be in place for Swamps predicted to be affected by undermining.	No further recommendation	Noted	

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	this consent, and that these consequences have stabilised for a period of at least 12 months, then the Applicant must offset the environmental consequences to that swamp to the satisfaction of the Secretary within any period specified by the Secretary. The offset liability will be set by the Secretary in consultation with BCS, following consideration of: (a) the estimated liability using the Framework for Biodiversity Assessment in accordance with the NSW Biodiversity Offsets Policy for Major Projects; and (b) advice from the Independent Monitoring Panel that will be established by the Secretary for the development. Once the Applicant has offset the environmental consequences to the satisfaction of the Secretary, the relevant proportion of the Swamp Offset Bond will be returned to the Applicant. Notes: Alternative funding arrangements, such as provision of capital and management funding as agreed by BCS as part of a Biobanking Agreement or transfer to conservation reserve estate, can be used as part of the Swamp Offset Bond. A bank guarantee can be lodged in place of a cash bond		The bond previously held by the Department in compliance with the approval expired on 30 June 2021 and has not been replaced. The Bond payment is associated with condition of approval for Longwall 419 Extraction Plan. Bonds do remain current for other Swamps and Extractions plans required under SSD 5594. Centennial requested an extension until 27 February 2022 to supply outstanding bonds for Springvale Mine on 26 November 2021. On 25 February 2022 Centennial has advised that this extension request was not approved. Meetings have been held between DPIE and Centennial in relation to the payment strategy for the bonds. Note, there is no further recommendation as the site is underway with the bond process.			
Schedule 3	"Prior to the commencement of mining operations under an approved Extraction Plan which are predicted to	Admin NC	Implementation	No further recommendation	Noted	

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Condition 5	cause greater than negligible environmental consequences to either Gang Gang South West, Gang Gang East, Pine, Pine Upper, Paddys, Marangaroo Creek or Marrangaroo Creek Upper Swamp, the Applicant shall demonstrate that it can satisfy the maximum predicted offset liability for the total area of swamp(s) predicted to be impacted under that Extraction Plan. If, after 12 months of completion of all mining under this consent within 400 metres of any of these shrub swamps, monitoring demonstrates that no greater than 'negligible environmental consequences' have resulted to the swamp from mining under this consent, to the satisfaction of the Secretary, then the Applicant will not be required to secure the offset or retire the credits relating to that swamp. If monitoring demonstrates that greater than 'negligible environmental consequences' have resulted to any of these shrub swamps from mining under this consent, and that these consequences have stabilised for a period of at least 12 months, then the Applicant must offset the environmental consequences to that swamp to the satisfaction of the Secretary within any period specified by the Secretary.		The DPE letter noted that Springvale Mine Swamp Offset bonds had expired on 30 June 2021 and had not been replaced at the time the letter was written, subsequently Springvale Mines request for a payment extension had been rejected. The 2021 Annual Review stated: Schedule 3 Condition 4 and 5 require Bonds to be in place for Swamps predicted to be affected by undermining. The bond previously held by the Department in compliance with the approval expired on 30 June 2021 and has not been replaced. The Bond payment is associated with condition of approval for Longwall 419 Extraction Plan. Bonds do remain current for other Swamps and Extractions plans required under SSD 5594. Centennial requested an extension until 27 February 2022 to supply outstanding bonds for Springvale Mine on 26 November 2021. On 25 February 2022 Centennial has advised that this extension request was not approved. Meetings have been held between DPIE and Centennial in relation to the payment strategy for the bonds. Note, there is no further recommendation as the site is underway with the bond process.			

Schedule and Condition Number	Condition	Compliance Status	Details	IEA- Recommendations	Springvale Response/ Action Plan	Timeframe for Completion of Action				
	The offset liability will be set by the Secretary in consultation with BCS, following consideration of: (a) the estimated liability using the Framework for Biodiversity Assessment in accordance with the NSW Biodiversity Offsets Policy for Major Projects; and (b) advice from the Independent Monitoring Panel that will be established by the Secretary for the development. Note: Alternative funding arrangements, such as provision of capital and management funding as agreed by BCS as part of a Biobanking Agreement or transfer to conservation reserve estate, can be used as part of the Swamp Offset."									
Schedule 4 Condition 12	The Applicant shall comply with the performance measures in Table 6 to the satisfaction of the Secretary. Table 6: Water Management Performance Measures <table><tr><th>Feature</th><th>Performance Measure</th></tr><tr><td>Water Management – General</td><td> - Minimise the use of clean water on site - Minimise the use of water from external sources </td></tr></table>	Feature	Performance Measure	Water Management – General	- Minimise the use of clean water on site - Minimise the use of water from external sources	Low NC	The relevant conditions from Table 6 are addressed in the following sections of the WMP: Water Management - General - Section 3.2, Figure 3-1, and Section 3.6.1 Construction and operation of infrastructure - Contractor evidence (invoices and maintenance reports) of regular maintenance for erosion control structures was sighted. Clean water diversion - Section 3.2 of WMP Sediment dams - Contractor evidence (invoices and maintenance reports) of regular maintenance for sediment basements.	NC REC 1: For any future incidents, there should be improvements in relation to record keeping with the EPA when asking for advice regarding incidents (e.g. phone call records, emails etc) and written confirmation PIRMP management and reporting is not required. NC REC 2 : Review hydrocarbon storage at site to ensure it meets relevant Australian	SV REC 1: Incidents are to be reported in accordance with the PIRMP. SV REC 2: Review hydrocarbon storage at site to ensure it meets relevant Australian Standards (AS/NZS 3833:2007). Review and update SV-STD-3797 (Springvale Pit Top Hazardous Substance Management and	SV REC 1: 1 November 2022 SV REC 2: 31 March 2023
Feature	Performance Measure									
Water Management – General	- Minimise the use of clean water on site - Minimise the use of water from external sources									

Schedule and Condition Number	Condition	Compliance Status	Details	IEA- Recommendations	Springvale Response/ Action Plan	Timeframe for Completion of Action
	Construction and operation of infrastructure - Design, install and maintain erosion and sediment controls generally in accordance with the series Managing Urban Stormwater: Soils and Including Volume 1, Volume 2A – Installation of Services and Volur Unsealed Roads - Design, install and maintain the infrastructure within 40 m of water generally in accordance with the Guidelines for Controlled Activities Waterfront Land (NSW 2019), or its latest version - Design, install and maintain creek crossings generally in accordance with Policy and Guidelines for Fish Friendly Waterway Crossings (NSW 2003) and Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003), or its versions Clean water diversion - Maximise as far as reasonable and feasible the diversion of clean water from disturbed areas on site, except where clean water is captured for use Sediment dams - Design, install and maintain the new dams generally in accordance with the series Managing Urban Stormwater: Soils and Construction – Volume 2E – Mines and Quarries Mine water storages - Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site - Minimise discharges to surface waters as far as reasonable and practicable - New storages (mine infrastructure dams, groundwater storage or dams) are suitably treated to comply with a permeability standard of 0.1 m/s Mine water discharges - Discharge all groundwater inflow mine water (except from the Rendell through the Springvale Delta Water Transfer Scheme - Meet a limit for salinity of 500 (90th percentile) µS/cm EC by 30 June 2017, and chronic toxicity from LDP009 discharges to aquatic species June 2019, or when the Springvale Water Treatment Project is operational whichever occurs first with acute toxicity defined as >10% effect relative to control group and chronic toxicity defined as >20% effect relative to group - Meet a discharge limit of 0 ML/day of mine water through LDP009 in Springvale Delta Water Transfer Scheme by 1 July 2019 Aquatic and riparian ecosystems - Maintain or improve baseline channel stability - Develop site-specific water quality objectives in accordance with the Guidelines and Using the ANZECC Guidelines and Water Quality Criteria (NSW procedures (DECC 2006), or its latest version Chemical and petroleum storage - Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards		Mine water storages - See below incident regarding vent facility fire line. Mine water discharges - Figure 3-1 (Section 3.2) and Section 3.3.5 of WMP provides management of groundwater inflows to SDWTS. Two dam stability inspection reports titled Surface Dams, Ponds, Conveyor Portal, and Access Portal Stability Visual Inspection - Springvale Colliery prepared by a chartered professional civil engineer dated 26 February 2021 and 17 March 2022 were sighted. The 2021 inspection found the pit top dams to be in generally good condition with the exception of an issue regarding a damaged liner underneath the outlet pipe. Recommendations were made to repair the outlet pipe and liner within six months. The 2022 inspection noted the same damage and found no evidence of attempted repair. Implementation NC1 - Vent Facility Water Incident (based on incident report) Self - reported as non-compliance in the 2020 Annual Review in relation to the 'Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site'. No evidence provided that the PIRMP was not required for this incident. At	Standards (AS/NZS 3833:2007). Review and update SV-STD-3797 (Springvale Pit Top Hazardous Substance Management and Storage) to ensure compliance with the standard. See Section 7 for other improvement recommendations.	Storage) to ensure compliance with the standard.	

Schedule and Condition Number	Condition	Compliance Status	Details	IEA- Recommendations	Springvale Response/ Action Plan	Timeframe for Completion of Action
			time of incident Springvale was unaware of the water quality of volume that had been released. It is noted however that reporting did occur, it just was not immediately. In summary there was a discharge from the main ventilation dam (7 November 2020) after water flowed from burst fire line into dam resulting in dam overflow. Downstream mitigation was sediment control (straw bales) and potentially burst pipe water monitoring at SWTS (110mm diameter pipe with 150mm split) (water quality results in Table 1 of incident report). This incident was self - reported as a non-compliance for S4C12 in the 2020 Annual Review based on 'mine water discharges'. Based on information provided by site there are no PINs for the incident and no evidence that the EPA has declared the incident has caused pollution under Section 120 of POEO Act. NC2 on Chemical and petroleum storage (based on field inspection) There was evidence of several hydrocarbon/chemical containers that were stored on bunds that did not have sufficient capacity under AS/NZS 3833:2007 i.e. doesn't cover 110%. These areas were not draining to an oily water separator and were instead generally draining to Secondary dam. The majority of these hydrocarbons were within mining supply storage area.			

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			Other Field Notes: - The drainage in the area between pit top dam and support storage area does not link up with the rest of the dirty water management system onsite. This means there is an area where 'dirty water' could go offsite into the Biodiversity Conservation area. The drainage in this area should be reviewed. • The pit top area is boggy in patches due top the site having wet coal from underground operations. This makes erosion and sediment control a key management issue. • IEMA noted water flanking around LDP6, with there being a 'sheen' on this water. Note, we do not currently understand the water quality or the reason for the sheen. See recommendation regarding oil and grease testing. The access road has coal fines next to it, with there being a possibility of fines leaving this road area and getting close to the site boundary. See recommendation.			
Schedule 4 Condition 14	The Applicant shall prepare and implement a Water Management Plan for the development to the satisfaction of the Secretary. This plan must: (ii) Surface Water Management Plan, that includes:	Low NC	ii) Surface water management is contained within the WMP. The WMP includes: - A detailed description of onsite surface water management in Section 3.2. - A detailed description of performance criteria and trigger levels in Section 6.2.	NC REC 3: Ensure surface water monitoring is completed as per Section 4.2 of Water MP. Consultation should be undertaken with monitoring contractor to	SV REC 3: Surface water monitoring is to be reviewed against Section 4.2 of the Water MP to identify any gaps in monitoring.	SV REC 3: 28 November 2022

Schedule and Condition Number	Condition	Compliance Status	Details	IEA- Recommendations	Springvale Response/ Action Plan	Timeframe for Completion of Action
	• detailed baseline data on water flows and quality in the waterbodies that could be affected by the development, including Wolgan River, Carne Creek, Marrangaroo Creek and Paddys Creek, Coks River, Lake Lyell, Lake Wallace, Lake Burragorang and associated tributaries; • a detailed description of the water management systems on site, including the: - clean water diversion systems; - erosion and sediment controls; and - mine water management systems; • detailed objectives and performance criteria, including trigger levels for investigating any potentially adverse impacts associated with the development for: - the water management system; - downstream surface water quality; - downstream flooding impacts; and - stream and riparian vegetation health for rivers and creeks and their tributaries potentially impacted by the development; - design and management for the emplacement of coal reject materials; - restoration of an appropriate drainage network on the rehabilitated areas of the site; and		Section 5 is baseline Section 4 is monitoring. - Note there are issues with this discussed below. Also little information of defined inspections after 20mm of rain (see Section 4.1 of Water MP). Implementation (Non-compliance for missed monitoring events): Monthly Monitoring: IEMA reviewed a selection of spreadsheets provided, however it was not a full dataset. It appears that there have been missed monitoring parameters throughout the audit period (i.e. not one-off months). A number of water quality parameters were found to be routinely missed in monthly monitoring including nitrate and nitrite, KN (Total Kjeldahl Nitrogen) and Dissolved Oxygen (February 2022 outlines quarterly during discharge) Missing (February 2022 missing but are in the April) - Total metals: arsenic, boron, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, selenium, silver, uranium, zinc. Note Springvale Creek Downstream missing Quarterly Silica.	ensure it meets these requirements.	SV REC 4: Consultation will be undertaken with the monitoring contractors to review the current monitoring commitments.	SV REC 4: 28 January 2023

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	- control of any potential water pollution from the rehabilitated areas of the site; • a program to monitor and report on: - the performance measures listed in Table 6; - the effectiveness of the water management system; - surface water flows, quality and geomorphology of the watercourses potentially affected by the development within and immediately outside of the site; - the seepage/leachate from on-site water storages; and • consideration of any EPA review of licensed discharge points for the development and any further advice from WaterNSW in relation to water discharges; • an updated Regional Water Quality Impact Assessment Model having regard for variations in Lake Burragorang (salinity and volume) and spillages from Lake Lyell; • reporting procedures for the results of the monitoring program; • a program to validate the Regional Water Quality Impact Assessment Model, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and		Note - looks like based on review of data that missed parameters are being completed quarterly as opposed to monthly. Quarterly monitoring during discharges are occurring on different months over quarter. This makes it difficult to assess compliance and plan testing. Note - triggers are contained in Section 3.2 of surface water quality review. Field Notes - See S4C12 for field notes regarding surface water and recommendations. Also IEMA have already noted the incident relating to the pipeline Vent Facility Water leak. 17:00 on 7 November 2020. The incident was identified by a Springvale Colliery contractor (JR Engineering) at 9:44am on 9 November 2020.			

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	- a plan to respond to any exceedances of the performance measures, and repair, mitigate and/or offset any adverse surface water impacts of the development; and - downstream flooding impacts;					
Schedule 6 Condition 1	The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must: (a) be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise; (b) provide the strategic framework for the environmental management of the development; (c) identify the statutory approvals that apply to the development; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; (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;	Admin NC	Preparation: a) Note older timing. b) Section 1.4 details the strategic framework. c) Section 1.6 outlines the statutory approvals applicable to Springvale Mine. d) Section 4.1 lists the responsibilities for environmental management. e) Section 2.5.2 details stakeholder engagement, complaint handling procedures, dispute resolution. Section 5.2 outlines the response to non-compliances. Section 3.2 outlines the emergency response protocol. f) Table 2.4.11 includes all strategies, plans and programs approved under this consent. Section 3.1 contains plans showing a summary of all required monitoring locations. Implementation: Section 3.2 of the EMS states: "Emergency and accident situations with the potential to have an impact on the environment are identified by Springvale when considering environmental aspects.	NC REC 4: Notification should occur immediately if there is a potential for material harm or actual material harm, with this to be completed under the PIRMP process.	See SV REC 1 above.	

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	• resolve any disputes that may arise during the course of the development; • respond to any non-compliance; • respond to emergencies; and (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.		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)." The transformer incident took close to 24hrs to be reported to the EPA and 48 hours to report to DPE from when Springvale became aware of the incident. Although no material harm was found by the EPA, there was a potential for material harm until the incident investigation was complete. The PIRMP should have been activated immediately for both incidents due to a threat of material harm. As incident notification did not occur immediately the audit team has deemed this condition <u>non-compliant</u>.			
Schedule 6	The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days	Admin NC	The consent defines an incident as: "a set of circumstances that: causes or threatens to cause material harm to the	Recommendation as per Schedule 6 Condition 1.	See SV REC 1 above.	

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Condition 10	of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.		environment: and/or breaches or exceeds the limits or performance measures/criteria in this consent". The transformer incident took close to 24hrs to be reported to the EPA and 48 hours DPE. Although no material harm was found by the EPA, there was a potential for material harm until the incident investigation was complete. The PIRMP should have been activated immediately for both incidents (outlined in Schedule 2 Condition 1) due to the threat of material harm. As incident notification did not occur the audit team has deemed this condition <u>non - compliant</u>. Recommendation as per Schedule 6 Condition 1.			
EPL 3607						
L3.1	For each discharge point or utilisation area specified below (by a point number), the volume/mass of: a) liquids discharged to water; or; b) solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area.	Low NC	Self - reported in the 2021 Annual Review as <u>non-compliant</u>. Only LDP006 applies. Exceedance in volume was self-reported on 7 March 2022 (1375kL) and 8 March 12063kL. This was due to a significant regional rain event including minor flooding in Lithgow. No additional actions.	No additional actions.	Noted	
O1.1	"Licensed activities must be carried out in a competent manner. This includes:	Low NC	<u>Non-compliance</u> based on Chemical and petroleum storage	Recommendation as per Schedule 4 Condition 12.	See SV REC 2 above.	

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	a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity."		There was evidence of several hydrocarbon/chemical containers that were stored on bunds that did not have sufficient capacity under AS/NZS 3833:2007 i.e. doesn't cover 110%. These areas were not draining to an oily water separator and were instead generally draining to Secondary dam. The majority of these hydrocarbons were within mining supply storage area. Recommendation as per Schedule 4 Condition 12 earlier.			
R2.1	Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act. Notifications must be made by telephoning the Environment Line service on 131 555.	Admin NC	The transformer incident took close to 24hrs to be reported to the EPA and 48 hours DPE from Springvale becoming aware of the incident. Although no material harm was found by the EPA, there was a potential for material harm until the incident investigation was complete. Covered by earlier recommendation.	Covered by earlier recommendation.	See SV REC 1 above.	

Table 2 shows the Springvale Response to the IEA Recommendations listed within Table 11 of the 2022 IEA Report relating to Additional Recommended Actions.

Table 2: Additional Recommended Actions

Aspect	Condition Reference	Improvement REC Number	IEA- Recommendation	Springvale Response/ Action Plan	Timeframe for completion of action
Surrender of Existing Development Consents	SSD-5594 Schedule 2 Condition 10	IMP REC 1	Centennial to liaise with DPE regarding surrendering of DA11/92 now that it has been included in the 2022 Audit scope. There have been no compliance issues noted in reviewing DA11/92.	SV IMP REC 1: Centennial to liaise with DPE regarding the surrender of DA11/92.	SV IMP REC 1: 28 January 2023
Subsidence management	SSD-5594 Schedule 3 Condition 1	IMP REC 2	Section 6.5 (Subsidence Management) of the Annual Review should provide a summary outlining how the site has performed, against the performance measures in this condition (schedule 3 Condition 1). This should be in a table format. Where there have been differences to performance measures (predictions) vs measured then further detail should be provided. It is recommended there are columns for: • Aspect. • Performance Measure. • Performance Indicator (e.g. from Extraction Plan). • Actual Performance During the Year (including any proposed actions).	SV IMP REC 2: Section 6.5 (Subsidence Management) of the Annual Review to be updated to provide a summary of site performance against the performance measures in schedule 3 Condition 1. Further detail is to be provided when the monitoring indicates an exceedance of the performance measures.	SV IMP REC 2: 31 March 2023

Aspect	Condition Reference	Improvement REC Number	IEA- Recommendation	Springvale Response/ Action Plan	Timeframe for completion of action
Subsidence management	SSD-5594 Schedule 3 Condition 1	IMP REC 3	Photo monitoring reports should provide analysis of whether changes are the result of Springvale mining activities. Currently these photo monitoring reports provide very little analysis.	SV IMP REC 3: Photo monitoring reports are to include additional information on any identified changes and if they are related to mining activities.	SV IMP REC 3: 28 January 2023
Subsidence management	SSD-5594 Schedule 3 Condition 1	IMP REC 4	Clearly define benchmark values and limits for 'negligible change' in the Biodiversity Management Plans.	SV IMP REC 4: Update the Biodiversity Management Plan to define benchmark values and limits for 'negligible change'.	SV IMP REC 4: 28 February 2023
Extraction Plan	SSD-5594 Schedule 3 Condition 10	IMP REC 5	The height of depressurisation needs to be discussed in six monthly reports and Annual Review in accordance with the Extraction Plan WMP & Extraction Plan SMP. The vertical gradients between shallow and deep piezometers should also be validated.	SV IMP REC 5: Additional information is to be included in the Annual Review and Extraction Plan Reports to discuss the height of depressurisation in accordance with the Extraction Plan WMP & Extraction Plan SMP. The vertical gradients between shallow and deep piezometers should also be validated.	SV IMP REC 5: 31 March 2023

Aspect	Condition Reference	Improvement REC Number	IEA- Recommendation	Springvale Response/ Action Plan	Timeframe for completion of action
Extraction Plan	SSD-5594 Schedule 3 Condition 10	IMP REC 6	Follow up of any TARP investigation in the previous period should be discussed in the next monitoring period. Given that the groundwater inflows are monitored on a regular basis, they should be included in the 6 monthly report and Annual Reviews for consistency.	SV IMP REC 6: Follow up of any TARP investigation in the previous period is to be included in the Extraction Plan Reports and Annual Reviews.	SV IMP REC 6: 31 March 2023
Air quality management	SSD-5594 Schedule 4 Condition 7	IMP REC 7	Air Quality and Greenhouse Gas Management Plan should be updated to include the current monitoring status as per Table 3 of the current plan (i.e. short term monitoring should be removed).	SV IMP REC 7: The Air Quality and Greenhouse Gas Management Plan to be updated for the following: - the current monitoring status as per Table 3 of the current plan (i.e. short term monitoring should be removed). - table 5.1 of TARP in the AQMP to include triggers and actions relating to real time dust levels. Current triggers need to be updated to address nuisance triggering (e.g. insects).	SV IMP REC 7: 28 February 2023
Air quality management	SSD-5594 Schedule 4 Condition 7	IMP REC 8	Update table 5.1 of TARP in the AQMP to include triggers and actions relating to real time dust levels. Current triggers need to be updated to address nuisance triggering (e.g. insects).	IMP REC 7 above.	

Aspect	Condition Reference	Improvement REC Number	IEA- Recommendation	Springvale Response/ Action Plan	Timeframe for completion of action
Water management	SSD-5594 Schedule 4 Condition 12	IMP REC 9	Review drainage area between pit top dam and support storage area to ensure it links up with water management system onsite. Currently small parts of this area water (within the dirty water catchment) can drain offsite into Biodiversity Conservation area.	SV IMP REC 8: Review drainage area between pit top dam and support storage area to ensure it links up with water management system onsite. Currently small parts of this area water (within the dirty water catchment) can drain offsite into Biodiversity Conservation area.	SV IMP REC 8: 28 April 2023
Water management	SSD-5594 Schedule 4 Condition 12	IMP REC 10	Obtain water results for water flanking LDP6 in particular Oil and Grease (other parameters if enough water available). Ensure there is a review of the source of this water and obtain additional testing after 24mm of rain.	SV IMP REC 9: An oil and grease sample is to be taken of the water flanking LDP6. An investigation is to be undertaken to determine the source of the water.	SV IMP REC 9: 28 January 2023

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Water management	SSD-5594 Schedule 4 Condition 12	IMP REC 11	Update to Figure 3.2 Site Catchment Plan to correspond with Dirty Water Clean Water Catchments to site.	SV IMP REC 10: The Water Management Plan is to be updated for the following: - Figure 3.2 Site Catchment Plan to correspond with Dirty Water and Clean Water Catchments onsite - include the catchment which runs into the Oily Water Separator (i.e. from maintenance area and lower hardstand areas) - Figure 3.4 to be updated to include catchment and pipeline links from oily water separator to secondary pond - details of channel stability monitoring.	SV IMP REC 10: 28 February 2023
Water management	SSD-5594 Schedule 4 Condition 12	IMP REC 12	Water Management Plan to be updated to include the catchment which runs into Oily Water Separator (i.e. from maintenance area and lower hardstand areas).	See SV IMP REC 10 above.	

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Water management	SSD-5594 Schedule 4 Condition 12	IMP REC 13	Figure 3.4 in the Water Management Plan should be updated to include catchment and pipeline links from oily water separator to secondary pond.	See SV IMP REC 10 above.	
Water management	SSD-5594 Schedule 4 Condition 12	IMP REC 14	Water Management Plan should be updated to include details of channel stability monitoring.	See SV IMP REC 10 above.	
Water management	SSD-5594 Schedule 4 Condition 12	IMP REC 15	Create and clean drainage line path to collect sediment/coal run off from road exiting site. Note this is a collection drain and water will not necessarily flow to the dam. It will need to be regularly maintained.	SV IMP REC 11: Review the drainage along the access road and identify where additional drainage can be installed. Include any additional drains in the monthly inspection.	SV IMP REC 11: 28 January 2023

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Water management	SSD-5594 Schedule 4 Condition 12	IMP REC 16	Review the site laydown area and develop an improvement plan to improve the laydown areas and trafficable roads at site to minimise tracking of material offsite. Noting currently there are large amounts of wet sediment/coal areas onsite that are used as laydown areas. This may include a review of drainage in these areas and purchasing of additional gravel.	SV IMP REC 12: Review the site laydown area and develop an improvement plan to improve the laydown areas and trafficable roads at site to minimise tracking of material offsite. <i>Noting currently there are large amounts of wet sediment/coal areas onsite that are used as laydown areas. This may include a review of drainage in these areas and purchasing of additional gravel.</i>	SV IMP REC 12: 28 April 2023
Water management	SSD-5594 Schedule 4 Condition 12	IMP REC 17	Implement water management recommendations within the Springvale Surface Stability Review 2021 and 2022.	SV IMP REC 13: Implement water management recommendations within the Springvale Surface Stability Review 2021 and 2022.	SV IMP REC 13: 28 April 2023
Water Management Plan (Surface Water Management Plan)	SSD-5594 Schedule 4 Condition 14	IMP REC 18	Water monitoring going forward should be entered into a cumulative spreadsheet to allow for easier comparison of data and reporting.	SV IMP REC 14: Centennial to consult with the contractors to discuss the format of spreadsheets.	SV IMP REC 14: 28 January 2023

Aspect	Condition Reference	Improvement REC Number	IEA- Recommendation	Springvale Response/ Action Plan	Timeframe for completion of action
Water Management Plan (Surface Water Management Plan)	SSD-5594 Schedule 4 Condition 14	IMP REC 19	Investigate the use of a leak detection system to reduce the likelihood of another pipeline incident occurring in the Ventilation Facility. The current management for leaks on the plateau relies on inspections of areas.	SV IMP REC 15: Investigate the use of a leak detection system to reduce the likelihood of another pipeline incident occurring in the Ventilation Facility	Completed – leak detection system was installed in approximately February 2021. The inline flow meter measures the system flow and looks for a flow discrepancy, if one is detected the system shuts down and alarms control.
Water Management Plan (Groundwater Management Plan)	SSD-5594 Schedule 4 Condition 14	IMP REC 20	Include more detail in the 6 monthly reports and Annual Reviews regarding a response to groundwater triggers.	SV IMP REC 16: More detail is to be included in the Annual Reviews and Extraction Plan Reports regarding a response to groundwater triggers.	SV IMP REC 16: 31 March 2023
Water Management Plan (Groundwater Management Plan)	SSD-5594 Schedule 4 Condition 14	IMP REC 21	Evidence of groundwater model update needs to be provided in Water Management Plan and each Annual Review and comparison of monitoring results with modelled predictions needs to be documented.	SV IMP REC 17: Any groundwater model updates are to be discussed in the Annual Review.	SV IMP REC 17: 31 March 2023
Biodiversity offset management	SSD-5594 Schedule 4 Condition 18	IMP REC 22	Fencing was observed to be down around biodiversity conservation area near top dam and should be repaired.	SV IMP REC 18: Repair the fencing around the biodiversity conservation area near the top dam.	SV IMP REC 18: 28 August 2023

Aspect	Condition Reference	Improvement REC Number	IEA- Recommendation	Springvale Response/ Action Plan	Timeframe for completion of action
Road and transport management	SSD-5594 Schedule 4 Condition 20	IMP REC 23	The main road that leads out of the site should be Included in the weekly inspection (currently in monthly inspection), as well as post 20mm rain. The inspection should check if any mud is leaving site.	SV IMP REC 19: The weekly & post 20mm rain inspection is to be updated to include the main road that leads out of the site to determine if any mud is being tracked from the site.	SV IMP REC 19: 28 December 2022
Road and transport management	SSD-5594 Schedule 4 Condition 20	IMP REC 24	If Springvale is to truck coal again from the site onto public roads they will need to investigate how to better manage the risk of dirt/coal being tracked onto public roads. This may include developing a procedure.	SV IMP REC 20: If Springvale is to truck coal again from the site onto public roads an investigation is to be carried out into how to better manage the risk of dirt/coal being tracked onto public roads. This may include developing a procedure.	Due date not applicable. Currently no plan to truck coal.
Waste management	SSD-5594 Schedule 4 Condition 27	IMP REC 25	Review materials onsite to ensure that all materials are required and improve general housekeeping i.e. older materials and wooden pallets that are not needed to be sorted onsite and general waste to be better managed to avoid litter flowing into offset areas.	SV IMP REC 21: Undertake a housekeeping audit to determine waste that can be sorted and / or removed from the site.	SV IMP REC 21: 28 April 2023
Exploration Activities and Minor Surface Infrastructure Management	SSD-5594 Schedule 4 Condition 28	IMP REC 26	Update and include appendices into EAMSIMP on website.	SV IMP REC 22: Update and include appendices into EAMSIMP on website.	SV IMP REC 22: 28 November 2022

Aspect	Condition Reference	Improvement REC Number	IEA- Recommendation	Springvale Response/ Action Plan	Timeframe for completion of action
Exploration Activities and Minor Surface Infrastructure Management	SSD-5594 Schedule 4 Condition 28	IMP REC 27	Documentation should be improved relating to the implementation of the of EAMSIMP, with this including inspections, management of topsoil during clearing activities and final rehabilitation records.	SV IMP REC 23: Procedures to be updated to ensure alignment with the requirements of the EAMSIMP. This is to include improved record keeping for inspections, management of topsoil during clearing activities and final rehabilitation records.	SV IMP REC 23: 28 August 2023
Recording Pollution Complaints	EPL M5.2	IMP REC 28	If a complaint is received but details are not provided a note should be included in the complaints log.	SV IMP REC 24: Update the Complaints procedure to include a note if the complainant does not want to provide personal details.	SV IMP REC 24: 28 December 2022