

CENTENNIAL WESTERN COAL SERVICES PROJECT MODIFICATION 4

WESTERN COAL SERVICES MOD4 SUBMISSIONS REPORT

for Springvale Coal Pty Limited

23 June 2022



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1. INTRODUCTION

1.1 BACKGROUND

Springvale Coal Pty Limited (Springvale Coal) operates the Western Coal Services (WCS) which comprises a coal handling, processing, transportation and management operation located in the Lithgow Local Government Area (LGA). WCS operates under State Significant Development (SSD) SSD-5579, which was granted on 4 April 2014 by the NSW Planning Assessment Commission, as delegate for the NSW Minister for Planning and Infrastructure.

The Springvale Coal Services Site (SCSS) is a coal processing and storage facility that forms part of WCS. Clean and dirty water is managed on-site at the SCSS as part of existing operations. The SCSS catchment drains towards Licenced Discharge Point (LDP) 001. The majority of water discharged from LDP001 is untreated groundwater from historical mine workings. Runoff is discharged through LDP001 into Wangcol Creek, as licensed by Environment Protection Licence (EPL) 2129.

Wangcol Creek flows south-east to the Cocks River. The discharge of untreated groundwater into Wangcol Creek as currently approved is no longer supported by regulators or the community. In this regard the NSW Environment Protection Authority (EPA) issued Springvale Coal with a Pollution Reduction Program (PRP) Notice on 18 December 2020 to evaluate options for the long-term management of groundwater being discharged from LDP001.

In response to the PRP Notice and ongoing engagement with Government Agencies, other businesses and the community, Springvale Coal has identified opportunities to transfer water to and from other operations in the region, including Mount Piper Power Station (MPPS), Angus Place Colliery and the proposed McPhillamys Gold Mine (McPhillamys). The transfer of water to and from these operations will create a beneficial reuse for water generated at the SCSS and reduce the need to discharge water from LDP001 into Wangcol Creek.

Springvale Coal is seeking to modify SSD-5579, pursuant to Section 4.55(2) of the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act), to change the existing water management system at SCSS to facilitate the transfer of water between the WCS and other operations and to improve the quality of water discharged to Wangcol Creek (MOD 4). *The Western Coal Services Project Modification Report for Modification to SSD-5579* (EMM, December 2021), was prepared to support the application to modify SSD-5579.

The MOD 4 application was placed on public exhibition by the Department of Planning and Environment (DPE) from 8 February to 21 February 2022. There were 13 Advices received from Agencies in relation to the Modification Application, including two from the Biodiversity Conservation and Science Directorate of DPE (BCS). No public submissions were received.

DPE has requested in correspondence dated 2 March 2022, a written response to issues raised in the Advices (as required under Section 104 of the *Environmental Planning and Assessment Regulation 2021*) in the form of a Submissions Report prepared having regard to the DPE *State Significant Development Guidelines – Preparing a Submissions Report* (SSD Submissions Guidelines).

1.2 OVERVIEW OF THE MODIFICATION

Springvale Coal is seeking to modify SSD-5579, pursuant to Section 4.55(2) of the EP&A Act, to allow:

- Construction and operation of the SCSS Water Transfer System, consisting of a new transfer pit, pumps, valves, transformer and motor control centre upstream of LDP001;
- Transfer of water from the SCSS Water Transfer System including:
 - A peak of up to 15.6 megalitres per day (ML/ day) of water to the proposed SCSS/ Regis Transfer System for use at the McPhillamy's Gold Mine; and
 - A peak of up to 2.6 ML/ day of water to MPPS for treatment and reuse within the MPPS cooling water system.
- Receipt of up to 2.6 ML/ day of raw water from the Angus Place Water Transfer System for use in the coal preparation plant at SCSS;
- Changes to the on-site water management system at SCSS to facilitate the transfer of land from Springvale Coal back to Energy Australia and to improve the quality of water discharged to Wangcol Creek.
- An increase in the capacity of the Washery Dam at SCSS to 6.1 ML; and
- Administrative changes to Condition 45 of Schedule 3 of SSD-5579 to align with amendments to the *NSW Mining Act 1992* (Mining Act) and *NSW Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) Regulation 2021* (Mining Amendment Regulation).

The Modification Application appropriately responds to the PRP Notice issued to Springvale Coal on 18 December 2020 by the EPA.

The upgrade of the water management system, construction of the SCSS Water Transfer System and construction and operation of a system to transfer water to MPPS will require a minor increase of an additional 10 hectares (ha) to the project application area (an increase from 339.5 ha to 349.5 ha).

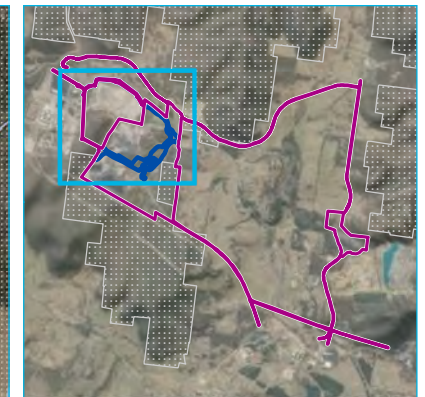
It is not proposed to modify the approved handling, processing or transport operations, the limits on these activities, the project life, employment or hours of operation.

The layout, key elements and proposed water management system for the Modification are illustrated in **Figure 1**, **Figure 2** and **Figure 3**.

\\lemmsvr1\centennial_coal\190806 - Western Coal Services Mod 4\GIS\02_Maps\MR006_KeyProjectElements_20211130_04.mxd 30/11/2021



Source: EMM (2021); Springvale Coal Pty Ltd (2021); ESRI (2021); DFSI (2017); GA (2011)



- KEY**
- Proposed project application area
 - Construction envelope
 - Springvale Coal Services Site
 - Licensed discharge point
 - Mt Piper Power Station Pond D
 - Surface water catchment to be managed by Energy Australia
- Proposed modification elements**
- Bidirectional pipeline
 - Offtake from Angus Place Raw Water Pipeline Project
 - General flow direction
 - Huon Clean Water Pond
 - DWP-A
 - DWP-B
- Proposed modification area**
- Regis and EnergyAustralia water transfer system area
 - DWP-B area
 - Angus Place water offtake and transfer system area
 - DWP-A and clean water diversion area
- Proposed as part of SSD-9505**
- McPhillamys Gold Project pipeline easement
 - Springvale Coal Services Site/Regis Transfer System
- Existing environment**
- Major road
 - Minor road
 - Vehicular track
 - Watercourse/drainage line
 - Waterbody
 - State forest

Proposed modification elements

Western Coal Services Project
Modification Report
Figure 1





Plotfile: N:\SHARED\GDA_2020\Plot File PDF\FASS10060_SCS Existing WMS_20220614.pdf

Esri Community Maps Contributors, Esri, HERE, Garmin, METI/NASA, USGS, Maxar. Source EMM (2022). Drawn D.MacBain. Checked and Approved E.White 14/06/2022.

KEY

- Springvale Coal Services Site
- Licensed Discharge Point
- TT03 Sump Pipeline
- Surface water flowpath (clean)
- Surface water flowpath (dirty)
- Surface Water Storage
- Existing Environment
- Roads
- State Forest

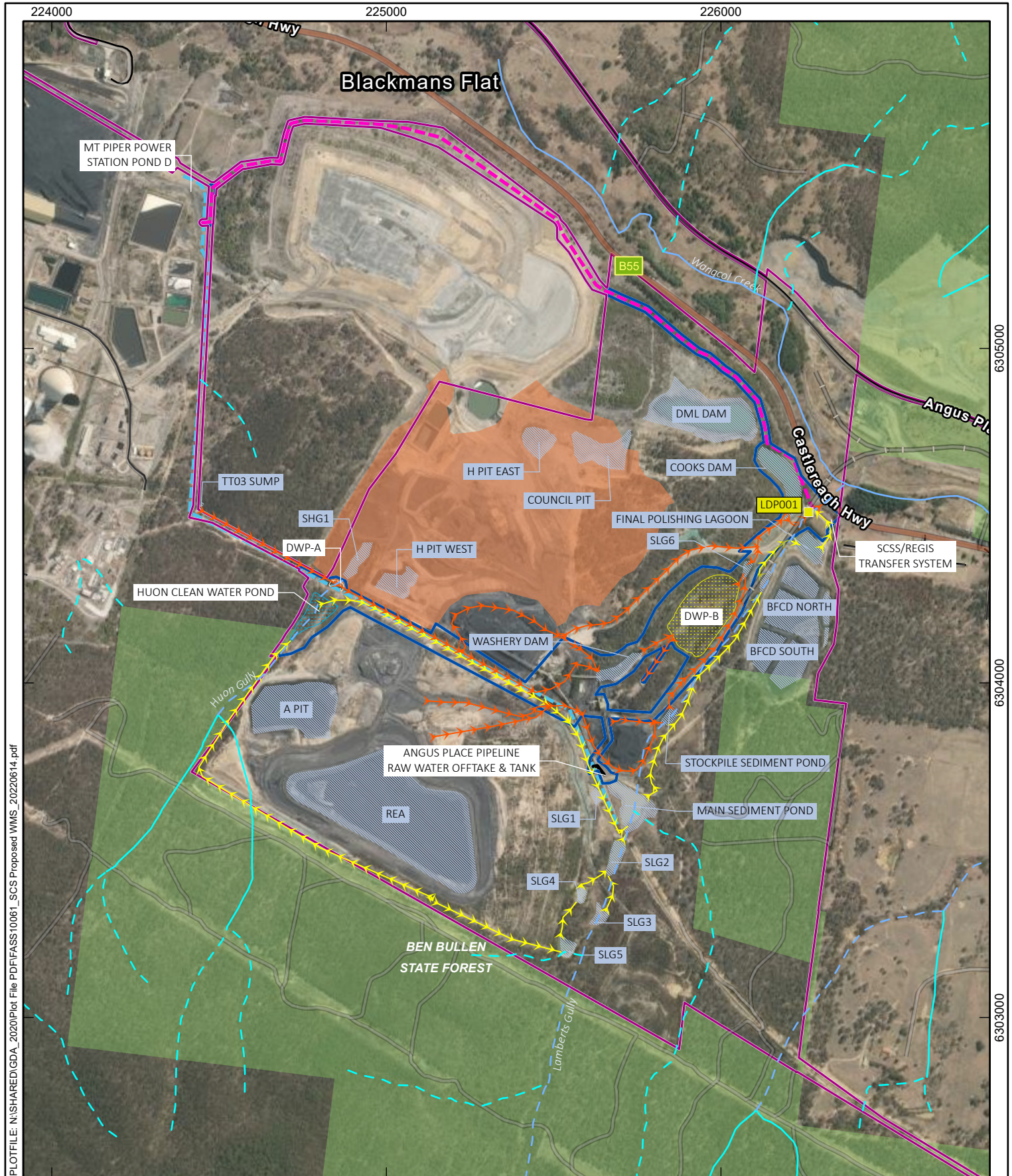
Strahler Stream Order

- 1st order
- 2nd order
- 3rd order
- 4th order

Springvale Coal Services Existing Water Management System

Western Coal Services Project
Figure 2





Esri Community Maps Contributors, Esri, HERE, Garmin, METI/NASA, USGS, Maxar. Source EMM (2022). Drawn D.MacBain. Checked and Approved E.White 14/06/2022.

KEY

- Proposed project application area
- Licensed discharge point
- Construction Envelope
- Indicative Angus Place Raw Water Pipeline Project
- Surface water storage
- Surface water catchment to be managed by Energy Australia

- Proposed modification elements
- Bidirectional pipeline
- Offtake from Angus Place Raw Water Pipeline Project
- Proposed surface water flowpath (clean)
- Proposed surface water flowpath (dirty)

- Huon Clean Water Pond
- DWP-A
- DWP-B
- Proposed as part of SSD-9505
- McPhillamys Gold Project pipeline easement
- Springvale Coal Services Site/Regis Transfer System

- Existing Environment
- Roads
- State Forest
- Strahler stream order
- 1st order
- 2nd order
- 3rd order
- 4th order

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GDA2020 MGA Zone 56

**Springvale Coal Service
Proposed Water
Management System**

Western Coal Services Project
Figure 3

1.3 DOCUMENT PURPOSE

This Submissions Report has been prepared by James Bailey & Associates (JBA) on behalf of Springvale Coal to support MOD 4 to SSD-5579 under Section 4.55(2) of the EP&A Act. The document responds to the issues raised in submissions by stakeholders during the public exhibition period.

1.4 DOCUMENT STRUCTURE

This Submissions Report is structured as follows:

- **Section 2** includes an analysis of the submissions received from stakeholders;
- **Section 3** describes any other relevant actions taken since the exhibition of the Modification Report including government and community consultation and any additional assessment required in response to submissions received;
- **Section 4** provides comprehensive responses to the issues raised by Agencies;
- **Section 5** provides an updated justification for the Modification;
- **Section 6** provides a revised management and monitoring summary;
- **Section 7** outlines all referenced materials relevant to this report; and
- **Section 8** lists the abbreviations utilised in this Submissions Report.

2. ANALYSIS OF SUBMISSIONS

This section provides an analysis and summary of the Government and other Agency advices received in relation to the Modification Application.

2.1 SUBMISSIONS REGISTER

A total of 13 advices were received, including 11 from Government Agencies, one from Council and one from Endeavour Energy.

There were no Government Agencies who objected to the Modification. Several have either provided comments seeking clarification and/or additional information or they have recommended particular approval conditioning to meet their requirements. Support for the Modification was received from Lithgow City Council.

A response to each Advice received from the Regulatory Agencies is provided in detail in **Section 4**.

There were no submissions received from the public and there were no submissions objecting to the Modification.

The Submission Register identifying the sections within this report where each is addressed is provided in **Table 1**.

Table 1 Submissions Register

Submissions	Date	Section/s where Addressed
Government Agencies		
The Department of Planning and Environment	02/03/22	Section 4.1
Biodiversity, Conservation and Science Directorate	18/02/22	Section 4.2
Biodiversity, Conservation and Science Directorate	04/03/22	Section 4.2.3
The Department of Planning and Environment – Crown Lands	18/02/22	Section 4.3
The Department of Planning and Environment – Water	14/03/22	Section 4.4
NSW EPA	14/03/22	Section 4.6
Forestry Corporation of NSW	08/02/22	Section 4.7
Heritage NSW	06/02/22	Section 4.8
Mining, Exploration & Geoscience	16/02/22	Section 4.10
Resources Regulator	04/03/22	Section 4.11
Transport for NSW	23/02/22	Section 4.12
WaterNSW	21/02/22	Section 4.13
Councils		
Lithgow City Council	15/02/22	Section 4.9
Industry Groups		
Endeavour Energy	11/02/22	Section 4.5
Individuals &/or Non-Government Organisations		
Nil received		N/A

3. ACTION TAKEN SINCE EXHIBITION

This section provides a summary of the actions taken since the exhibition of the Modification.

3.1 GOVERNMENT AGENCY CONSULTATION

The proponent has consulted with a number of Government Agencies to clarify and respond to issues raised in their Advices received over the Modification. Although none of the 13 Government Agencies who provided an advice have objected to the Modification, several have sought additional information or have recommended specific conditioning if approval is granted.

Further consultation has been undertaken with a number of agencies, as summarised in **Table 2 Government Agency Consultation**

. These consultations have led to the provision of additional clarifying information and the resolution of the matters that were raised, as discussed in **Section 4** below.

Table 2 Government Agency Consultation

Government Agency	Consultation Method	Consultation Date	Key Discussion Points
EPA, NRAR and DPE	Meeting & Presentation	18/02/2022	Presentation and question session with agencies on the key elements of the Modification.
BCS	Email	21/02/2022	Finalisation of the Biodiversity Credit Report and submission in the Biodiversity Assessment Method Calculator. Resubmission of the Biodiversity Development Assessment Report (BDAR) recertified by an accredited assessor.
DPE	Portal	21/02/2022	Resubmission of the certified BDAR following finalisation of the Biodiversity Credit Report.

3.2 COMMUNITY CONSULTATION

The Proponent has continued to consult and engage with the community since exhibition of the Modification Report. The Western Region Community Consultative Committee (CCC), which is comprised of representatives from the local community and Lithgow City Council held a meeting in May 2022. An update on MOD 4 was provided at the meeting. There were no issues raised during the meeting. The next CCC is scheduled for August 2022. The Centennial Springvale and Springvale Coal Services Website also continues to be updated with links to the Modification Report and any subsequent assessments.

3.3 ADDITIONAL ASSESSMENTS

There have been no further or additional assessments completed since the exhibition of the Modification. Additional information was provided to BCS by Dr Hayden Beck of RPS, dated 21 February 2022, in response to preliminary request for further information from BSC regarding the finalisation of the BDAR.

A final copy of the BDAR, which includes and incorporates all issues raised by BCS, was provided to BCS as outlined in **Appendix A**.

4. RESPONSES TO AGENCY SUBMISSIONS

This section responds to the 13 submissions received from Government and other Agencies. No Government Agency has objected to the Modification. Several have either provided comments seeking clarification or additional information or have recommended particular approval conditioning to meet their requirements.

A response to each of the matters raised by the relevant Government Agency in their Advices on the Modification application is provided below. A copy of the original Advices can be found on the NSW Planning Portal website.

4.1 DEPARTMENT OF PLANNING AND ENVIRONMENT

The DPE requested clarification on several matters pertaining to the timing and alignment between the Modification and the proposed McPhillamy's Gold Project and MPPS.

Issue

Further clarification is required regarding the alignment of the current and proposed operational life of:

- The proposed water transfers;
- McPhillamy's Gold Project; and
- MPPS;

And what contingency measures are proposed should the life of these operations not align.

Response

Energy Australia has indicated their intention to close MPPS by 2040. WCS's current approval expires on the 30 June 2039. Should the MPPS close prematurely, it is highly likely that the SCSS would also cease to operate.

McPhillamy's, if approved, will have a project life of 15 years and is expected to commence construction and operation anywhere between 2024 and 2027. This timing would result in a similar closure period of between 2039 – 2042 (depending on timing of the commencement of operations).

The transfer of water to and from MPPS, Angus Place and the proposed McPhillamys is aimed at creating a beneficial reuse for water generated at SCSS and to also reduce the need to discharge water from LDP001 to Wangcol Creek. Should one or more of these options not be available or not align, there are alternate contingencies proposed as part of this Modification to reduce the volume, frequency and pollutant load of LDP001 discharges to Wangcol Creek under the EPL. This includes:

- Decreasing the volume of catchment runoff from Huon Gully, which currently contributes to SHG1 through the construction of clean water diversions and Huon Clean Water Pond;
- Construction and operation of up to two new dirty ponds (DWP's) DWP-A and DWP-B to capture dirty water run-off where required, as well as increasing the capacity of the Washery Dam to 6.1 ML to provide additional dirty water storage capacity at SCSS;
- Use of up to 2.6 ML/ day of water from Angus Place Colliery as well as mine water from DWP-B in the Coal Preparation Plant (CPP). This use of DWP-B water will allow Cook's Dam to be maintained at a lower level and have greater capacity to manage stormwater runoff from significant rainfall events (minimising the need to discharge water via LDP001 during rainfall events).
- A raw water offtake from Angus Place Pipeline, will also lead to improved mine water quality of water being reused on site and consequently the quality of any LDP001 discharges;

- Increased water storages and diversion of clean water catchments will also reduce the connectivity between groundwater and the SCSS surface water system, thereby reducing the overall amount of water being recharged and captured in site storages; and
- A bi-directional pipeline between SCSS and MPPS, which will allow excess water to be transferred from either Cooks Dam to Pond D at the MPPS or alternatively from Pond D or Cooks Dam to McPhillamy's Gold Project.

McPhillamy's Gold Project will be subject to a mutually beneficial commercial arrangement, whereby up to 15.6 ML/ day of water could be supplied from SCSS, MPPS and Angus Place to meet the operational needs of McPhillamys. Under nominal operations this will be sourced (in order of priority) from:

1. Up to 1.6 to 2 ML/ day of water from Cooks Dam at SCSS;
2. Up to 6 ML/ day from Pond D at MPPS;
3. Up to 7.6 – 8.0 ML/ day from Angus Place Colliery (via McPhillamys pipeline connecting Angus Place Colliery to SCSS).

The Agreement includes triggers to increase and decrease the amount supplied from each source based on the operational needs of the three parties. The Agreement also allow McPhillamys Gold Project to draw water even when MPPS and SCSS cease to operate. In this instance the water would be supplied from Angus Place Colliery.

In the event of excessive rainfall, up to 15.6 ML could be pumped directly from Cooks Dam at SCSS, however, this would only be required for a short duration to prevent Cooks Dam from overflowing during a storm event.

Should the operation of the McPhillamys not align with the proposed Modification, excess water from SCSS would be supplied to Pond D at MPPS. The daily groundwater make from SCSS into Cooks Dam is approximately 1.0 - 1.5 ML/ day. Transferring water from Cooks Dam to Pond D at the MPPS alone would negate the need to discharge water via LDP001 to Wangcol Creek, as shown in Figure 7.4 of the Water Resources Impact Assessment (WRIA) included as Appendix A of the Modification Report.

Issue

Further clarification is required regarding the long-term rehabilitation objectives associated with water discharges from the site post closure and how these objectives would be achieved in the absence of ongoing water transfers to McPhillamy's Gold Project or MPPS.

Response

The currently approved *Western Coal Services Mining Operations Plan, 1st January 2018 – 31 December 2024, MOP Amendment A* (Centennial Coal, 2020), includes details regarding the rehabilitation objectives consistent with the *WCS Environmental Impact Statement* (RPS, 2013) and SSD-5579. This details the rehabilitation and closure objectives for WCS, including (but not limited to):

- Reducing or eliminating adverse environmental effects once the site ceases operation;
- Ensuring closure is completed in accordance with leading industry practice;
- Ensuring that the site, and any nominated infrastructure, can be put to a suitable beneficial use post closure;
- Establishment of clear and agreed criteria that can be used to provide the standard against which the final rehabilitation and post-mining land use can be assessed;
- Creating a stable post-disturbance area for long-term beneficial uses, as well as for native vegetation propagation;
- Ensuring surface water dams identified to be retained will be safe, self-sustaining, and acceptable for the post-mining land uses; and

- Preserving downstream water quality – the quality of surface and ground waters that leave the mining leases will be adequate to maintain, or improve, environmental values and beneficial uses downstream of the WCS Development Consent Area.

Further, as discussed in the Modification Report, the final landform will include permanent water bodies and drainage structures to manage surface water flows and provide water resources for native fauna and stock, with performance indicators to meet water quality within EPL 21229 and SSD-5579 parameters.

The water pipeline to McPhillamys could be retained, if required, for the ongoing beneficial reuse of water by McPhillamys (if still operational), other mining companies, industry or local council. If there is no demand for water reuse, given the area will be fully rehabilitated post closure, any water runoff could be returned to the natural environment via clean water discharges.

Consistent with the proposed Rehabilitation Reforms, detailed documents and plans for mine rehabilitation and closure planning are currently being prepared. This includes completion of a Rehabilitation Risk Assessment, preparation and submission of rehabilitation objectives, rehabilitation completion criteria, Rehabilitation Management Plan, Final Landform and Rehabilitation Plan and a Forward Program. These documents will be finalised by the 2 July 2022 and will incorporate the proposed Modification if approved.

4.2 BIODIVERSITY, CONSERVATION AND SCIENCE DIRECTORATE

4.2.1 Finalisation of Biodiversity Credit Report

BCS provided an initial advice over the Modification on 18 February 2022, noting that a full review of the Biodiversity Assessment Report (BDAR) could not be undertaken as the data requested on 9 February 2022 had not been provided by the Proponent. Further, BCS requested the Biodiversity Credit Report be finalised and submitted in the Biodiversity Assessment Calculator (BAM), followed by the recertification of the BDAR by an accredited assessor within 14 days of the date that the credit report is finalised.

Response

Additional information was provided by Dr Hayden Beck on 21 February 2022 (see **Appendix A**). The BAM credit report was finalised and submitted on the 1 December 2021, however the lodged BDAR incorrectly included an earlier version of the credit report. A revised BDAR including the finalised BAM Credit Summary Report (dated 1/12/21) was provided to BSC as discussed in **Appendix A**. All digital shape files and plot data were also supplied with the BDAR (BAM Appendix K).

4.2.2 Lamberts Gully Rehabilitation Offset Areas and Rehabilitation Area

BCS commented that Section 7.7.3 of the Modification Report identifies that the modification will impact seven hectares of Lamberts Gully Rehabilitation Offset Area and 0.6 hectares of land within the Lamberts Gully Rehabilitation Area, which are rehabilitation and offset areas required under condition 26 and 28 of SSD-5579.

BCS accepted that it is appropriate for the impacts to Lamberts Gully Rehabilitation offset area and Lamberts Gully Rehabilitation Area to be offset via the NSW Biodiversity Offset Scheme, as proposed by the Proponent.

Response

Noted. The Proponent will offset the impacts via the NSW Biodiversity Offset Scheme.

4.2.3 Additional Biodiversity Information – Dr Hayden Beck 21/02/22

BCS reviewed the additional information provided by Dr Hayden Beck (letter dated 21 February 2022) and noted that the biodiversity credit calculations have been verified. BCS were satisfied that all recommendations in their initial response of 18 February 2022 were addressed.

BSC Recommended that if approved, the consent for SSD-5579 Mod 4 should reference the biodiversity credits in the BAM credit report finalised on 01 December 2021 and provided in Appendix B of the Biodiversity Development Assessment Report.

Response

Noted.

4.3 DEPARTMENT OF PLANNING AND ENVIRONMENT – CROWN LANDS

The Department of Planning and Environment – Crown Lands (Crown Lands) noted that there are a number of Crown Land parcels and Crown Roads within the project area, with some located within mining tenements. Further, any Crown Land and/or Crown Roads located within tenements granted under the *Mining Act 1992*, subject to exploration, mining or mining related activities would require a Compensation Agreement, an Access Arrangements, a Section 81 Consent and/or a Works Consent Approval.

Response

Noted. There are no exploration, mining or mining related activities proposed on any Crown Land parcels or Crown Roads as part of this Modification.

4.3.1 Use of Crown Land and Crown Roads

Crown Lands also noted that where there is existing use or it is intended to utilise Crown Land and Crown Roads located outside the mining tenements, an Authority to use, traverse, access or build infrastructure on Crown Land and Crown Roads would be required under the *Crown Land Management Act 2016* and/or the *Roads Act 1993*.

It was recommended that the proponent contact Crown Lands as early as possible to discuss and initiate the processes required to authorise any such use.

Response

Noted. There is no intention to utilise Crown Land or Crown Roads located outside the mining tenements, as a result of this Modification.

4.4 DEPARTMENT OF PLANNING AND ENVIRONMENT – WATER

The DPE - Water and the Natural Resources Access Regulator (NRAR) requested further details on the proposed surface water and groundwater take as well as clarification on the management of the proposed diversion of clean water from Huon Gully Clean Water Pond into Lamberts Gully and release into Wangcol Creek.

4.4.1 Surface Water Take and Licensing

Issue

Recommendation – Prior to Determination

1.1 The proponent should:

- a. Consult with NRAR in relation to the requirement to hold entitlement for the existing and proposed surface water take at the site. This is to confirm that a viable pathway exists.

Response

The Modification proposes the construction of up to three additional water storages, namely Huon Clean Water Pond, DWP-A and DWP-B.

The Huon Clean Water Pond is proposed to be constructed along Huon Gully, immediately upstream of the disturbed area at SCSS. The Huon Clean Water Pond will capture runoff from the undisturbed catchment of Huon Gully (i.e. clean runoff). As shown in **Figure 3**, all water captured by Huon Clean Water Pond will be directed via pipeline into the Main Sediment Pond and drains around the disturbed catchment into Lamberts Gully, which is a tributary of Wangcol Creek. The proposed Huon Clean Water Pond and associated pipeline/ drains will act as a clean water diversion and will not involve any interaction of clean and dirty water.

Licences under the *Water Management Act 2000* (WM Act) are required to account for water taken from water sources that are the subject of a water sharing plan (WSP). The *Water Sharing Plan for the Greater Metropolitan Region Unregulated Water Sources 2011* (Greater Metropolitan Unregulated WSP) applies to the surface water resources in the vicinity of the Modification.

Section 60I of the WM Act states that:

“a person **takes water in the course of carrying out a mining activity** if, as a result of or in connection with, the activity or a past mining activity carried out by the person, water is removed or diverted from a water source (whether or not water is returned to that water source)”.

The proposed clean water diversion will result in transfer of water from Huon Gully to Lamberts Gully. Given that both these watercourses are located within the Upper Nepean and Upstream Warragamba Water Source (under the Greater Metropolitan WSP), no water will be removed or diverted from this water source. As such, Section 60I of the WM Act is not applicable to the proposed clean water diversion. Water access licences are therefore not required for the diversion of clean water from Huon Gully to Lamberts Creek.

The proposed DWP-A is a sediment dam that will capture runoff from the coal conveyor corridor. The proposed location of DWP-A is along a 3rd order stream, as determined using the NSW Government’s hydroline spatial data. This sediment dam does not meet the definitions of any ‘excluded works’ under the *Water Management (General) Regulation 2018* (WM Regulation) because it is not located on a ‘minor stream’ (which is limited to 1st or 2nd order streams) and it will capture water for reuse in mining. As such, WALs are required to account for water captured in DWP-A.

The WRIA included a water balance model, which predicted that DWP-A may capture 3 to 12 ML/year of rainfall runoff (depending on climatic conditions). The Greater Metropolitan Unregulated WSP estimates that there are 15,540.2 unit shares of unregulated river access licences in the Upper Nepean and Upstream Warragamba Water Source. The Proponent will consult with NRAR regarding licensing requirements for the Modification.

DWP-B is proposed to be constructed adjacent to Lamberts Gully and will capture runoff from the coal stockpile pad. DWP-B will assist in containing mine water within the site, thus preventing pollution of Lamberts Gully. For this reason, DWP-B conforms to the following class of 'excluded works' under Schedule 1 of the WM Regulation:

3. *"Dams solely for the capture, containment and recirculation of drainage and/or effluent, consistent with best management practice or required by a public authority (other than Landcom or the Superannuation Administration Corporation or any of their subsidiaries) to prevent the contamination of a water source, that are located on a minor stream."*

DWP-B is not located on a mapped stream. The WM Regulation states that any stream not shown on the hydroline spatial data is deemed to be a 'minor stream'. Accordingly, DWP-B is located on a minor stream and satisfies the criteria for an 'excluded work'. No licences are required for water taken by an 'excluded work'.

4.4.2 Groundwater Take and Licensing

Issue

Recommendation – Prior to Determination

- 1.1 The proponent should:

...

- b. Quantify the changes in groundwater take due to the project in accordance with the requirements of the NSW Aquifer Interference Policy. If an increase in groundwater take is predicted the proponent will need to demonstrate sufficient entitlement can be obtained in the relevant water source.

Response

The WRIA predicted there will be no significant increases in groundwater take as a direct result of this modification. Groundwater is not expected to be intercepted during the construction or operation of the new water storages (Huon Clean Water Pond, DWP-A or DWP-B) or with the increase in capacity of the Washery Dam. Additionally, DWP-B is also proposed to be lined to minimise any interaction with the groundwater environment.

The Modification also proposes transfer of water from Cooks Dam to the proposed McPhillamys Gold Project. The water balance model predicted an average transfer rate of 1.6 ML/day, up to a maximum rate of 15.6 ML/day. The groundwater assessment for the Western Coal Services Project (RPS Aquaterra, 2013) predicted that Cooks Dam and DML Dam may receive up to 0.088 ML/day of groundwater seepage. This demonstrates that groundwater contributes only a minor proportion of inflows to Cooks Dam. Water transferred to McPhillamys Gold Project (if it proceeds) will consist primarily of rainfall runoff or pumped transfers from other dams.

As discussed in the WRIA, Springvale Coal has commenced the development of a numerical hydrogeological model for SCSS and the adjacent MPPS. Once developed, this model will be used to simulate surface water and groundwater interactions at SCSS and further refine predictions of groundwater contribution to the DML Dam, Cooks Dam and Wangcol Creek.

The *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2011* (Greater Metropolitan Groundwater WSP) applies to the bedrock aquifers in the vicinity of SCSS. The Greater Metropolitan Groundwater WSP estimates that there are 6,926 unit shares of aquifer access licences in the Sydney Basin Coxs River water sources, which SCSS is located within.

The Proponent will continue to consult with NRAR regarding water licencing at SCSS to ensure adequate water licence entitlements are maintained.

4.4.3 Post-approval Requirements

Issue

Recommendations – Post Approval

1.2 The proponent must:

- a. Ensure sufficient water entitlement is held in a Water Access Licence/s (WALs) to account for the maximum predicted take for each water source prior to take occurring.
- b. Ensure that relevant nomination of work dealing with applications for WALs proposed to account for water take by the project have been completed prior to the water take occurring.
- c. Report on water take at the site each year (direct and indirect) in the Annual Review.

This is to include water take where a water licence is required and where an exemption applies. Where a WAL is required, the water take needs to be reviewed against existing WALs.

1.3 The proponent should:

- a. Develop a water balance to measure actual water take from surface and groundwater sources, and this should include accurate metering where possible. The water balance should be used in ongoing reviews of actual versus modelled water take and impact predictions. This will be a key component to confirm impact predictions, the adequacy of mitigating measures and compliance for water take.
- b. Be aware of the rules of the relevant water sharing plans and how they may impact the project and ability to trade or take water.

Response

The Proponent will comply with DPE-Water and NRAR requirements, as noted. The Proponent has committed to expanding the current water monitoring program at SCSS to include measuring the volume of water pumped from:

- DWP-A to the Washery Dam;
- Huon Clean Water Pond to the Main Sediment Pond;
- DWP-B to the Washery Makeup Tank;
- Angus Place Colliery to Washery Makeup Tank;
- Cooks Dam to McPhillamys Gold Project; and
- Cooks Dam to Pond D at MPPS.

Monitoring data will be used to further refine the water balance model for SCSS. The water balance model will continue to be reviewed and revised every three years and/or as required following any relevant changes in operations.

4.4.4 Water Management

Issue

Recommendation – Prior to Determination

- 2.1 The proponent should clarify the clean and dirty water storages and management associated with the proposed diversion of clean water from Huon Gully CWP into Lamberts Gully and release into Wangcol Creek. It is recommended clean water be separated from dirty water.

Response

As illustrated in **Figure 3**, the Huon Clean Water Pond is proposed to be constructed on Huon Gully upstream of SHG1 to direct runoff from Huon Gully to Wangcol Creek via the Lamberts Gully clean water diversion. No dirty water will report to the Huon Clean Water Pond. The pond will intercept the clean catchment of Huon Gully and transfer this to the clean water diversion draining to the Main Sediment Pond via a pipe and pump system. The Main Sediment Pond currently receives overflows from sediment ponds in the Lamberts Gully rehabilitation areas (SLG2, SLG3, SLG4 and SLG5). As these areas are fully rehabilitated, the Main Sediment Pond is now considered a clean water dam. Controlled discharges from the Main Sediment Pond occur via a valve and pipe (and/or via overflow) into the primary clean water diversion that reports to the Final Polishing Lagoon and ultimately Wangcol Creek.

The currently approved Water Management Plan will be updated, if the Modification is approved, to include the changes to the water management system associated with the Modification. This will include a detailed description of the SCSS water management system including clean water diversion systems, erosion and sediment controls and mine-water management systems, in accordance with Schedule 3 Condition 24 of SSD-5579.

An inspection and maintenance program will continue to be undertaken in accordance with the approved Water Management Plan to ensure erosion and sediment controls are effective and the integrity and function of dam embankments, spillways and connecting pipework are maintained.

Recommendations – Post Approval

- 2.2 The proponent must:
- a. Prepare a Construction Environmental Management Plan.
 - b. Update the Water Management Plan in accordance with Schedule 5 Condition 5 of the Consolidated Consent Conditions for SSD-5579.
 - c. Ensure works within waterfront land are in accordance with the "*Guidelines for Controlled Activities on Waterfront Land*" (NRAR, 2018).
 - d. Install appropriate lining of Dirty Water Pond B (DWP-B), as proposed.

Response

The Proponent will comply with DPE- Water and NRAR requirements and guidelines, as noted.

4.5 ENDEAVOUR ENERGY

Endeavour Energy (EE) noted that the Modification Report does not appear to indicate any direct or significant impact on the electricity infrastructure on or near the site. However, if the Department or the applicant have any specific issues on which it requires advice related to electricity infrastructure, they can be referred to Endeavour Energy for assessment / advice.

EE Further noted that:

- All encroachments and /or activities (works) within the easements or protected works (other than those approved / certified by Endeavour Energy's Customer Network Solutions Branch as part of an enquiry / application for load or asset relocation project and even if not part of the Development Application) need to be referred to Endeavour Energy's Easement Officer for assessment and possible approval if they meet the minimum safety requirements and controls. However, it was noted that this does not constitute or imply the granting of approval by Endeavour Energy to any or all of the proposed encroachments and / or activities within the easement;
- The minimum required safety clearances and controls for working near overhead power lines must be maintained at all times;
- Not all the conditions / advice marked may be directly or immediately relevant or significant to the Modification / Development Application. However, Endeavour Energy's preference is to alert proponents / applicants of the potential matters that may arise should development within closer proximity of the existing and/or required electricity infrastructure needed to facilitate the proposed development on or in the vicinity of the site occur. The following items were marked for advice:
 - Asset Planning: Applicants should not assume adequate supply is immediately available to facilitate their proposed development;
 - Bush Fire: Risk needs to be managed to maintain the safety of customers and the communities served by the network;
 - Dial Before you Dig: Before commencing any underground activity, the applicant must obtain advice from the Dial Before You Dig 1100 service;
 - Earthing: The construction of any building or structure connected to or in close proximity to the electrical network must be properly earthed;
 - Easement Management: Preference is for no activities to occur in easements and they must adhere to minimum safety requirements;
 - Emergency Contact: Endeavour Energy's emergency contact number 131 003 should be included in any relevant risk and safety management plan;
 - Excavation: The integrity of the nearby electricity infrastructure shall not be placed at risk by the carrying out of excavation work;
 - Flooding: Electricity infrastructure should not be subject to flood inundation or stormwater runoff;
 - Hazardous Environment: Electricity infrastructure can be susceptible to hazard sources or in some situations be regarded as a hazardous source;
 - Modifications: Amendments can impact on electricity load and the contestable works required to facilitate the proposed development;
 - Network Access: Access to the electricity infrastructure may be required at any time particularly in the event of an emergency;
 - Network Asset Design: Design electricity infrastructure for safety and environmental compliance consistent with safe design lifecycle principles;
 - Network Connection: Applicants will need to submit an appropriate application based on the maximum demand for electricity for connection of load;
 - Protected Works: Electricity infrastructure without an easement is deemed to be lawful for all purposes under Section 53 '*Protection of Certain Electricity Works*' of the *Electricity Supply Act 1995* (NSW);

- Prudent Avoidance: Development should avert the possible risk to health from exposure to emissions from electricity infrastructure such as electric and magnetic fields (EMF) and noise;
- Public Safety: Public safety training resources are available to help general public / workers understand the risk and how to work safely near electricity infrastructure;
- Safety Clearances: Any building or structure must comply with the minimum safe distances / clearances for the applicable voltage/s of the overhead power lines; and
- Vegetation Management: Landscaping that interferes with electricity infrastructure is a potential safety risk and result in the interruption of supply.

A number of guidance documents and forms were also provided with the Endeavour Energy Advice including:

- *Endeavour Energy Standard Conditions for Development Applications and Planning Proposals* (Endeavour Energy, 2021);
- *SWo8773 NSW Work Near Underground Assets* (SafeWork NSW, 2007);
- *Work Near Overhead Power Lines, Code of Practice* (WorkCover, 2006);
- *EE Safety on the Job* (EE, ND);
- *EE MD10044 Easements and Property Tenure* (EE, 2017);
- *EE FPJ 6007 Technical Review Request Form August 2019* (EE, 2019); and
- *EE Drawing 86232 OG Line Minimum Clearances* (EE, 1995).

Response

The Modification will not have any direct or significant impact on the electricity infrastructure on or near any Endeavour Energy infrastructure. The Proponent will continue to comply with EE requirements and guidelines, as noted.

4.6 ENVIRONMENTAL PROTECTION AUTHORITY

The EPA assessed the Modification on the basis that the water transferred to MPPS for treatment and processing would remain as an ongoing management system, and any transfer to the McPhillamys Gold Project is at this stage a potential future option.

The EPA supports the proposed modification but makes the below comments and requires additional information to ensure the project in its entirety is fully understood.

4.6.1 Matters to be Addressed Prior to Determination

Issue

The EPA requires clarity around the daily volumes of water proposed to be piped to MPPS. In Table 4.1, page 20 of the modification, it is stated that up to 15.6 ML/day of water would be transferred to the SCCS-Regis transfer system, and up to 2.6 ML/ day piped to MPPS. The EPA requires clarification on the volumes, as this appears to imply that a total of 18.2 ML (15.6 + 2.6) could be produced and discharged from LDP001 daily. It is the understanding of the EPA that 18.2 ML/ day exceeds the historical daily volumes discharged from LDP001.

Response

The SCCS Water Transfer System is designed to have the capacity to transfer a total of up to 15.6 ML/ day to McPhillamys or 2.6 ML/ day to the MPPS to meet the daily demands of those operations. It is not envisaged that this water would need to be discharged at this maximum rate via LDP001, should the transfer to MPPS or McPhillamys not be available. It is also not predicted that this maximum rate would be required to be transferred

for 365 days per year, but rather on an as required basis depending on the needs and commercial arrangement for supply and reuse of water required for McPhillamy's operations. The quantity of water to be transferred under nominal conditions from SCSS is discussed further in **Section 4.1**.

The WRIA provides detailed water balance modelling on the predicted volumes of water to be transferred and discharged from LDP001 under three scenarios:

- Scenario 1 – baseline conditions assuming currently approved operations at SCSS;
- Scenario 2 – proposed conditions assuming all elements of the proposed modification to the SCSS water management system are implemented; and
- Scenario 3 – proposed conditions assuming that the transfer of water to McPhillamys Gold Project does not occur (i.e. demand of nil ML/day), with the other proposed modifications included consistent with Scenario 2.

Under Scenario 2, i.e. the proposed modification, it is predicted that discharges from SCSS to Wangcol Creek via LDP001 will be reduced by 99%. This is a reduction from 616 ML/ year on average under existing conditions, to less than 2 ML/ year on average under proposed conditions.

Under Scenario 3, with the proposed modification but excluding any transfers to McPhillamys Gold Project, any excess water could be transferred to MPPS, resulting in a similar reduction in water discharged via LDP001 for average conditions from 616 ML/ year to 4 ML / year.

The average LDP001 daily discharge rate for both Scenarios 2 and 3 is predicted to be less than 0.01 ML/ day. Whilst the maximum rate is predicted to be 16 ML/ day for only 1 % of the time, which will typically only occur during wet weather periods that comprise several days of rainfall. Discharges are expected to cease shortly after the wet weather conditions end.

Issue

Within Section 8.2 – Alternatives, page 74, dot point 4 states that treatment using brine concentrators (existing or new) would be cost prohibitive to purchase, and the existing system is constrained in capacity. This statement appears to be in contradiction with Section 2.3 – Transfer of Water to MPPS, page 8, stating that water transferred to MPPS from SCSS will be temporarily stored within Pond D prior to treatment within MPPS's brine concentrators, with the permeate water transferred to MPPS's cooling towers. The EPA therefore requires clarification on the use of brine concentrators at MPPS or elsewhere.

Response

Current operations at the Springvale Water Treatment Project, approved under SSD-7592, allows water that is dewatered from Springvale Mine and Angus Place Colliery to be transferred to Pond D at MPPS for reuse within the cooling water management system. This water is temporarily stored within MPPS Pond D prior to treatment within MPPS brine concentrators as necessary.

The proposed Modification is seeking to transfer a nominal amount (up to 2.6 L/ day) of excess water from Cooks Dam at SCSS to the MPPS Pond D to supply the operational demands of MPPS. This would be incorporated into the existing water supply and treatment processes currently in place at MPPS.

The option to transfer water to the MPPS is just one of several measures proposed to reduce excess water being discharged to Wangcol Creek. The statement in Section 8.2 – Alternatives, page 74, dot point 4 remains factual. The current MPPS brine management system does not have the capacity to receive all of the excess water from SCSS and the treatment using brine concentrators (existing or new) of all of the water collected within this system would be cost prohibitive.

Issue

In line with requiring greater clarification around the daily volumes of water being discharged from LDP001, the EPA requires clarification around any brine waste stream generation, disposal and or handling. The EPA notes that dot point two of Section 1.5.2 – Springvale Water Treatment Project, page 5, acknowledges that a "separate

modification will be prepared by Springvale Coal to modify SSD-7592 to allow temporary storage of water within Pond D, treatment of water within MPPS's brine concentrators, transfer of permeate to MPPS's cooling water system and management of brine".

The EPA considers the generation and management of brine to be an important factor in reviewing this modification, despite occurring on a separate premises at MPPS; this modification could have benefitted from providing potential scenarios of brine generation and management, and an assessment of disposal and potential impacts to surface and groundwater. The EPA is aware of the issues around handling and disposal of brine waste at MPPS, and the nearby Veolia plant, and therefore requests additional information on this matter.

Response

The Proponent is not authorised to comment on the current management practices and processes at MPPS. Suffice to say that MPPS have confirmed to the Proponent that they operate under a robust environmental management system that ensures compliance with its environmental licences and other approvals.

4.7 FORESTRY CORPORATION OF NSW – NORTHERN SOFTWOOD REGION

Forestry Corporation of NSW noted they do not have any comments to provide in relation to the modification.

4.8 HERITAGE NSW

Heritage NSW is satisfied that the conclusions and recommendations provided in Appendix D, are adequate and appropriate for the Aboriginal cultural heritage sites and values associated with the proposed modification. Heritage NSW has no additional comments in the relation to the proposed modification proceeding.

4.9 LITHGOW CITY COUNCIL

Council considers the Environmental Assessment adequately highlights the relevant issues and has no objection to the project subject to Council's original conditions remaining on the consent.

4.10 MINING, EXPLORATION AND GEOSCIENCE

MEG is supportive of the Modification recognising that it will assist in securing water supply to existing mining operations and result in improvements to the quality of water discharged to Wangcol Creek.

4.11 NSW RESOURCES REGULATOR

The NSW Resources Regulator have assessed the Modification Report and have no issues of concern that require a specific response. No specific Environmental Assessment Requirements for this modification have been issued.

The Resources Regulator requests an opportunity to review any amended or additional documentation lodged by the proponent that affects rehabilitation outcomes.

The Resources Regulator also requests the opportunity to review any draft conditions of development consent prior to them being finalised.

4.12 TRANSPORT FOR NSW

TfNSW requests the following additional information to be able to continue the TfNSW assessment of the modification.

4.12.1 Coinciding Timeframe

Issue

Clarification is required as to whether the McPhillamys Gold Mine pipeline and the proposed work associated with Modification 4 will have a coinciding timeframe for construction.

Response

The McPhillamys Gold Project is expected to be in operation anywhere between 2024 and 2027, pending its approval.

Whilst WCS does not have direct insight into the proposed construction program for McPhillamys Gold Project, ongoing consultation with Regis has indicated they have an aggressive 9 month construction program proposed for their 90 km pipeline route.

Regis have also nominated multiple work fronts for their 90 km pipeline, which will include a section through SCSS. WCS will be in regular communication with Regis and continue to work collaboratively to ensure there is limited (or non-existent) overlap in the construction efforts.

4.12.2 Traffic Volumes

Issue

The traffic volumes provided for the AM/PM peak associated with the modification do not account for the cumulative light vehicle and heavy vehicle peaks for the existing operation of the Springvale Coal Mine or the peaks that will be associated with the construction of the McPhillamys Gold Mine Pipeline.

Response

WCS will be in regular communication with Regis and continue to work collaboratively to ensure there is limited (or non-existent) overlap in the construction efforts.

In relation to Springvale Coal Mine traffic, the peak construction workforce is anticipated to be 22 employees with an average of 15 employees. The majority of additional labour required for construction will be contractors who are currently already accessing and working at the existing operations. These workers will be relocated from operations to the construction areas and hence will not increase the peak workforce numbers cumulatively. There will be no increase in the operational workforce at SCSS as part of this Modification.

As discussed above, the construction of the McPhillamys Gold Mine Pipeline is not anticipated to directly coincide with the construction associated with this Modification. Furthermore, as concluded in the *McPhillamys Gold Project Environmental Impact Statement* (EMM, 2019), there will be no significant impacts during construction on the operation or capacity of key regional, urban, local or unsealed roads and intersections providing access to each of the pipeline development construction sites.

4.12.3 Existing Intersection Treatments

Issue

An assessment of the capacity of the existing intersection treatments is required for the Springvale Coal Services access and is required to take into consideration the coinciding peaks and associated cumulative traffic generation (light and heavy vehicles) for the operational traffic associated with the existing Springvale Coal Mine, the construction of the McPhillamys Gold Pipeline and the proposed Western Coal Services Modification 4.

Response

The Existing conditions and assessment of traffic on the Castlereagh highway was discussed in Section 3 of the Traffic Impact Assessment (TIA) completed for the Modification (Appendix F of the Modification Report). This would account for the existing Springvale Coal Mine related traffic. Furthermore, as discussed above,

construction associated with this modification is not expected to coincide with construction of McPhillamys Gold Project.

As explained in **Section 4.12.2**, construction activities associated with the Modification will primarily be undertaken by the members of the existing operational workforce. Given that there will be an immaterial increase in movements to and from the site, the Modification will not affect intersection performance.

Queuing of construction related traffic is not expected and will be managed through the Construction Environmental Management Plan.

4.12.4 Austroads Assessment

Issue

An assessment of the Austroads warrants (see Figure 3.25 of Part 6 Guide to Traffic Management) is required and must be based on the cumulative traffic generation at the AM/PM peaks of the McPhillamys Gold Mine pipeline, the existing operation of the Springvale Coal Mine and the proposed Western Coal Services Modification 4 is required. The outcome of this assessment and any potential changes to the intersection treatments and any proposed strategic designs are required to be provided as a part of the additional information.

Response

As discussed above, the Modification will not affect intersection performance and therefore an assessment for warrants for turn treatments is not deemed necessary.

4.12.5 AM/PM Peaks

Issue

The AM/PM peaks for construction traffic have not been provided as a part of the TIA. The TIA is to be revised to clarify what the AM/PM peaks for construction of Modification 4 and whether the AM/PM peaks will coincide with the AM/PM peaks for the Castlereagh Highway.

Response

The AM/ PM peaks for construction traffic were provided and assessed in the TIA completed for the Modification (refer to Table 4.1 in the TIA, Appendix F of the Modification Report).

In reference to the Castlereagh Highway:

- AM Peak of 6 am to 7 pm:
 - All Construction Light Vehicles (LV's) would be expected to turn into site during 6 am-7 am (maximum 14 per day for that singular peak hour);
 - All Heavy vehicle (delivery) would be expected to attend site from 7 am onwards (maximum of 12 per day in any given construction phase/ area);
 - All Heavy vehicle (construction) would be expected to attend site from 7 am onwards (maximum of 11 in any given construction phase/area).
- PM Peak: 3:45 to 4:45 pm:
 - Most Construction LV's would be expected to leave site after 5 pm (10 hour construction day);
 - All Heavy vehicle (delivery) would leave site before midday, in a staggered fashion, outside of any Peaks;

- All Heavy vehicle (construction) would leave site by low loader float, at the end of the construction phase (unless they remain on site for proceeding phases), which would likely leave in a staggered manner during the day across a number of days. As such this is unlikely to impact peak periods.

It is also noted, however, that:

- Not all construction vehicles would mobilise on any given single day; and
- Once heavy construction vehicles are mobilised, they will likely remain on site for the duration of that construction phase/area.

Furthermore, as discussed in **Section 4.12.2**, the construction workforce is expected to transition from the onsite contract labour resulting in negligible increase in manning and light vehicles accessing the site.

4.12.6 AUR Capacity and Safety

Issue

Consideration should be given to the capacity and safety of the AUR at the intersection of the Springvale Coal Services Site on the Castlereagh Highway in relation to coinciding construction work occurring as a part of the proposed Western Coal Services Modification 4 and the McPhillamys Gold Mine Pipeline project (this needs to be considered if there will be coinciding construction periods with coinciding traffic peaks).

Response

The Mod 4 construction program has been scheduled to level the traffic impact and onsite manning numbers, by staggering works over a 23 month period. As concluded in the TIA, the existing site access intersection configuration incorporates AUL and AUR turn treatments. The low volumes of hourly or daily construction volumes associated with the proposed modification are unlikely to cause any safety, delay or capacity issues at this intersection.

The interface with the construction of McPhillamys interface is discussed in **Section 4.12.1**.

4.12.7 Review of TIA

Issue

Review of the TIA in relation to Condition 21 of the existing Springvale Coal Services Access SSD-5594.

Response

The Springvale Coal Services SSD-5594 is referring to the approval for the Springvale Mine Extension Project and is therefore not considered relevant to this modification.

4.13 WATER NSW

WaterNSW strongly supports the proposal for water transfer and management as part of this modification.

WaterNSW requests that the Department requires updating the following plans, in consultation with WaterNSW, as part of the modification approval including:

- Construction Environmental Management Plan and Water Management Plan for the Western Coal Services site that detail soil and water management measures during the construction and operation of the site in accordance with *Managing Urban Stormwater: Soils and Construction – Volume 1* (Landcom 2004) and *Managing Urban Stormwater: Soils and Construction – Volume 2E Mines and Quarries* (DECC 2008).
- Other relevant Centennial Coal management plans including the Regional Water Management Plan and the Upper Cocks River Action and Monitoring Plan.

WaterNSW requests to remain as a stakeholder for the proposal and receive any updates to relevant plans. WaterNSW would appreciate having further opportunities to comment on the project as the assessment progresses.

Response

Noted.

5. UPDATED MODIFICATION JUSTIFICATION

A description of the need and justification for the proposed modification is provided below with regard to biophysical, social and economic factors; the principles of ecologically sustainable development (ESD); and the consistency of the proposed modification with the objects of the EP&A Act.

5.1 JUSTIFICATION

Springvale Coal continuously engages with stakeholders including Government Agencies, other businesses and the community. As part of this ongoing engagement, Springvale Coal has been discussing the management of water and land at SCSS with:

- EPA;
- Centennial Angus Place Pty Limited – operators of Angus Place Colliery;
- Energy Australia – operators of MPPS; and
- Regis – proponents for the McPhillamys Gold Mine project which proposes to use water from WCS via the SCSS/Regis Transfer System.

These discussions have identified opportunities to transfer water to and from other operations in the region.

Due to the connectivity of the local groundwater system and the existing surface water management system at SCSS, discharges through LDP001 are predominantly untreated groundwater. The discharge of untreated groundwater into Wangcol Creek as part of WCS standard operating practice is no longer supported by regulators or the community.

EPA issued Springvale Coal with a PRP in December 2020. The PRP required a preferred project report be lodged with EPA detailing the preferred option for managing water currently discharged through LDP001. The preferred project report was submitted in January 2021 and aligns with one of the primary objectives of the proposed modification (to reduce the volume and pollutant load of discharges to Wangcol Creek).

The proposed modification will:

- Address the requirements of the EPL 21229 PRP. The water and salt balance modelling predicts that the proposed modification will reduce the volume and frequency of LDP001 discharges to Wangcol Creek and result in a significant reduction in the pollutant load of discharges compared to existing conditions.
- Create a beneficial reuse for water generated at SCSS. The proposed modification will facilitate the transfer of water from SCSS to MPPS and, if constructed, the McPhillamys Gold Mine. The proposed modification will therefore reduce, and potentially at times remove, the need to discharge water from LDP001 to Wangcol Creek.
- Decrease the volume of runoff from Huon Gully to SHG1 and historical underground workings. The construction and operation of the Huon Clean Water Pond will intercept the clean catchment of Huon Gully upstream of SHG1 and transfer it to Wangcol Creek via the Lamberts Gully clean water diversion. This will also minimise the opportunity for localised groundwater recharge following rainfall.
- Facilitate the transfer of water from Angus Place Colliery to SCSS. Water from Angus Place Colliery is of a higher quality than water already available on-site at SCSS. Mixing this water on-site at SCSS will improve the quality of water discharged into Wangcol Creek.
- Facilitate the transfer of land back to Energy Australia. The proposed redesign of the on-site water management system will redirect dirty water at SCSS away from land managed by Energy Australia. Dirty water will instead be captured in DWP-A at SCSS and, where suitable, will be available for beneficial reuse on-site or export to MPPS or, if constructed, McPhillamys Gold Mine.

- Increase the capacity of the Washery Dam, allowing Springvale Coal to store, manage and reuse a greater volume of dirty water on-site and reduce the volume of water discharged off-site.
- Align the conditions of SSD-5579 with the requirements for rehabilitation prescribed by the Mining Amendment Regulation.

5.2 ALTERNATIVES

In consultation with EPA, Springvale Coal has been exploring options to reduce the discharge of untreated groundwater into Wangcol Creek as part of WCS standard operating practice since 2019. Alternatives to the proposed modification that have been considered are:

- Do nothing: The 'do nothing' alternative is continuation of WCS operations. Without the proposed modification, Springvale Coal will not be able to satisfy the requirements of the PRP. The benefits of the proposed modification, as outlined in Section 8.1 of the Modification Report, will not be realised.
- Reverse osmosis treatment and discharge of treated water through LDP001 to Wangcol Creek: This alternative would involve the construction and operation of a reverse osmosis water treatment plant on-site at SCSS to treat water prior to discharge via LDP001. This alternative would create an additional waste stream (i.e. concentrated brine) and would present significant ongoing issues in terms of appropriate waste disposal.
- Transfer water to Angus Place Colliery: This alternative would involve the transfer of water from LDP001 to Angus Place Colliery, from where it would be transferred to SWTP. Water from LDP001 would form part of the total volume of water treated and reused as part of the ongoing operation of SWTP. This alternative would require significant changes to SWTP.
- Treatment using brine concentrators: This alternative would involve the transfer of water from SCSS to brine concentrator units (either existing or new systems). A new system would be cost prohibitive and the existing system is constrained in capacity.

5.3 ECOLOGICAL SUSTAINABLE DEVELOPMENT

The principles of ESD, for the purposes of the EP&A Act, are provided in Section 193 of Division 5 of Part 8 of the EP&A Regulation 2021. The four principles of ESD are:

- Precautionary principle – the precautionary principle states that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- Inter-generational equity – the principle of inter-generational equity is that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- Conservation of biological diversity and of ecological integrity – the conservation of biological diversity and ecological integrity should be a fundamental consideration; and
- Improved valuation, pricing and incentive mechanisms – improved valuation, pricing and incentive mechanisms should be included in the valuation of assets and services.

The overall objectives of ESD are to use, conserve and enhance natural resources. This ensures that ecological processes are maintained facilitating improved quality of life, now and into the future. Springvale Coal is committed to the principles of ESD and understands that biophysical, social and economic objectives are interdependent. Springvale Coal acknowledges that a well-designed and effectively managed operation will avoid significant and/or costly environmental impacts or degradation.

The proposed amendments to the water management system at SCSS have been designed to avoid impacts where possible. Where impacts are unavoidable, the proposed works have been designed to reduce the impacts to a level which is as low as is reasonably practicable. Appropriate management measures have been identified to mitigate any residual impacts from the proposed modification.

Consideration has been given to appropriately identifying, avoiding, mitigating and managing environmental risks. This demonstrates environmental due diligence and will provide for ongoing and adaptive monitoring and management of WCS in line with the principles of ESD outlined in the following sections.

5.3.1 Precautionary Principle

This modification report has assessed the potential impacts of the proposed modification on biophysical, social and economic factors based on on-site monitoring, historical data, modelling and surveys. This has included comparing the impacts of approved operations at SCSS with the potential impacts of the proposed modification. The assessment has confirmed with certainty that the modification proposed will not cause or threaten any serious or irreversible environmental damage.

Where existing management controls and mitigation strategies are not already in place to monitor, mitigate and/or manage the potential impacts of the proposed modification, additional safeguards have been proposed. These will be included in the CEMP and implemented during construction.

5.3.2 Inter-generational Equity

Springvale Coal undertake ongoing environmental monitoring with mitigation measures to provide effective environmental management across its existing operations. This management is provided through planning, communication, documentation, review and feedback. These environmental management measures ensure that the health, diversity and productivity of the environment is maintained or enhanced for future generations.

The proposed modification will reduce the volume, frequency and pollutant load of LDP001 discharges to Wangcol Creek, which will improve the receiving environment for current and future generations.

5.3.3 Conservation of Biological Diversity and Maintenance of Ecological Integrity

The potential environmental impacts of the proposed modification and the existing and/or additional measures to ameliorate these potential impacts are detailed in the Modification Report.

The proposed modification will result in the clearing of 15.18 ha of native vegetation. A total of 376 ecosystem credits and 72 species credits are required to offset the impacts of the proposed modification. These credit requirements will be satisfied in accordance with the NSW Biodiversity Offset Scheme to ensure the conservation of biological diversity and ecological integrity.

5.3.4 Improved Valuation and Pricing of Environmental Resources

The proposed modification will create a beneficial reuse for water generated at SCSS. The proposed modification will facilitate the transfer of water from SCSS to MPPS and, if constructed, the McPhillamys Gold Mine.

The construction of DWP-B and increased capacity of the Washery Dam will also allow Springvale Coal to store, manage and reuse a greater volume of dirty water on-site and reduce the volume of this water discharged off-site.

The infrastructure costs associated with the proposed modification to SSD-5579 will be met by the proponent.

5.4 CONCLUSION

The proposed modification has been designed to avoid and minimise adverse biophysical, social and economic impacts. Appropriate management measures have been identified to mitigate any residual impacts from the proposed modification. These management measures will help to ensure construction activities will have minimal additional environmental impacts when compared with SCSS's existing operations.

The proposed modification is considered to be consistent with the relevant objects of the EP&A Act, including the principles of ESD, and will not change the nature of the development originally approved.

The primary objective of the proposed modification is to address the requirements of the EPL 21229 Pollution Reduction Program by reducing the volume, frequency and pollutant load of LDP001 discharges to Wangcol Creek. Water and salt balance modelling illustrates that this can be achieved.

Environmental management will continue in accordance with SSD-5579 and EPL 21229, approved plans and other elements of the consent. Where required, additional safeguards have been proposed and these will be included in the CEMP and implemented during construction.

6. REVISED MANAGEMENT AND MONITORING SUMMARY

Table 3 provides a consolidated summary of the additional management and monitoring commitments resulting from this Submissions Report.

Table 3 Submissions Report Mitigation and Monitoring Commitments

Ref	Commitment	Section
Traffic		
1.	Further consult with Regis to ensure that construction works are managed so as not to cause any material cumulative traffic impacts during the construction of both projects.	Section 4.12.1

7. REFERENCES

- RPS Aquaterra (2013), *Centennial Western Coal Services Project Groundwater Assessment*.
- *WCS Environmental Impact Statement*, RPS, 2013.
- *The Western Coal Services Project Modification Report for Modification to SSD-5579*, EMM, December 2021.
- *Endeavour Energy Standard Conditions for Development Applications and Planning Proposals*, Endeavour Energy, December 2021.
- *Western Coal Services Mining Operations Plan, 1st January 2018 – 31 December 2024, MOP Amendment A*, Centennial Coal, 2020.

8. ABBREVIATIONS

Abbreviation	Meaning
AEP	Average Exceedance Probability
APZ	Asset protection zone
AQMP	Air Quality Management Plan
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
DP&E	Department of Planning and Environment
EP&A Act	<i>Environmental Planning & Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>
EPA	<i>Environmental Protection Authority</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence
ESD	Ecologically sustainable development
FTE	Full-time equivalent
LGA	Local Government Area
MIA	Mine infrastructure area
Mining Act	Mining Act 1992
MOP	Mining Operations Plan
Mining SEPP	<i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>
ML	Mining Lease
MSD	Mine subsidence district
Mt	Million tonnes
Mtpa	Million tonnes per annum
NMP	Noise Management Plan
NPW Act	<i>National Parks and Wildlife Act 1974</i>
OEI	Overburden emplacement area
PBFP	<i>Planning for Bush Fire Protection (NSW Rural Fire Service, 2019)</i>
PMF	Probable Maximum Flood
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Roads Act	Roads Act 1993
ROM	Run of Mine
SPL	Sound Power Level
Springvale Coal	Springvale Coal Pty Limited

Abbreviation	Meaning
SCSS	Springvale Coal Services Site
The Modification	Western Coal Services Modification 4
TSP	Total Suspended Particulate
VPA	Voluntary Planning Agreement
WCS	Western Coal Services
WM Act	<i>Water Management Act 2000</i>

APPENDIX A
ADDITIONAL INFORMATION FOR
BIODIVERSITY, CONSERVATION
AND SCIENCE DIRECTORATE

Our ref: 148221

Unit 2A, 45 Fitzroy Street
Carrington NSW 2294
T +61 2 4940 4200

Date: 21 February 2022

Dear Russell,

MOD 4 - Water transfer and management system SSD-5579-Mod-4 - Request for Additional Information

Please find response to Request for Additional Information regarding WCS MOD 4 below.

1. *The biodiversity credit report must be finalised and submitted in the BAM calculator*

The BAM credit report for WCS MOD 4 was finalised and submitted in the BAM Calculator on 1/12/21 (refer to screenshots below).

2. *The BDAR must include the finalised biodiversity credit report*

A version of the credit report generated prior to finalisation was incorrectly added into the lodged BDAR (and hence the confusion regarding this matter). To rectify this, the finalised credit report is now provided in the BDAR attached (this was the only change made to the document).

3. *A re-certified BDAR must be provided within 14 days of the date that the credit report is finalised*

The BDAR was certified on 26/11/21, which was within 14 days of the date of that the credit report was finalised (it was finalised on 1/12/21). Revised BDAR provided with finalised BAM Credit Summary Report displaying Date Finalized (noting issue raised in point 2. above).

Regarding **1. to 3.** above, please see screenshots on BOAMs that indicate the status of the case as submitted to Consent Authority on 1/12/21:

58 00027298

Hayden John Beck

[WCS - SSD 5594 \(MOD 4\) - BDAR](#)

Submitted to C... 17/08/2021 5:01 PM

Our ref: 148221



Case
00027298

[Edit](#) [Create Assessment](#) [Submit to Consent Authority](#) [▼](#)

Type
Development

Status
Submitted to Consent Authority for Review

Additional Information

Subject	Status ⓘ
WCS - SSD 5594 (MOD 4) - BDAR	Submitted to Consent Authority for Review
Description	Contact Person on Register
Contact Name	Pending credits to appear on Register? ⓘ
Hayden John Beck	<input type="checkbox"/>
DA Number	Last Updated by Assessor ⓘ
Credit Outcome	1/12/2021 6:14 PM
	Case Party Definitions
	Click

Credit Recording (5)

Credit ...	Credit ...	Credit T...	Commo...
CR-10...		Ecosyst...	▼
CR-10...		Ecosyst...	▼
CR-10...		Ecosyst...	▼
CR-10...		Species	Black G... ▼
CR-10...		Species	Purple C... ▼

[View All](#)

Case Parties (2) [New](#)

Party ID	Full Name	Role	Account
CP-26...	Hayden ...	Assessor	Hayden John Beck ▼
CP-29...	James ...	Landhol...	SPRINGV ALE COAL PTY LIMITED ▼

[View All](#)

Additional Information

Subject	* Status ⓘ
WCS - SSD 5594 (MOD 4) - BDAR	Submitted to Consent Authority for Review ▼
Description	Contact Person on Register
Contact Name	Pending credits to appear on Register? ⓘ
Hayden John Beck	<input type="checkbox"/>
DA Number	Last Updated by Assessor ⓘ
Credit Outcome	1/12/2021 6:14 PM
	Case Party Definitions
	Click

[Cancel](#)

[Save](#)

Our ref: 148221

4. All spatial files relating to the BDAR must be provided in ArcGIS compatible format (shapefiles)

ArcGIS compatible spatial files provided with this response.

5. Plot data must be provided (Appendix G of the BDAR states, Note: Data was collected digitally using Survey 123. A macro-enabled datasheet (allowing enquiry of species composition, structure and plot functionality) will be provided upon request.)

Spread-sheet provided as requested.

Yours sincerely,
for RPS Australia East Pty Ltd

A handwritten signature in black ink, appearing to read 'H. Beck' with a stylized flourish at the end.

Dr Hayden Beck
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