

ATTACHMENT 6

Rehabilitation Review

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A6 REHABILITATION REVIEW

A6.1 INTRODUCTION

A6.1.1 Purpose of this Document

This document has been prepared by Yancoal Australia Ltd (Yancoal) to describe the interaction between rehabilitation of the Stratford Mining Complex (SMC) and the Stratford Renewable Energy Hub (SREH) (the Project), changes to SMC rehabilitation outcomes to support the proposed beneficial post-mining land use (i.e. the Project), and rehabilitation and decommissioning of the Project.

In addition, this document has been prepared to address the Project's rehabilitation-related assessment requirements detailed in the Secretary's Environmental Assessment Requirements (SEARs) issued by the New South Wales (NSW) Department of Planning, Housing and Infrastructure (DPHI).

A6.1.2 Structure of this Attachment

The remainder of this attachment is structured as follows:

- Section A6.2: Outlines the strategic context for the Project with respect to post-mining land uses.
- Section A6.3: Details Stratford Coal Pty Ltd's (SCPL's) existing rehabilitation obligations with respect to the SMC.
- Section A6.4: Outlines the SEARs issued by the DPHI for the Project (as they relate to rehabilitation).
- Section A6.5: Describes the existing status of rehabilitation activities at the SMC.
- Section A6.6: Describes the extent of spatial overlap between the Project and the SMC.
- Section A6.7: Details the existing SMC infrastructure to be used by the Project.
- Section A6.8: Describes the rehabilitation activities at the SMC that would be required to facilitate the development of the Project.
- Section A6.9: Describes the implications of the Project on rehabilitation of the SMC.

Section A6.10: Describes the changes that would be required to SMC rehabilitation outcomes and equivalent Project commitments.

Section A6.11: Details the rehabilitation and decommissioning of the Project.

Section A6.12: Lists the references cited.

A6.2 STRATEGIC CONTEXT TO POST-MINING LAND USE

A6.2.1 Background

The Project presents an opportunity to beneficially reuse land disturbed by the SMC and economically contribute to the Gloucester region after the completion of mining operations.

If approved, the Project would be a model of beneficial post-mining land use.

The NSW Government has outlined its intention to promote and facilitate economic development in regional NSW via alternative post-mining land uses in various policy documents.

This section describes the strategic context for re-utilising land disturbed by mining activities for alternative post-mining land uses, as per guidance material released by NSW government agencies.

A6.2.2 Parliament to Explore Productive Uses of Land After Mines Close

In May 2024, the *Inquiry into beneficial and productive post-mining land use* (the Inquiry) was established. The terms of reference for the Inquiry were referred to by the NSW Minister for Natural Resources.

The terms of reference for the Inquiry relevantly state (emphasis added):

That the Standing Committee on State Development inquire into and report on beneficial and productive post-mining land use, and in particular:

- (a) *the benefits of having multiple successive land uses including the positive benefits for local communities and the economy, business, industry, and the broader state*
- (b) **changes in land use potential and demand in established or traditional mining areas, particularly those generated by the decarbonised economy, renewable technology, manufacturing, defence, skills, and training**

(c) *opportunities for investment and growth in training and skills in established or traditional mining areas, including:*

- (i) *the need to reskill and or retrain current workforces*
- (ii) *the impact and effectiveness of existing and new education, training, and skills providers for mining communities*

(d) opportunities to encourage innovative post-mining land uses including:

- (i) *the planning and implementation of essential supporting infrastructure for future site use*
- (ii) the development of solar farms, pumped hydro, and other clean energy industries**
- (iii) *the compatibility of post mining land sites with commercial projects*
- (iv) *the potential of unlocking surrounding land for residential dwellings, amenities, environmental and educational facilities*
- (v) *potential exploration of former and legacy mining sites with modern mining technology to explore deposits in tailings and closed sites*
- (vi) *the development of sites for use for advanced manufacturing, commercial and industrial use*

...

The Project is entirely relevant to the Inquiry as it:

- proposes a beneficial, productive and innovative use of land disturbed by the SMC;
- would contribute to a decarbonised economy; and
- would generate renewable energy.

The Project would likely be a case study for beneficial and productive post-mining land uses, and how post-mining proposals could be accelerated and facilitated by NSW Government.

A6.2.3 Strategic Statement on Coal Exploration and Mining in NSW

The *Strategic Statement on Coal Exploration and Mining in NSW* (the Strategic Statement) was released by the Department of Regional NSW in 2020.

Key actions in the Strategic Statement (Department of Regional NSW, 2020) include:

- facilitating the beneficial uses of coal mining land once mining has ended; and
- supporting the diversification of coal-reliant regional economies, including developing and implementing location-specific plans to diversify the regional economies that are heavily dependent on coal mining.

The Project is entirely consistent with the intent of the Strategic Statement in regard to the beneficial reuse of the SMC land. Associated economic opportunities from the Project would continue to be provided to the region after the completion of mining operations.

A6.2.4 Hunter Regional Plan 2041

The *Hunter Regional Plan 2041* (Department of Planning and Environment [DPE], 2022) provides nine objectives for the region, including to “*Diversify the Hunter’s mining, energy and industrial capacity*”.

A priority of the *Hunter Regional Plan 2041* (DPE, 2022) is to “*Plan for alternative land uses for former mine and power station sites*” to “*create an economic legacy*” for the region.

More specifically, the *Hunter Regional Plan 2041* (DPE, 2022) states (emphasis added):

*The **Stratford and Duralie mines near Gloucester** provide potential re-use opportunities over the 20-year period of this plan. Existing hard stand areas, vehicular access and transmission lines **could support renewable energy** and batteries.*

The *Hunter Regional Plan 2041* (DPE, 2022) identified the opportunity for the existing SMC and Duralie Coal Mine to be repurposed to support the transition to renewable energy. In this regard, the development of the Project is aligned with this strategy, being able to continue attracting investment in the region after the closure of the SMC and Duralie Coal Mine.

A6.2.5 Practical Guide: Post Mining Land Use

In June 2023, the NSW Government released the *Practical guide: Post mining land use* (Department of Regional NSW, 2023), designed to “assist and encourage mining lease holders to explore opportunities for alternative and innovate PMLUs for mine sites”. The *Practical guide: Post-mining land use* (Department of Regional NSW, 2023) identifies energy generation as a key opportunity for alternative post-mining land uses.

In addition, the *Practical guide: Post mining land use* (Department of Regional NSW, 2023) states:

The NSW Government is committed to promoting economic development in regional NSW, including attracting new investment, creating jobs and ensuring a high quality of life for communities. Areas disturbed by mining provide significant opportunities for economic development and diversification.

The Project provides an opportunity for economic development and diversification following the cessation of mining operations at the SMC through attracting new investment and creating new job opportunities.

A6.2.6 Guideline: Achieving Rehabilitation Completion (Sign-off)

The *Guideline: Achieving Rehabilitation Completion (Sign-off)* (Resources Regulator, 2021a) states (emphasis added):

In some circumstances, lease holders may decide that a change to the approved final land use may be appropriate. Changes should be considered in the context of beneficial use of the land rather than unachievable rehabilitation and final land use outcomes. Examples include residential development, renewable energy infrastructure (e.g. pumped hydro and solar farms) or other non-rural land uses. In some circumstances, the retention of infrastructure (e.g. workshop buildings) for ongoing use post-closure may require a change to the final land use.

Any changes to the approved final land use will require either a new development consent or a modification to an existing consent from the relevant consent authority under the Environmental Planning and Assessment Act 1979.

The process of obtaining development consent must be completed prior to the rehabilitation acceptance application process and will require a re-establishment of rehabilitation outcomes. Lease holders will be required to reassess the risks associated with the proposed land use change. For example, a change in land use to accommodate residential development will require a consideration of risks that may not have previously required consideration, such as geotechnical stability of the rehabilitated land to support residential foundations.

*Lease holders considering changes to final land use are encouraged to consult early with both us and the relevant consent authority. **We will only accept a change to the final land use once there is certainty that the proposed land use is achievable and will be implemented.***

As per the quote above, a new State Significant Project (e.g. this Project) proposed at a mine site would result in a change to land use outcomes for the existing mine.

Any changes to the land use outcomes for the SMC would therefore require a level of certainty for the Resources Regulator that the alternate land use (i.e. the Project) is achievable and implementable.

In the context of the Project, a change to the land use outcomes for the SMC is proposed. The Project would need to be approved under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and in force prior to seeking a change to the final land use and rehabilitation outcomes for the SMC.

A6.3 EXISTING SMC OBLIGATIONS

A6.3.1 Background

SCPL's statutory obligations for the SMC are contained in:

- the conditions of Development Consent SSD-4966;
- the conditions of Commonwealth Approval (EPBC 2011/6176);
- Environment Protection Licence (EPL) 5161;
- relevant licences and permits, including conditions attached to the SMC Mining Leases (MLs) and Exploration Authorisations; and
- other relevant legislation.

Details of the date of grant and duration of Development Consent SSD-4966, authorisations and licences issued by the relevant government agencies for the SMC are provided in Table A6-1.

Obligations relevant to rehabilitation of the SMC are described below.

Table A6-1
Overview of SMC Current Development Consents, Leases and Licences

Relevant Authority	Instrument	Approval Licence	Date of Grant	Duration of Approval
DPHI	Development Consent	Development Consent SSD-4966 (as modified)	29/05/2015	The applicant may carry out mining operations on the site until 31 December 2025. The applicant may carry out rehabilitation activities until rehabilitation of the SMC is completed. Development Consent SSD-4966 continues to apply until it is surrendered.
Resources Regulator	ML	ML 1360	Granted: 21/12/1994	21 December 2036
		ML 1409	Granted: 07/01/1997	7 January 2038
		ML 1447	Granted: 01/04/1999	1 April 2040
		ML 1521	Granted: 24/09/2002	23 September 2044
		ML 1528	Granted: 20/01/2003	19 January 2045
		ML 1538	Granted: 25/06/2003	24 June 2045
		ML 1577	Granted: 01/03/2006	28 February 2027
		ML 1733	Granted: 08/04/2016	8 April 2037
		ML 1787	Granted: 05/06/2019	5 June 2040
	Exploration Authorisation (AUTH)	AUTH 311	14/10/2013	17 September 2024
		AUTH 315	14/10/2013	18 January 2027
Environment Protection Authority	EPL	EPL 5161 (as modified)	09/01/2001	Until licence is surrendered, suspended or revoked. The licence is subject to review every three years.
Commonwealth Department Climate Change, Energy, the Environment and Water	Commonwealth Approval	EPBC 2011/6176	29/01/2016	30 November 2030.
DPE-Water	Monitoring and test bore licences	Various	Various	Various.
	Water Approval Licence	WAL 41534	18/04/2018	Perpetuity.
		WAL 41535	14/12/2017	Perpetuity.
		WAL 41536	14/12/2017	Perpetuity.
		WAL 41537	22/01/2018	Perpetuity.
		WAL 41538	20/01/2018	Perpetuity.

A6.3.2 Development Consent SSD-4966

Mining Operations

Development Consent SSD-4966 for the Stratford Extension Project (SEP) was granted on 29 May 2015 under Part 4 of the EP&A Act, and mining activities approved under the SMC Development Consent (SSD-4966) commenced on 4 April 2018. All prior development consents relating to the SMC were relinquished upon commencement of mining operations associated with Development Consent SSD-4966.

A total of approximately 885 hectares (ha) of disturbance was approved at the SMC in accordance with Development Consent SSD-4966.

Whilst Condition 5, Schedule 2 of the SMC's Development Consent (SSD-4966) authorises mining operations to be carried at the SMC until 31 December 2025, mining operations at the SMC are forecast to cease in 2024.

Whilst approved, mining operations did not commence in the Roseville West Pit Extension and did not progress as far south as approved in the Stratford East Open Cut (refer Figure A6-1).

Accordingly, there are areas approved for disturbance (and offset) that have not been disturbed and, consequently, not all areas expected to be rehabilitated are available for rehabilitation (as they were not disturbed).

This is material as the SMC has specific final land use area requirements conditioned in Development Consent SSD-4966, including:

- 350 ha of native ecosystem rehabilitation; and
- 300 ha of agricultural (grazing) land.

These requirements are detailed further below.

Rehabilitation Obligations

Conditions 53 and 54, Schedule 3 of Development Consent SSD-4966 detail the key rehabilitation objectives and requirements for progressive rehabilitation at the site, respectively. Conditions 53 and 54, Schedule 3 of Development Consent SSD-4966 are provided in Table A6-2.

Appendix 8 of Development Consent SSD-4966 provides the conceptual final landform for the SMC and is provided as Plate A6-1.

As described above, mining operations at the SMC have not been undertaken to the maximum extent approved under Development Consent SSD-4966. Accordingly, the approved final landform and land use at the SMC is not achievable within the life of approved mining operations given not all land expected to be available for rehabilitation has been disturbed (approximately 155 ha).

Approved final land uses at the SMC depicted in Appendix 8 of Development Consent SSD-4966 have been refined as per the conditions of the MLs (refer Section A6.3.4) and are consistent with:

- agricultural – grazing;
- native ecosystem;
- final voids; and
- water storage areas (excluding final voids).

Biodiversity Offset Strategy

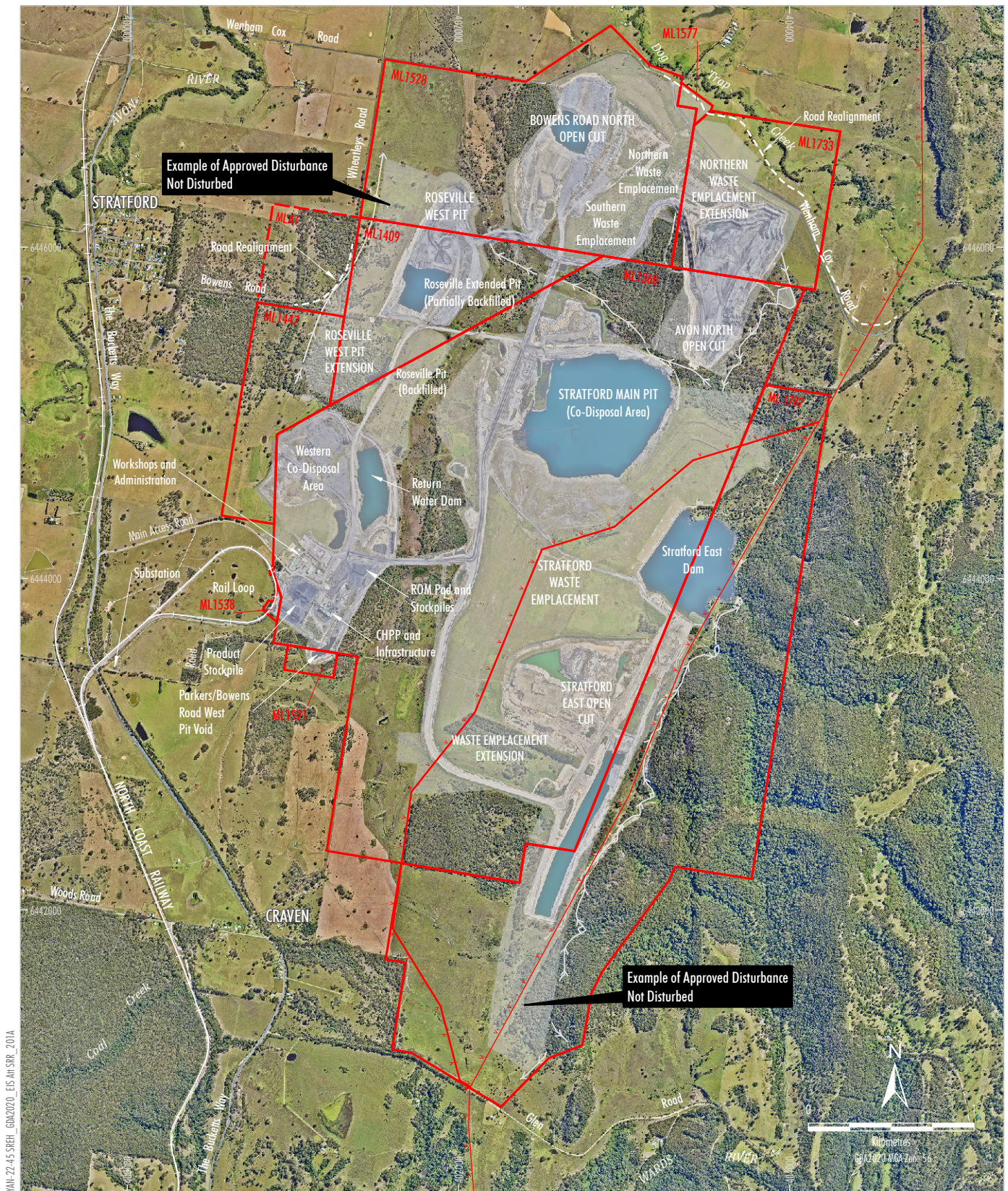
In accordance with Condition 33, Schedule 3 of Development Consent SSD-4966, SCPL is required to implement a Biodiversity Offset Strategy.

The Biodiversity Offset Strategy comprises:

- Biodiversity Offset Areas;
- Biodiversity Enhancement Areas; and
- Rehabilitation Areas.

A portion of the mine rehabilitation is required to achieve 350 ha of native vegetation, and this forms part of the Biodiversity Offset Strategy in Condition 33, Schedule 3 of the Development Consent SSD-4966.

Condition 33, Schedule 3 of Development Consent SSD-4966 is quoted in Table A6-2.



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- LEGEND**
- Mining Lease Boundary
 - Mining Lease Application Boundary*
 - Electricity Transmission Line
 - SMC Electricity Transmission Line Realignment
 - Approximate Extent of SMC Existing/Approved
 - Surface Development
 - Conceptual Up-Catchment Diversion

*MLA1 is a proposed future Mining Lease Application (MLA) area and has not yet been lodged.

Not yet Constructed

Source: NSW Spatial Services (2023); Yancoal (2023)



YANCOAL - STRATFORD RENEWABLE ENERGY HUB

Existing SMC

Figure A6-1

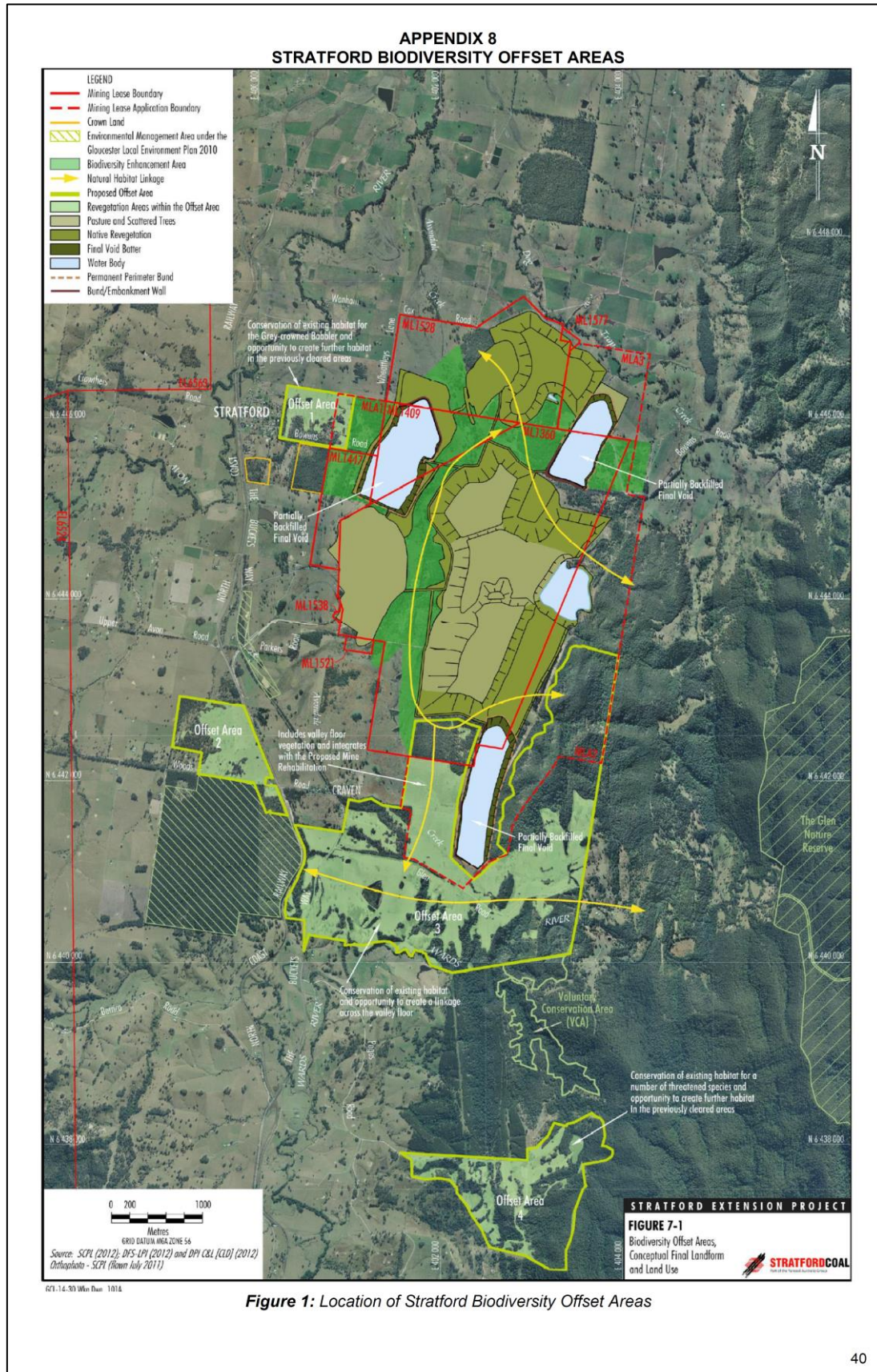
Table A6-2
Development Consent SSD-4966 Requirements Relating to Rehabilitation

Condition	Requirements																
Condition 33, Schedule 3	BIODIVERSITY Biodiversity Offset Strategy <i>The Applicant shall implement the biodiversity offset strategy described in the EIS, summarised in Table 9 and shown conceptually in Figure 1 in Appendix 8, to the satisfaction of the Secretary.</i> <i>Table 9: Summary of the biodiversity offset strategy</i> <table><tr><th>Area</th><th>Offset Type</th><th>Minimum Size (ha)</th></tr><tr><td>Biodiversity Offset Area, including Offset Areas 1, 2, 3 and 4</td><td>Existing vegetation to be enhanced and additional vegetation to be established.</td><td>935 Includes 490 ha of existing native vegetation.</td></tr><tr><td>Biodiversity Enhancement Area</td><td>Existing vegetation to be enhanced and additional vegetation to be established, including Cabbage Gum open forest within the Avondale Creek riparian area.</td><td>240</td></tr><tr><td>Rehabilitation Area</td><td>Native woodland vegetation communities to be re-established.</td><td>350</td></tr></table> <i>Note: For the purposes of this consent the vegetation community referred to in the EIS as Cabbage Gum open forest on flats of the North Coast or New England Tablelands is considered equivalent to Subtropical Coastal Rainforest of the NSW North Coast Bioregion EEC under the TSC Act.</i>	Area	Offset Type	Minimum Size (ha)	Biodiversity Offset Area, including Offset Areas 1, 2, 3 and 4	Existing vegetation to be enhanced and additional vegetation to be established.	935 Includes 490 ha of existing native vegetation.	Biodiversity Enhancement Area	Existing vegetation to be enhanced and additional vegetation to be established, including Cabbage Gum open forest within the Avondale Creek riparian area.	240	Rehabilitation Area	Native woodland vegetation communities to be re-established.	350				
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Rehabilitation Area	Native woodland vegetation communities to be re-established.	350															
Condition 53, Schedule 3	<i>The Applicant shall rehabilitate the site to the satisfaction of the Resources Regulator. This rehabilitation must be generally consistent with the proposed Rehabilitation Strategy described in the EIS (and depicted conceptually in Appendix 8) and comply with the objectives in Table 10.</i> <i>Table 10: Rehabilitation objectives</i> <table><tr><th>Feature</th><th>Objective</th></tr><tr><td>Mine site (as a whole)</td><td>Safe, stable and non-polluting Constructed landforms drain to the natural environment Minimise visual impact of final landforms as far as is reasonable and feasible and be sympathetic to the original Gloucester valley landform</td></tr><tr><td>Final voids</td><td>Minimise the size and depth of final voids so far as is reasonable and feasible Minimise the drainage catchment of final voids so far as is reasonable and feasible Minimise high wall instability risk so far as is reasonable and feasible The size and depth of final voids must be designed having regard to their function as long-term groundwater sinks, to maximise groundwater flows across back-filled pits to the void and to not be a source of saline groundwater for aquifers and streams Designed and constructed to ensure adequate freeboard to ensure no spillage under any foreseeable conditions Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood</td></tr><tr><td>Surface infrastructure</td><td>To be decommissioned and removed, unless the Deputy Secretary, Resources and Energy agrees otherwise</td></tr><tr><td>Agricultural land</td><td>Establish a minimum of 300 hectares of land with Class 4 agricultural suitability</td></tr><tr><td>Other land</td><td>Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising: - a wildlife corridor (shown as Biodiversity Enhancement Area in the figure in Appendix 8); - local native plant species; and - a landform consistent with the surrounding environment </td></tr><tr><td>Stratford and Glen heritage railway corridors</td><td>Road and transmission alignments to avoid heritage railway corridors Rehabilitation activities to avoid or minimise impacts</td></tr><tr><td>Community</td><td>Ensure public safety, with an emphasis on final voids Minimise the adverse socio-economic effects associated with mine closure</td></tr></table>	Feature	Objective	Mine site (as a whole)	Safe, stable and non-polluting Constructed landforms drain to the natural environment Minimise visual impact of final landforms as far as is reasonable and feasible and be sympathetic to the original Gloucester valley landform	Final voids	Minimise the size and depth of final voids so far as is reasonable and feasible Minimise the drainage catchment of final voids so far as is reasonable and feasible Minimise high wall instability risk so far as is reasonable and feasible The size and depth of final voids must be designed having regard to their function as long-term groundwater sinks, to maximise groundwater flows across back-filled pits to the void and to not be a source of saline groundwater for aquifers and streams Designed and constructed to ensure adequate freeboard to ensure no spillage under any foreseeable conditions Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood	Surface infrastructure	To be decommissioned and removed, unless the Deputy Secretary, Resources and Energy agrees otherwise	Agricultural land	Establish a minimum of 300 hectares of land with Class 4 agricultural suitability	Other land	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising: - a wildlife corridor (shown as Biodiversity Enhancement Area in the figure in Appendix 8); - local native plant species; and - a landform consistent with the surrounding environment	Stratford and Glen heritage railway corridors	Road and transmission alignments to avoid heritage railway corridors Rehabilitation activities to avoid or minimise impacts	Community	Ensure public safety, with an emphasis on final voids Minimise the adverse socio-economic effects associated with mine closure
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Table A6-2 (continued)
Development Consent SSD-4966 Requirements Relating to Rehabilitation

Condition	Requirements
Condition 54, Schedule 3	<i>The Applicant shall progressively rehabilitate the site, including the Western Co-disposal Area, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies must be employed where areas prone to dust generation are not subject to active mining operations but cannot yet be permanently rehabilitated.</i> <i>Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to further disturbance in future.</i>
Condition 55, Schedule 3	<i>The Applicant shall prepare and implement a Rehabilitation Management Plan to the satisfaction of the Resources Regulator. This plan must:</i> <i>(a) be prepared in consultation with the Department, DPIE Water, BCD, and GSC;</i> <i>(b) be submitted to the Resources Regulator for approval at least 3 months prior to the commencement of mining operations in the new mining areas; unless the Resources Regulator agrees otherwise;</i> <i>(c) be prepared in accordance with any relevant DRG guideline;</i> <i>(d) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;</i> <i>(e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);</i> <i>(f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform and final land use;</i> <i>(g) include interim rehabilitation where necessary to minimise the area exposed for dust generation;</i> <i>(h) include a program to monitor, independently audit and report on the effectiveness of the rehabilitation measures and progress against the detailed performance and completion criteria; and</i> <i>(i) build to the maximum extent practicable on the other management plans required under this consent.</i> <i>Note: The Biodiversity Management Plan and Rehabilitation Management Plan require substantial integration to achieve biodiversity objectives for the rehabilitated mine site.</i>

Plate A6-1
Development Consent SSD-4966 Conceptual Final Landform



A6.3.3 EPBC 2011/6176

EPBC 2011/6176 for the SEP was granted on 29 January 2016 under sections 130(1) and 133 of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Condition 1 of EPBC 2011/6176 relevantly provides:

1. *For the protection of listed threatened species and communities and / or water resources, the person taking the action must implement and comply with Conditions 3 to 33, 36, 39 and 53 to 55 of Schedule 3 to the Development Consent.*

Accordingly, Condition 1 of EPBC 2011/6176 endorses the rehabilitation obligations and biodiversity offset strategy provided for in Development Consent SSD-4966 (repeated in Table A6-2).

A6.3.4 Mining Leases

The NSW *Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) Regulation 2021* (the Regulation) enacted on 2 July 2021 prescribed new standard conditions within MLs relevant to the rehabilitation of land and water within MLs. The Regulation requires, among other things, leaseholders to prepare rehabilitation documents in accordance with the Resources Regulator's Form and Way documents and supplementary guidelines. The 'rehabilitation documents' required by the Regulation include:

- A Rehabilitation Management Plan.
- 'Rehabilitation Outcome Documents', including:
 - Final Landform and Rehabilitation Plan (FLRP).
 - Rehabilitation Objectives Statement.
 - Rehabilitation Completion Criteria Statement.
- A Forward Program and Annual Rehabilitation Report.

Rehabilitation Management Plan

The SMC Rehabilitation Management Plan (RMP) (SCPL, 2023) was prepared in accordance with clause 10, Schedule 8A of the Regulation.

The SMC RMP is available on the SMC website.

Final Landform and Rehabilitation Plan

The SMC FLRP is provided in the SMC RMP and portrays the final landform and final land uses for the land that has been disturbed by the SMC (SCPL, 2023).

In accordance with clause 12, Schedule 8A of the Regulation, FLRPs are required to be submitted to the Resources Regulator for approval.

On 22 August 2023, the Resources Regulator approved the SMC FLRP. The approved FLRP is provided as Plates A6-2 and A6-3.

The final landform depicted in the SMC FLRP (Plates A6-2 and A6-3) is generally consistent with the current landform, and differs from Development Consent SSD-4966 because the full extent of the approved SMC has not been mined by SCPL.

The types of final land uses depicted in the SMC FLRP are consistent with Development Consent SSD-4966 (Plates A6-1 and A6-2).

Rehabilitation Objectives Statement

The SMC Rehabilitation Objectives Statement relates to the rehabilitation of all land disturbed by the SMC and is provided in the SMC RMP (SCPL, 2023).

In accordance with clause 12, Schedule 8A of the Regulation, Rehabilitation Objectives Statements are required to be submitted to the Resources Regulator for approval.

On 22 August 2023, the Resources Regulator approved the SMC Rehabilitation Objectives Statement.

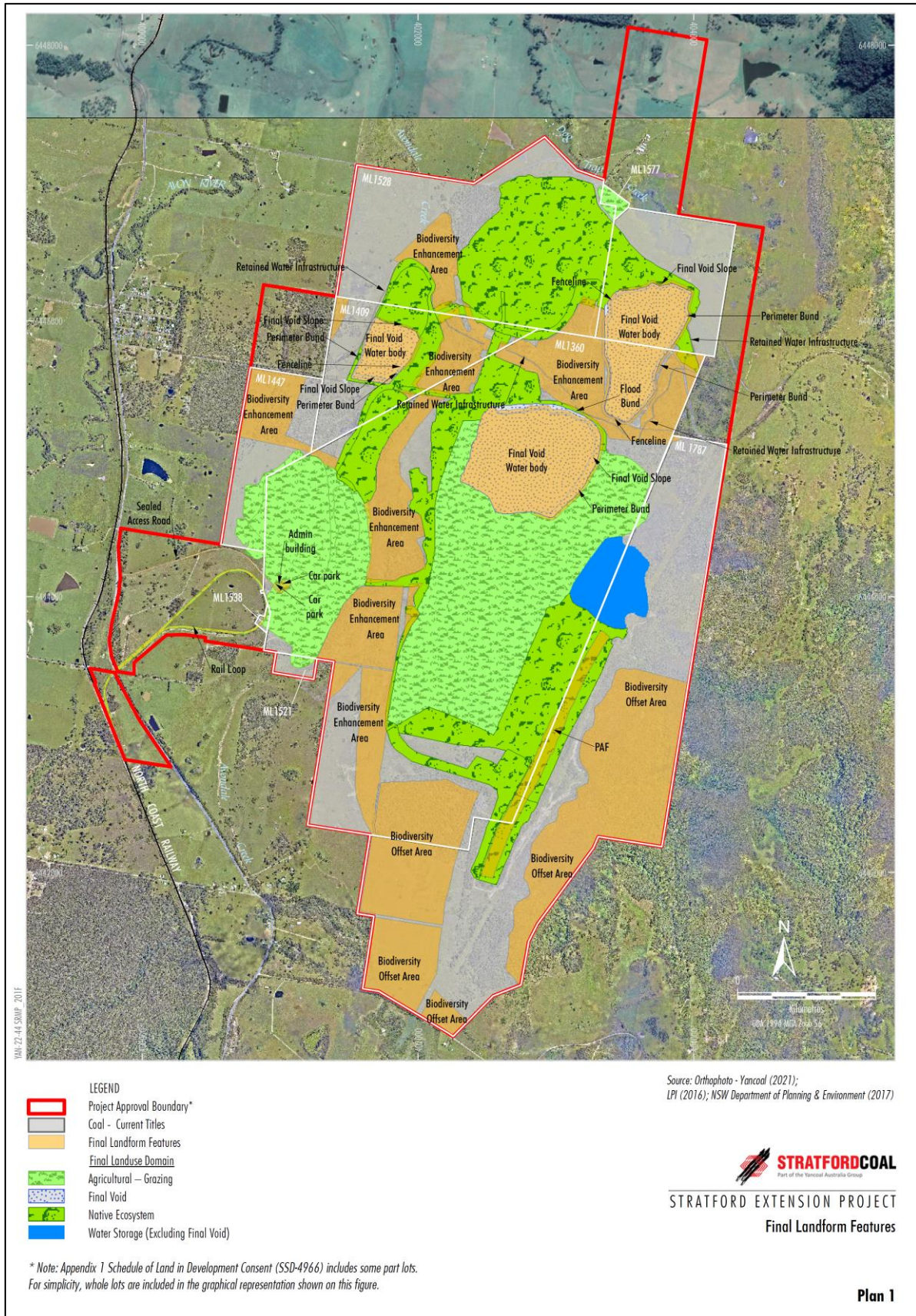
Rehabilitation Completion Criteria Statement

The proposed SMC rehabilitation completion criteria for each of the final land use and mining domains are specified in the SMC RMP (SCPL, 2023), and correspond with each of the objectives within the SMC Rehabilitation Objectives Statement.

Rehabilitation Completion Criteria Statements are intended to be submitted to the Resources Regulator for approval no later than three years before rehabilitation of the whole or part of a ML is proposed to be completed.

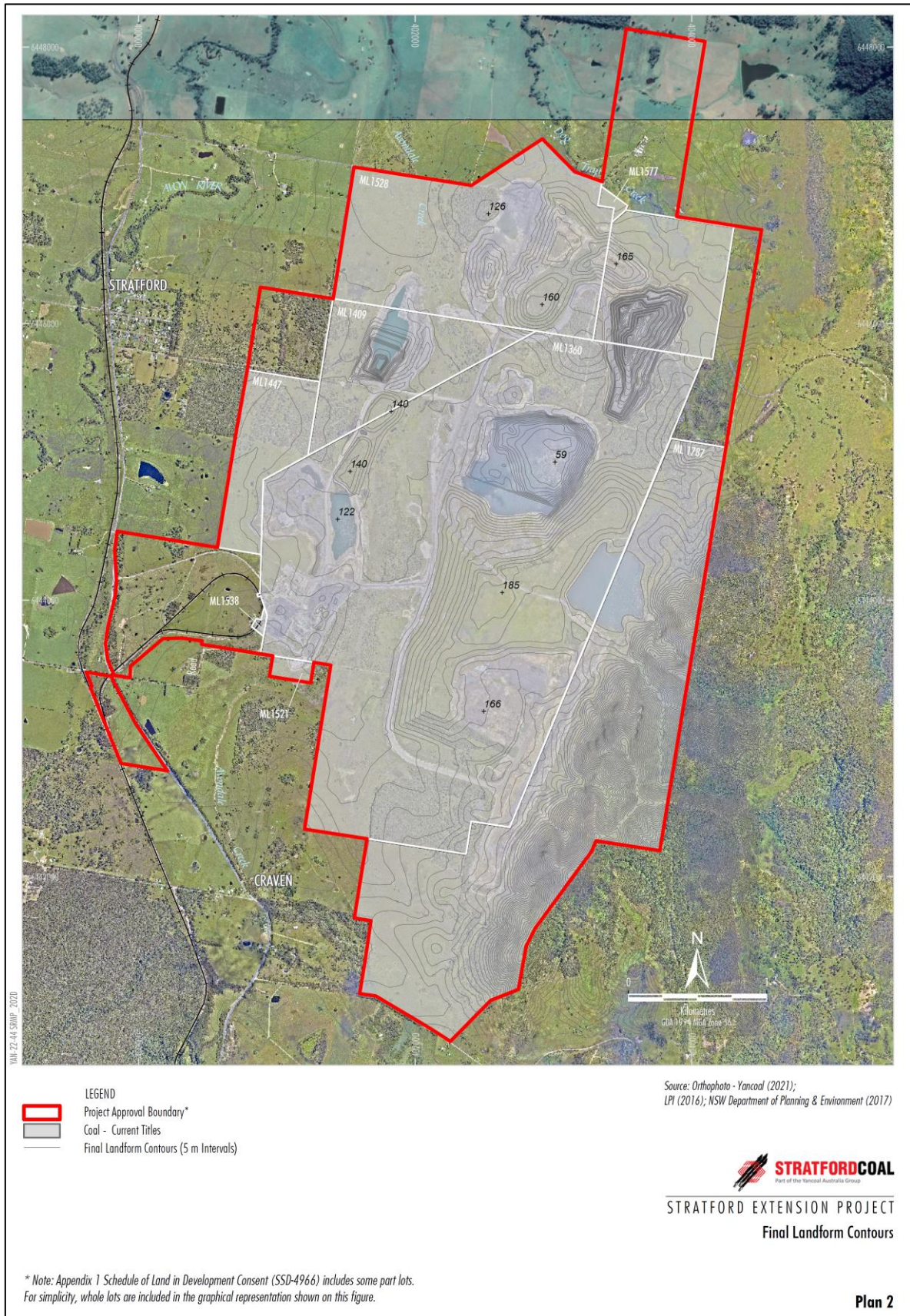
Accordingly, the SMC Rehabilitation Completion Criteria Statement has not been submitted to the Resources Regulator for approval.

Plate A6-2
Approved Final Landform and Rehabilitation Plan: Final Landform Features



Source: SCPL (2023)

Plate A6-3
Approved Final Landform and Rehabilitation Plan: Final Landform Contours



Source: SCPL (2023)

A6.3.5 Exploration Authorisations

In addition to the reuse of land disturbed by the SMC within the SMC MLs, the Project also intersects with the following SMC AUTHs:

- AUTH 311; and
- AUTH 315.

In accordance with the conditions of AUTHs 311 and 315, SCPL is required to rehabilitate land disturbed by activities within AUTHs 311 and 315 as per the requirements in Part B of the *Exploration Code of Practice: Rehabilitation (July 2015)* to the satisfaction of the Minister.

There would be no changes to SCPL's rehabilitation obligations associated with AUTHs 311 and 315 as a result of the Project.

A6.4 EXISTING STATUS OF SMC REHABILITATION

Rehabilitation of disturbed areas at the SMC has been undertaken progressively throughout mining operations in accordance with previous Mining Operations Plans and Rehabilitation Management Plans (MOP/RMP) (required by Development Consent SSD-4966), and more recently in accordance with the RMP required by the Regulation (which superseded the previous MOP/RMP).

Rehabilitation of disturbed areas at the SMC will continue in the mine closure phase. The extent of SMC disturbance is provided on Figure A6-1.

Rehabilitation activities across the SMC include areas in the following rehabilitation phases:

- landform establishment;
- growth medium development; and
- ecosystem and land use establishment.

Plan 1A of the SMC Annual Rehabilitation Report (SCPL, 2024a) provides a visual of the current status of mining and rehabilitation at the SMC and is provided as Plate A6-4.

SCPL has successfully undertaken rehabilitation activities at the SMC over approximately 230 ha of land (i.e. ecosystem and land use established) (Plate A6-4).

A6.5 PROJECT SEARS

The SEARs include assessment requirements related to rehabilitation of land at the site of the Project. The SEARs have been informed by advice provided by a suite of government departments, including the Department of Regional NSW – Mining, Exploration & Geoscience (MEG) and Resources Regulator.

Tables A6-3 and A6-4 present these requirements and indicate where they are addressed within this attachment.

A6.6 EXTENT OF OVERLAP WITH THE PROJECT AND SMC

The Project presents an opportunity to beneficially reuse land disturbed by the SMC and economically contribute to the Gloucester region after the completion of mining operations.

The Project has been designed to maximise the use of previously disturbed areas associated with the SMC to minimise new disturbance.

In particular, the footprint of the Solar Farm component of the Project has targeted areas previously disturbed by the SMC, including on the Stratford Waste Rock Emplacement, infrastructure areas, Western Co-disposal Area, and the Stratford East Open Cut and Bowens Road North Open Cut (once backfilled).

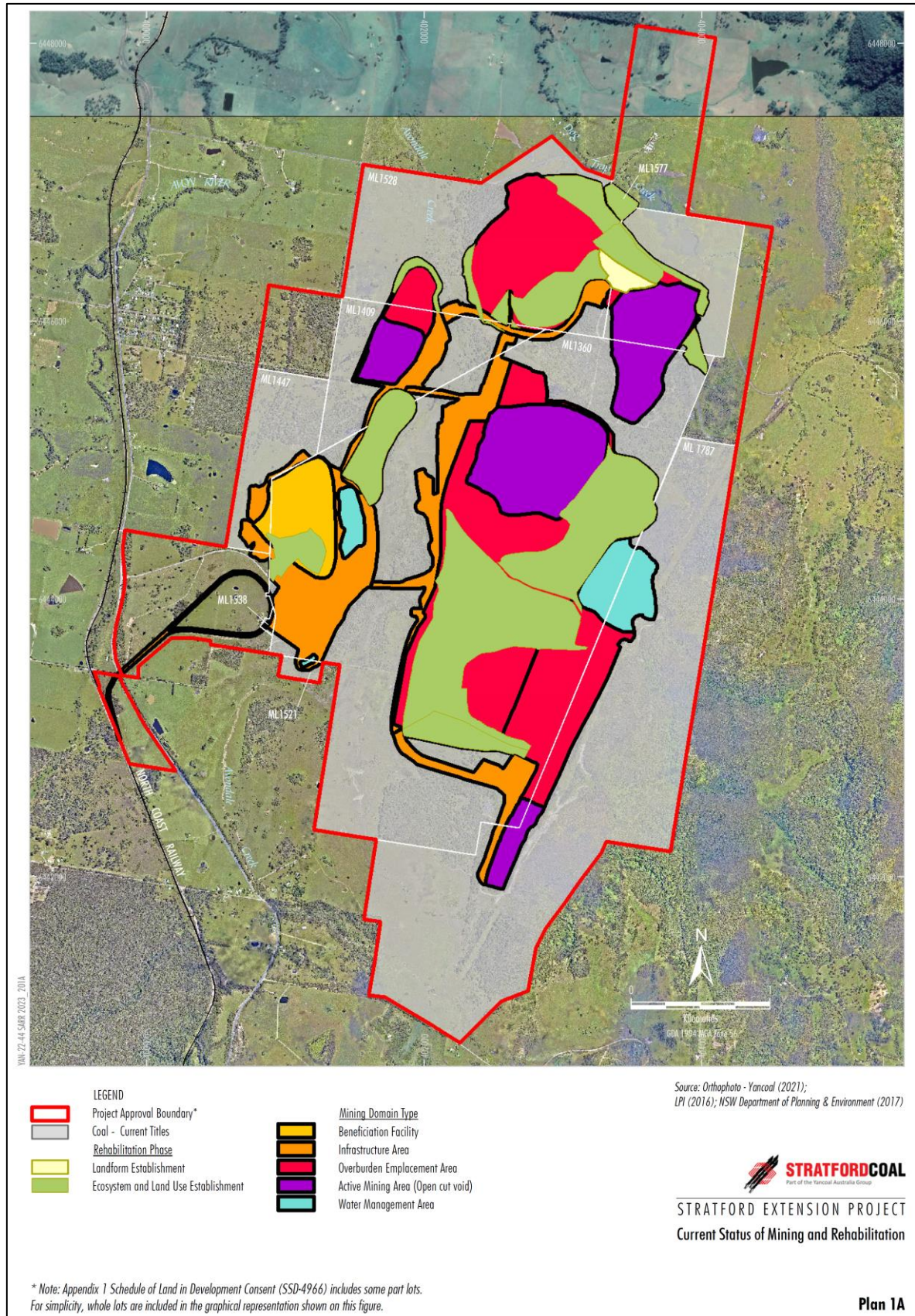
The extent of overlap between the Project and land disturbed by the SMC is provided on Figure A6-2.

The existing SMC mine voids associated with the SMC do not form part of the Project and would remain the responsibility of SCPL (Figure A6-2). Notwithstanding, the Pumped Hydro Energy Storage (PHES) component of the Project provides an opportunity for water contained within the SMC mine voids to be beneficially reused to initially fill the PHES. This would avoid reliance on natural water sources to fill and maintain water levels in the PHES.

After initial fill of the PHES, there would be limited interaction between the Project and the SMC final voids. More specifically (and in response to MEG advice on the SEARs [Table A6-4]), there would be no rapid fill or emptying of the SMC final voids due to the Project.

Subject to commercial agreement, 'top up' of the PHES using water contained within the SMC final voids may occur if required during operation of the Project.

Plate A6-4
Current Status of Mining and Rehabilitation



Source: SCPL (2024a)

Table A6-3
Project SEARs for Rehabilitation

Secretary's Environmental Assessment Requirements	Description
<i>In particular, the EIS must include:</i> ... • <i>a full description of the project including likely timing of the project including any stages, the key phases within each stage (site preparation, construction, commissioning, operation, decommissioning and rehabilitation) and the sequencing of these stages and phases;</i> ...	A full description of the Project is provided in Section 3 of the Environmental Impact Statement (EIS). Decommissioning and rehabilitation of the Project is discussed in Section A6.11.
Land: ... • <i>an assessment of impacts of the project on:</i> ... – <i>the impact on any existing Biodiversity Offset Areas, Enhancement Areas and Rehabilitation Areas;</i> ...	The Project has been designed around the SMC Biodiversity Offset Areas (Section 2.8.1 of the EIS). The implications of the Project on SCPL's obligations regarding the SMC Biodiversity Enhancement Areas and rehabilitation areas are provided in Section A6.9.
– <i>consideration of existing approvals, licences, titles, tenures and rehabilitation requirements for the site, including those specified under SSD-4966 (as modified) and the associated Mining Operations Plan and Rehabilitation Management Plan; and</i>	The existing approvals, licences, titles, tenures and rehabilitation requirements for the SMC are provided in Section A6.3.
• <i>a strategy to manage the progressive rehabilitation of the land disturbed by the project, enhance any new landforms created and describe the revised rehabilitation objectives and rehabilitation completion criteria to be achieved in relation to any retained infrastructure and / or disturbance areas to be utilised by the project.</i>	Progressive rehabilitation of the Project is considered in Section A6.11. Progressive rehabilitation (particularly landform establishment) of the SMC would generally remain the responsibility of SCPL, with the exception of the change in land use proposed by this Project. Revised SMC Rehabilitation Objectives Statement and SMC Rehabilitation Completion Criteria Statement are discussed in Section A6.10.

Table A6-4
MEG Advice on SEARs

Advice on SEARs	Description
It is noted that the Project will require a change to the currently approved final land use as specified in the development consent and rehabilitation outcomes documents approved under the mining leases associated with SMC. As such the EIS will need to clearly describe the revised rehabilitation objectives and rehabilitation completion criteria to be achieved by the title holder in relation to any retained infrastructure and or disturbance areas to be utilised by the Project. This will be used as the basis by the Resources Regulator to assess whether rehabilitation obligations under the mining lease have been achieved as part of the lease relinquishment process prior to commencement of the Project (if approved).	The revised SMC Rehabilitation Objectives Statement and SMC Rehabilitation Completion Criteria Statement is discussed in Section A6.10.
- Whilst the Resources Regulator encourages the beneficial re-use of mined land, the EIS will need to describe how any potential post-mining constraints and or residual risks will be effectively managed by the Project. Specific issues to be addressed for the infrastructure and or disturbance areas proposed to be utilised by the Project are outlined below. - SMC voids – as the voids are proposed to be used as a source of water to supply the Pumped Hydro Energy Storage (PHES), information is required on whether the slope stability design will take into account the potential for draw-down and subsequent re-charge of the pit-lake and what actions will be required to ensure the long term stability of the voids.	Not relevant. Unlike other PHES proposed at mine sites, the SMC voids do not form part of the Project PHES system. While the SMC voids would provide initial fill for the PHES system, the active storage volume (i.e. volume of water transferred between the upper and lower reservoirs) of approximately 6.95 gigalitres (GL) is small compared to the total capacity in the SMC voids (noting that approximately 33 GL of water was reported in the 2023 SMC Annual Review [SCPL, 2024b] site water balance).
SMC voids – as the voids are proposed to be used as an area to emplace excess spoil material from the Project (e.g. from the tunnel and powerhouse excavations), information is required in relation to potential implications on void landform stability, final pit water levels, revegetation outcome and timing for completing the rehabilitation of the voids.	The volume of material proposed to be stored is small compared to the capacity of the SMC voids. The SMC voids are not part of the Project. It would remain the responsibility of SCPL to ensure the SMC voids meet rehabilitation completion criteria.
Solar farms on former mine disturbed land – information is required in terms of how the design of the solar farm will address potential issues associated with differential settlement, erosion, ongoing sustainability of revegetation including weed management as well as the ultimate rehabilitation of these areas should the solar farm be decommissioned in the future.	It would be the responsibility of SCPL to provide a safe, stable and non-polluting landform, suitable for construction of the Solar Farm. The Project proponent would be responsible for weed management and erosion and sediment control during construction and operation of the Project.
Re-alignment of existing ETL across previously disturbed mine areas – information is required in relation to potential impacts to existing and planned rehabilitation areas.	A realignment of the 132 kV Electricity Transmission Line (ETL) was approved under Development Consent SSD-4966 as the Stratford East Open Cut was approved to cross the existing ETL. However, mining of the Stratford East Open Cut was not undertaken to the approved extent and the ETL did not require realignment. The realignment of the 132 kV ETL proposed as part of the Project is a shorter realignment than that of which is approved under Development Consent SSD-4966 and considered in regard to the impact of the Project to rehabilitation of the SMC (Section A6.9).
Utilisation of existing mine infrastructure – information is required in relation to the range of infrastructure (e.g. buildings, roads etc.) that will be utilised by the Project in order to support that these facilities be retained as part of the final rehabilitation of SMC.	The existing SMC infrastructure to be used by the Project is discussed in Section A6.7.



LEGEND

- 132 kV Electricity Transmission Line
- Approximate Extent of SMC Existing/Approved Surface Development
- Project Disturbance Footprint

Source: NSW Spatial Services (2023); Yancoal (2023)



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Extent of Overlap between
the Project and the SMC

Figure A6-2

A6.7 EXISTING SMC INFRASTRUCTURE TO BE USED BY THE PROJECT

The Project would maximise the use of existing SMC infrastructure for construction and operation to avoid and minimise additional disturbance required for the Project (Figure A6-3).

The use of existing SMC infrastructure for construction and operation of the Project is a significant environmental advantage of the Project when compared to greenfield/remote PHES sites.

Existing SMC infrastructure would be used for the Project, including:

- water pipelines, water management system, such as sediment and erosion controls;
- access roads;
- carpark and office facilities;
- services and utilities; and
- 33 kV/11 kV power supply and communications infrastructure.

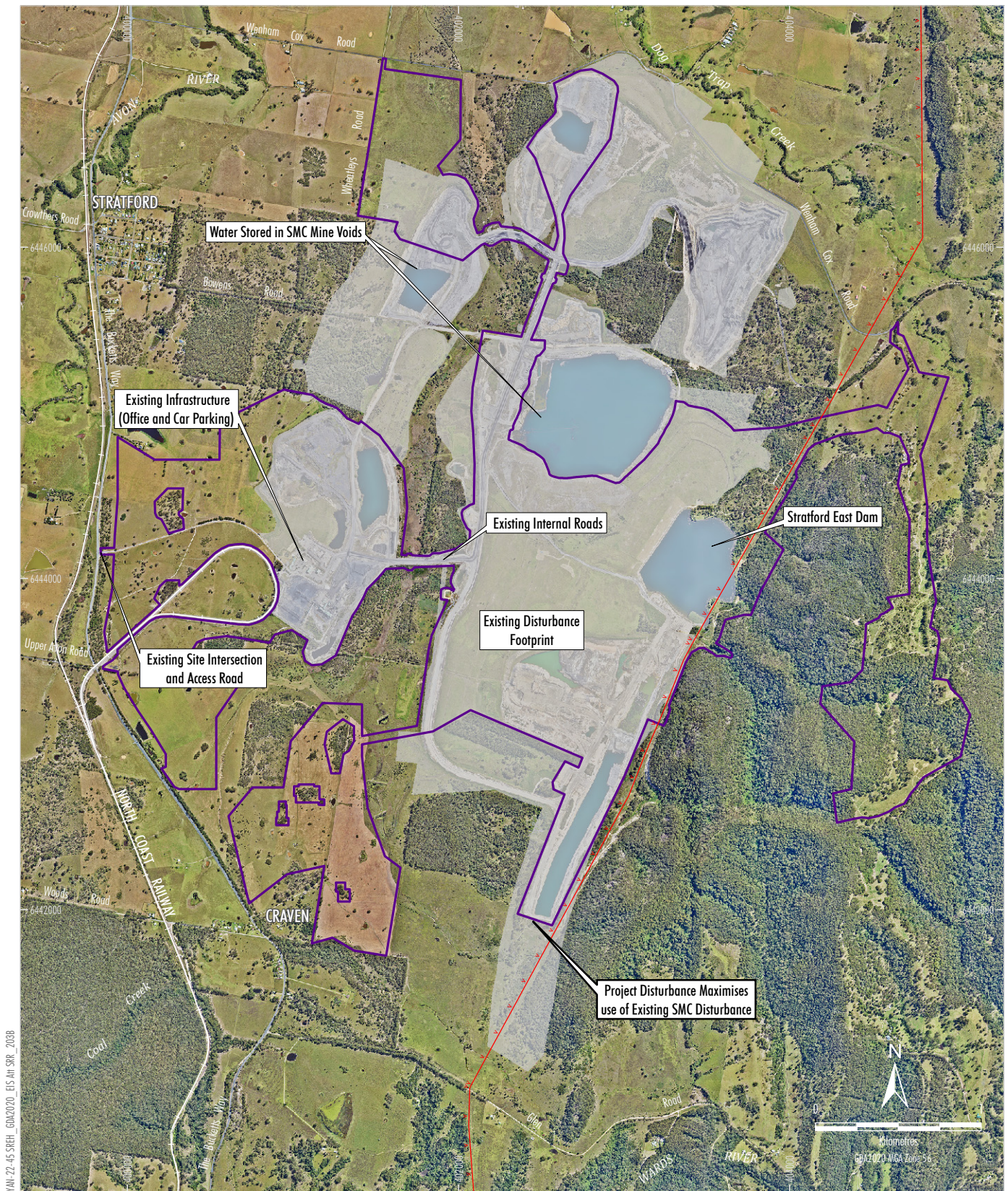
In addition, the Project would involve the upgrade of the existing Stratford East Dam for the lower reservoir.

A6.8 REHABILITATION REQUIRED TO FACILITATE THE PROJECT IN SOME AREAS

Portions of the Project footprint are contingent on rehabilitation of the landforms to be completed by SCPL (Figure A6-4).

Rehabilitation activities are categorised by the Resources Regulator (2024) into key rehabilitation phases:

- **Active Mining** – In the context of rehabilitation, land associated with mining domains is considered 'active' for the period following disturbance until the commencement of rehabilitation.
- **Phase 1: Decommissioning** – Removal of infrastructure associated with mining activities and may include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or 'fit for purpose' built infrastructure to be retained for future use(s) following lease relinquishment.
- **Phase 2: Landform Establishment** – The processes and activities required to construct the approved final landform (as per the development consent and the approved FLRP). In addition to profiling the surface of rehabilitation areas to the approved final landform profile, this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics. The landform design and construction part of this phase incorporates gradient, slope, aspect, drainage, substrate material characterisation and morphology.
- **Phase 3: Growth Medium Development** – Activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community. This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion. Additional characterisation of materials is usually required in this phase to cross check data from the earlier phases.
- **Phase 4: Ecosystem and Land Use Establishment** – The processes to establish the approved final land use following construction of the final landform. For vegetated land uses, this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installation of nest boxes.
- **Phase 5: Ecosystem and Land Use Development** – The activities to manage maturing rehabilitation areas on a trajectory to achieving rehabilitation objectives, completion criteria and the FLRP. Completion criteria for this phase includes components of floristic structure, nutrient cycling recruitment and recovery, community structure and function which are the key elements of a sustainable landscape.
- **Phase 6: Rehabilitation Completion** – Occurs where a rehabilitation area has achieved the final land use for the mining area as stated in the approved rehabilitation objectives and the approved rehabilitation completion criteria and spatially depicted in the approved FLRP. Rehabilitation areas may be classified as complete when the Resources Regulator has determined in writing that rehabilitation has achieved the final land use following submission of the relevant application by the lease holder.



LEGEND

-  132 kV Electricity Transmission Line
-  Approximate Extent of SMC Existing/Approved Surface Development
-  Project Disturbance Footprint

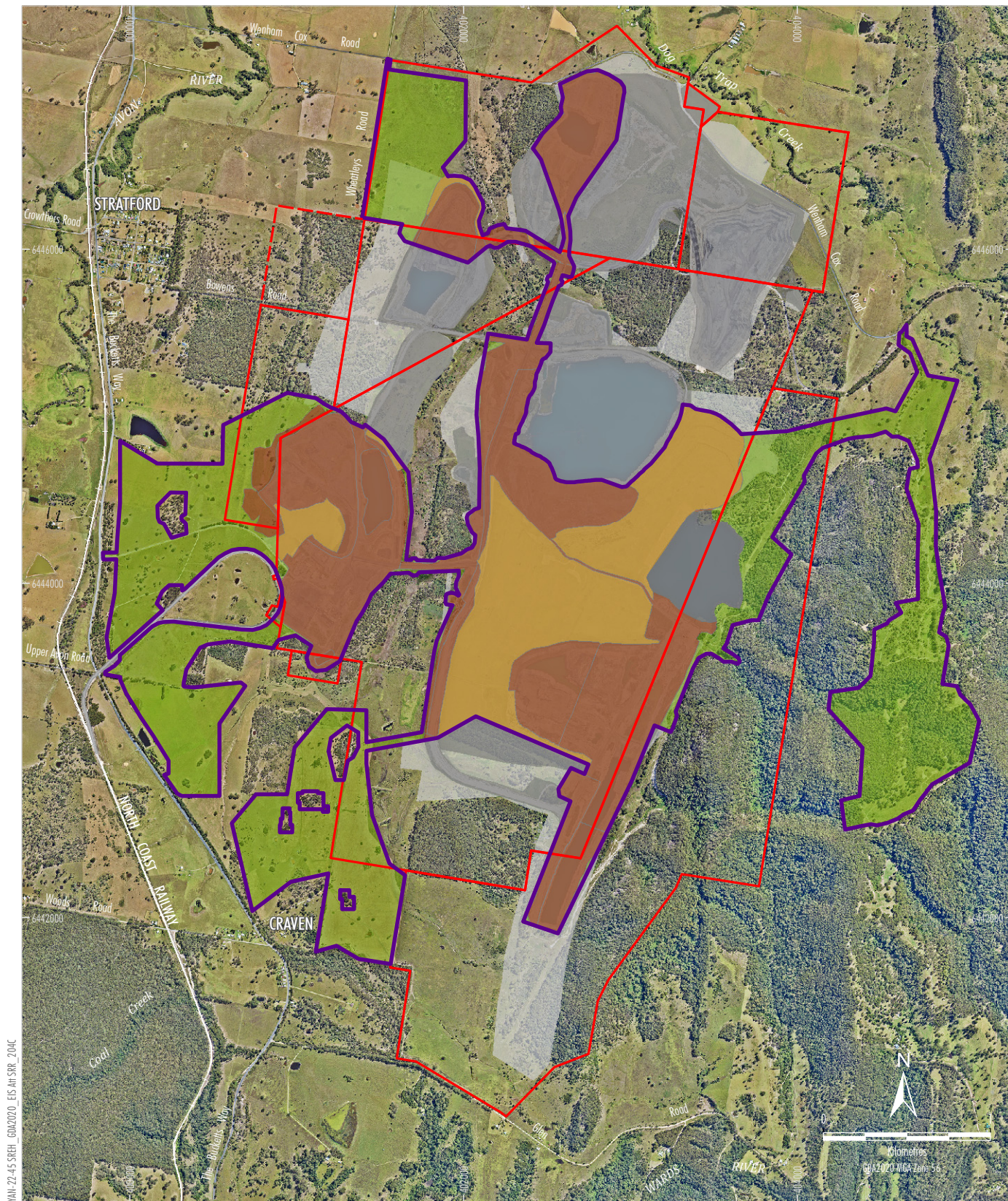
Source: NSW Spatial Services (2023); Yancoal (2023)



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SMC Infrastructure to be Used
by the Project

Figure A6-3



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Indicative Development Availability Status
of Project Site Landforms

Figure A6-4

As shown on Figure A6-4, there are three general types of land for the Project:

1. Areas outside of SMC disturbance (i.e. SMC rehabilitation is not relevant to the Project in these areas).
2. Land where SCPL has progressed rehabilitation to Ecosystem and Land Use Establishment (Phase 4). Generally, these areas are suitable for Project construction. However, the final land use would require change to reflect the Project.
3. Land where Landform Establishment (Phase 2) will be undertaken by SCPL and would be required for the Project.

These three general types of land for the Project are described in further detail below.

Areas Not Disturbed by the SMC

Areas outside of land disturbed by the SMC are available for Project construction with no SMC rehabilitation required prior to commencement of Project construction, and accordingly no change in final land use. This includes areas outside of the approved SMC disturbance footprint and areas within the approved SMC disturbance footprint that were never disturbed by the SMC. These areas would require minor site establishment works, particularly for the Solar Farm component of the Project.

Areas not disturbed by the SMC are presented as green on Figure A6-4.

Ecosystem and Land Use Established by SCPL and Available to the Project

Areas of SMC rehabilitation already undertaken by SCPL include land that has progressed to Ecosystem and Land Use Establishment (Phase 4) (Chart A6-1). These areas are more readily available for Project construction (i.e. would require minor site establishment works, similar to areas not disturbed by the SMC) than areas where landform establishment works are still required.

SCPL would seek to change the final land use and associated rehabilitation objectives and rehabilitation completion criteria for these areas to reflect the Project. As per Chart A6-1, it is not proposed that these areas would achieve Phases 5 and 6 of rehabilitation due to proposed infrastructure for the Project.

Areas of SMC rehabilitation already undertaken by SCPL within the Project disturbance footprint are presented as yellow on Figure A6-4.

SCPL to Establish Landforms

In many areas associated with the Project, SCPL would need to complete bulk earthworks (Phase 2) to establish a safe, stable and non-polluting landform in order for Project construction to commence (i.e. to achieve Phase 2).

SCPL would seek to change the final land use for these areas to reflect the Project. Revegetation is not required (i.e. Phases 3 to 6) in these areas due to the Project and its proposed infrastructure (Chart A6-1). Rehabilitation objectives and rehabilitation completion criteria for these areas would be revised to reflect achieving an established landform for the Project.

These areas are presented as brown on Figure A6-4.

A6.9 IMPLICATIONS OF THE PROJECT TO SMC REHABILITATION

A6.9.1 Background

The beneficial reuse of land disturbed by the SMC for the Project has consequences and considerations for rehabilitation of the SMC, including:

- SMC infrastructure would continue to be used for the Project, i.e. future use and not decommissioned.
- SCPL would still be required to achieve safe, stable and non-polluting final landforms.
- There would be changes in final land uses where the Project overlaps land disturbed by the SMC.
- SCPL would no longer be able to satisfy all rehabilitation obligations in Development Consent SSD-4966 (i.e., without modification of these obligations).
- There would be no change to SCPL's obligations associated with the final voids.

These implications and considerations are discussed in further detail below.

A6.9.2 Ongoing Use of SMC Infrastructure

In accordance with Condition 53, Schedule 3 of Development Consent SSD-4966, SCPL is required to decommission and remove surface infrastructure unless otherwise agreed by the Secretary of the DPHI.

Chart A6-1
Rehabilitation of SMC Land for the Project

		Within Project Area			Outside Project Area	
		Areas not Disturbed by the SMC	Ecosystem and Land Use Established by SCPL has already occurred	SCPL to Establish Landforms for the Project	Rehabilitation to be Undertaken by SCPL	Approved SMC Disturbance but not Disturbed
Rehabilitation Phases	Active Mining	SMC rehabilitation not required	✓	✓	✓	SMC rehabilitation not required for the Project To be considered as part of SMC Biodiversity Offset Strategy
	1 Decommissioning		✓	✓	✓	
	2 Landform Establishment		✓	✓	✓	
	3 Growth Medium Development		✓	✗	✓	
	4 Ecosystem and Land Use Establishment		✓	✗	✓	
	5 Ecosystem and Land Use Development		✗	✗	✓	
	6 Rehabilitation Completion		✗	✗	✓	

Phases defined by
Resources Regulator (2024)

Similarly, the SMC Rehabilitation Objectives Statement required by the Regulation states (emphasis added):

All infrastructure, including water management and rejects management infrastructure, that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials, unless justification has been provided for retention in the postmining land use.

Retention of water management infrastructure for post-mining use as agreed with relevant agencies and landholders.

With regard to Stratford East Dam, the SMC Rehabilitation Objectives Statement states:

All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community.

All infrastructure that is to remain as part of the final land use benefits from the relevant approvals (e.g. development consent and / or licence/lease/binding agreement, etc).

...

The Stratford East Dam would be retained for future post-mining use as water storage for agricultural (i.e. stock watering, irrigation) or other use.

Acceptance from regulators that the Project justifies the retention of infrastructure would be required to satisfy the objective relevant to the removal of all infrastructure unless otherwise agreed by the Secretary.

The objective to retain Stratford East Dam would not be changed by the Project.

A6.9.3 Safe, Stable and Non-polluting Landforms

Condition 53, Schedule 3 of Development Consent SSD-4966 requires the rehabilitated SMC to be safe, stable and non-polluting.

SCPL's obligation to achieve a safe, stable and non-polluting landform would be unchanged as a result of the Project, including where the Project overlaps with the SMC.

A6.9.4 Change in Final Land Use

The final land uses approved at the SMC are:

- agricultural – grazing;
- native ecosystem;
- final voids; and
- water storage areas (excluding final voids).

The Project would have the following implications on the final land uses at the SMC:

- No change to final voids.
- All SMC land not impacted by the Project (excluding final voids) would be rehabilitated by SCPL to a final land use associated with native ecosystem.
- The final land use of the land overlapped by the Project would change to reflect the Project (and become the responsibility of the Project proponent).

A6.9.5 Biodiversity Offset Strategy and Rehabilitation Obligations

Biodiversity Offset Strategy

In accordance with Condition 33, Schedule 3 of Development Consent SSD-4966, SCPL is required to implement a Biodiversity Offset Strategy. Condition 33, Schedule 33 of Development Consent SSD-4966 is quoted in Table A6-2.

The Project has been designed around the SMC Biodiversity Offset Areas.

The Project may interact with small portions of the SMC Biodiversity Enhancement Areas, however these areas are already subject to minor changes in configuration associated with SMC disturbance, with the overall target of 240 ha able to be achieved including the Project. The responsibility for the Biodiversity Enhancement Areas would remain with SCPL.

In addition to the establishment of SMC Biodiversity Offset Areas and Biodiversity Enhancement Areas, a portion of the mine rehabilitation (350 ha of native vegetation to be re-established) forms part of the Biodiversity Offset Strategy in Condition 33, Schedule 3 of the Development Consent SSD-4966.

SCPL would not be able to re-establish 350 ha of native vegetation, given mining operations at the SMC have not been completed to the maximum extent approved, and as a result of the Project.

Land disturbed by the SMC that falls outside of the Project disturbance footprint and outside of the SMC final voids would be rehabilitated to a final land use associated with native ecosystem is approximately 170 ha. Land that was approved for disturbance (and offset) but never disturbed by the SMC and also falls outside of the Project disturbance footprint is approximately 135 ha (which would also be revegetated to a land use consistent with native ecosystem). There would remain a deficit of approximately 45 ha to satisfy Condition 33, Schedule 3 of Development Consent SSD-4966.

The Project would satisfy any residual obligation by establishing areas of native ecosystem on Yancoal landholdings in proximity to the SMC and the Project such that between the SMC and the Project the overall requirement of 350 ha is achieved. For the Project this would include establishment of native ecosystem areas as part of vegetative screening efforts and efforts to improve the riparian corridor.

Confirmation of areas contributing to the re-establishment of 350 ha of native vegetation to satisfy Condition 33, Schedule 3 of Development Consent SSD-4966 from the SMC and Project would be determined in the SMC FLRP and a Project 'Rehabilitation and Revegetation Management Plan', respectively.

Nominally, the Project would be required to contribute approximately 45 ha of revegetation to the native vegetation requirement.

Figure A6-5 presents the areas where the Project proponent may seek to establish 45 ha of native vegetation.

Agricultural – Grazing

In accordance with Condition 53, Schedule 3 of Development Consent SSD-4966, SCPL is required to establish a minimum of 300 ha of land with Class 4 agricultural suitability.

As described above, all SMC land not required for the Project would be rehabilitated by SCPL to a final land use associated with native ecosystem.

Accordingly, SCPL would no longer be able to establish agricultural (grazing) land as a result of the Project and would require modification to Development Consent SSD-4966.

It is not proposed that the requirement would transfer to the Project. Loss of agricultural land as a consequence of the Project is considered by Minesoils Pty Limited (2024) in Appendix A of the EIS.

Final Voids

There would be no change to SCPL's rehabilitation obligations associated with the final voids as a result of the Project, which includes non-spilling voids.

Initial fill of the PHES component of the Project would not affect spill risk of the SMC voids.

Any future minor transfer of water from the SMC voids to 'top up' the PHES component of the Project would occur in accordance with agreement of SCPL (or any future owner of the SMC voids), and in consideration of achieving these requirements.

A6.10 CHANGES REQUIRED TO SMC REHABILITATION OUTCOMES AND EQUIVALENT PROJECT COMMITMENTS

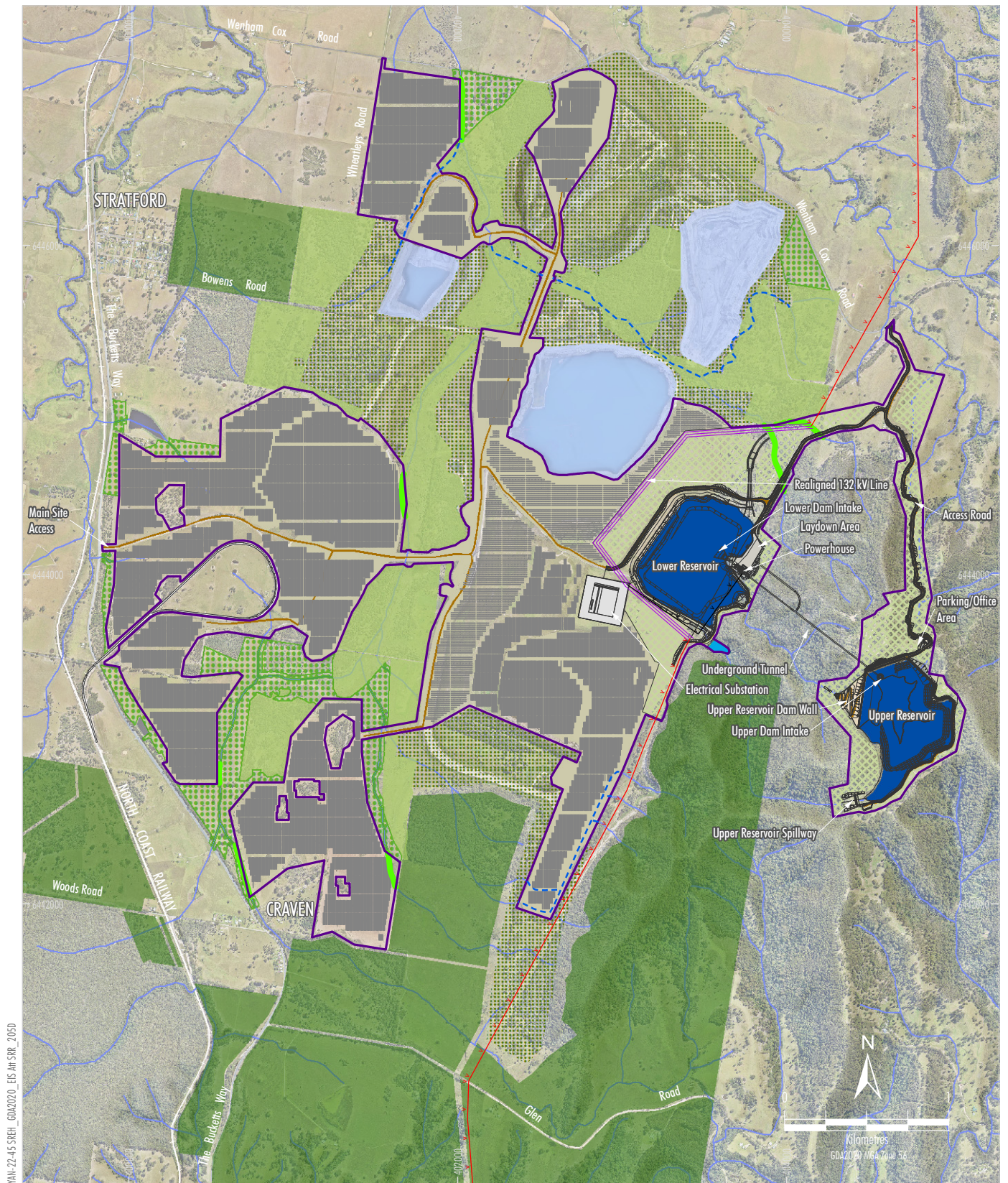
A6.10.1 Background

The NSW Government has outlined its intention to promote and facilitate economic development in regional NSW via alternative post-mining land uses in various policy documents.

In doing so, there are implications to approvals held by mining proponents that must be addressed in order to accommodate post-mining land uses. In the context of the SMC, implications include:

- Requirement for a modification to Development Consent SSD-4966.
- Submission of updated rehabilitation outcome documents required under the MLs for approval.

Implications relevant to SMC approvals are described below.



LEGEND

Project Components

- Project Disturbance Footprint
- Indicative Solar Photovoltaic Array Layout
- Internal Access Road
- Riparian Corridor Protection Zone
- Area Available to be Rehabilitated or Repurposed During Operations
- Potential Areas to Achieve Project Rehabilitation Obligation Associated with the SMC
- Realigned 132kV Transmission Line

SMC Development Consent SSD-4966 Components

- Biodiversity Offset Area
- Indicative Reconfigured Biodiversity Enhancement Area
- SCPL Rehabilitation
- Native Vegetation
- Final Void
- SCPL Retained Water Infrastructure

Source: NSW Spatial Services (2023); Yancoal (2023)



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Indicative Operational
General Arrangement

Figure A6-5

A6.10.2 Development Consent SSD-4966 and EPBC 2011/6176

A modification to Development Consent SSD-4966 would be required to accommodate the Project.

This includes modification of conditions relating to (Table A6-5):

- SMC Biodiversity Offset Strategy (Condition 33, Schedule 3 of Development Consent SSD-4966):
 - Reconfigure the SMC Biodiversity Enhancement Areas noting that, irrespective of the Project, this would likely require augmenting as the corridor locations have changed.
 - Reduce the commitment to establish 350 ha of native vegetation on rehabilitation areas to 305 ha within areas approved for disturbance at the SMC.
- SMC Rehabilitation Objectives (Condition 53, Schedule 3 of Development Consent SSD-4966), including:
 - Reflect justification to retain surface infrastructure for the Project.
 - Remove the requirement to establish 300 ha of agricultural land.
- Appendix 8 (Biodiversity Offset Strategy) depicting the conceptual final landform and land use:
 - Reflect the revised FLRP.

Condition 1 of EPBC 2011/6176 endorses the Biodiversity Offset Strategy and Rehabilitation Obligations required by Development Consent SSD-4966 (repeated in Table A6-2).

As EPBC 2011/6176 refers to conditions of Development Consent SSD-4966 which would be modified, a variation to EPBC 2011/6176 is unlikely to be required to accommodate the Project.

A6.10.3 Mining Leases

As the Project proposes to beneficially reuse land disturbed by the SMC, there are a number of overlaps with rehabilitation requirements associated with the MLs (and the Regulation) which would require amendment due to the Project.

Further, clause 4, Schedule 8A of the Regulation requires the following:

- (4) *The holder of the mining lease must prepare updated rehabilitation outcome documents for the mining lease and give them to the Secretary for approval before—*
 - (a) *60 days after a development consent is modified following an application referred to in clause 20(1)(b), or*
 - (b) *a later date approved by the Secretary.*

Accordingly, the following would require amendment and submission for approval to accommodate the changes to the final land use following modification of Development Consent SSD-4966:

- FLRP.
- Rehabilitation Objectives Statement.
- Rehabilitation Completion Criteria Statement.

The updates to the rehabilitation outcome documents would then be reflected in an update to the RMP.

The amendments to the SMC rehabilitation outcome documents required to accommodate the Project are detailed below.

Final Landform and Rehabilitation Plan

The final land use domains presented in the SMC FLRP would need to be updated by SCPL to accommodate the Project.

Where the beneficial reuse of land disturbed by the SMC is proposed as part of the Project, the final land use domain for this land would need to be updated to “Other”, consistent with the *Guideline: Mine Rehabilitation Portal* (Resources Regulator, 2021b).

For land disturbed by the SMC not proposed for reuse as part of the Project, the SMC final land use domains would become:

- native ecosystem; and
- final voids.

**Table A6-5:
Reconciliation of SMC Development Consent SSD-4966 Conditions
Requiring Modification Due to the Project**

Condition	Existing Obligations			Description of Proposed Modification to SMC to Reflect the Project
Condition 33, Schedule 3	Area	Offset Type	Minimum Size (ha)	
	<i>Biodiversity Offset Area, including Offset Areas 1, 2, 3 and 4</i>	<i>Existing vegetation to be enhanced and additional vegetation to be established.</i>	935 <i>Includes 490 ha of existing native vegetation.</i>	No change
	<i>Biodiversity Enhancement Area</i>	<i>Existing vegetation to be enhanced and additional vegetation to be established, including Cabbage Gum open forest within the Avondale Creek riparian area.</i>	240	No change
	<i>Rehabilitation Area</i>	<i>Native woodland vegetation communities to be re-established.</i>	350	Proposed reduction to reflect the Project (nominally to approximately 305 ha). The Project proponent would take on the responsibility to re-establish the residual area required to achieve a total of 350 ha of native ecosystem (nominally 45 ha).
Condition 53, Schedule 3	Feature	Objective		
	<i>Mine site (as a whole)</i>	<i>Safe, stable and non-polluting</i> <i>Constructed landforms drain to the natural environment</i> <i>Minimise visual impact of final landforms as far as is reasonable and feasible and be sympathetic to the original Gloucester valley landform</i>		No change No change No change
	<i>Final voids</i>	<i>Minimise the size and depth of final voids so far as is reasonable and feasible</i> <i>Minimise the drainage catchment of final voids so far as is reasonable and feasible</i> <i>Minimise high wall instability risk so far as is reasonable and feasible</i> <i>The size and depth of final voids must be designed having regard to their function as long-term groundwater sinks, to maximise groundwater flows across back-filled pits to the void and to not be a source of saline groundwater for aquifers and streams</i> <i>Designed and constructed to ensure adequate freeboard to ensure no spillage under any foreseeable conditions</i> <i>Minimise risk of flood interaction for all flood events up to and including the Probable Maximum Flood</i>		No change No change No change No change No change No change

**Table A6-5 (continued):
Reconciliation of SMC Development Consent SSD-4966 Conditions
Requiring Modification Due to the Project**

Condition	Existing Obligations		Description of Proposed Modification to SMC to Reflect the Project
Condition 53, Schedule 3 (continued)	Surface infrastructure	<i>To be decommissioned and removed, unless the Deputy Secretary, Resources and Energy agrees otherwise</i>	Surface infrastructure required for the Project to be retained.
	Agricultural land	<i>Establish a minimum of 300 hectares of land with Class 4 agricultural suitability</i>	Proposed removal of this requirement as the final land use associated with agriculture (grazing) would be superseded with infrastructure for the Project.
	Other land	<i>Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprising:</i> <i>a wildlife corridor (shown as Biodiversity Enhancement Area in the figure in Appendix 8);</i> <i>local native plant species; and</i> <i>a landform consistent with the surrounding environment</i>	No change to this objective. It is noted the approved FLRP will supersede Appendix 8, irrespective of the Project. No change No change
	Stratford and Glen heritage railway corridors	<i>Road and transmission alignments to avoid heritage railway corridors</i>	No change
		<i>Rehabilitation activities to avoid or minimise impacts</i>	No change
	Community	<i>Ensure public safety, with an emphasis on final voids</i> <i>Minimise the adverse socio-economic effects associated with mine closure</i>	No change No change

Further, the following changes to the SMC FLRP would be required:

- an update to the final landform features to reflect changes in the configuration of the SMC Biodiversity Enhancement Areas (noting that this would likely be required irrespective of the Project); and
- an update to the final landform contours to reflect the SMC final landform prior to construction of the Project.

The final landform features theme would also be updated to reflect where native revegetation efforts would be targeted within the MLs on the approximately 135 ha of land that was approved for disturbance but not disturbed for the SMC and that falls outside the Project disturbance footprint.

Rehabilitation Objectives Statement

The objectives within the Rehabilitation Objectives Statement are spatially aligned with the FLRP. Accordingly, any updates to the final land uses presented in the FLRP would result in the need to update the Rehabilitation Objectives Statement.

The changes required to the SMC Rehabilitation Objectives Statement to accommodate the Project would include, but not necessarily be limited to:

- Removing rehabilitation objectives associated with the agricultural (grazing) final land use.
- Removing rehabilitation objectives associated with the water storage areas (excluding final voids) final land use as Stratford East Dam is part of the Project and would be consistent with the new “Other” final land use domain.
- Inclusion of rehabilitation objectives for the new “Other” final land use domain associated with the Project. Rehabilitation objectives for these areas would be relevant to SCPL’s completion of rehabilitation up to and including (Chart A6-1):
 - Landform Establishment (Phase 2) for areas where SCPL will establish landforms required for the Project; and
 - Ecosystem and Land Use Establishment (Phase 4) for areas where SCPL has established the ecosystem and land use and where rehabilitated land is already available for the Project.

Rehabilitation Completion Criteria Statement

As described in Section A6.3.4, the SMC Rehabilitation Completion Criteria Statement has not been submitted to the Resources Regulator for approval.

Notwithstanding, the proposed SMC Rehabilitation Completion Criteria Statement is available in the SMC RMP (SCPL, 2023).

The proposed SMC Rehabilitation Completion Criteria Statement aligns with the SMC Rehabilitation Objectives Statement, and would therefore need updating to:

- Remove rehabilitation completion criteria associated with the agricultural (grazing) final land use.
- Remove rehabilitation completion criteria associated with the water storage areas (excluding final voids) final land use as Stratford East Dam is part of the Project and would be consistent with the new “Other” final land use domain.
- Include rehabilitation completion criteria for the new “Other” final land use domain associated with the Project. Rehabilitation completion criteria for these areas would be relevant to SCPL’s completion of rehabilitation up to and including (Chart A6-1):
 - Landform Establishment (Phase 2) for areas where SCPL will establish landforms required for the Project; and
 - Ecosystem and Land Use Establishment (Phase 4) for areas where SCPL has established the ecosystem and land use and where rehabilitated land is already available for the Project.

A6.11 REHABILITATION AND DECOMMISSIONING OF THE PROJECT

A6.11.1 Background

Revegetation, decommissioning and rehabilitation efforts would be required throughout the construction, operation, and decommissioning of the Project.

These activities would be described within a *Rehabilitation and Revegetation Management Plan*, which would likely form a sub-plan to a larger Construction Environmental Management Plan and/or Operational Environmental Management Plan, to appropriately manage revegetation, decommissioning and rehabilitation activities.

A6.11.2 Revegetation and Vegetative Screening

Where the Solar Farm component of the Project is proposed in closest proximity to The Bucketts Way, implementation of vegetative screening is proposed to minimise visual impacts of the Solar Farm to users of The Bucketts Way (Figure A6-5).

The length of the Solar Farm proposed along The Bucketts Way would be wholly screened by vegetation when considering the existing vegetative screening in the land zoned as C3 (Environmental Management) under the *Gloucester Local Environmental Plan 2010* and the additional area proposed for vegetative screening.

A6.11.3 Progressive Rehabilitation

Upon completion of Project construction, temporary landforms and works that are not required for Project operations (e.g. construction material stockpiles) would be decommissioned and rehabilitated, and typically revegetated with native vegetation. However, it should be noted that additional solar would be considered in these areas.

The rehabilitation of temporary construction areas to a final land use associated with native ecosystem would contribute to the 45 ha to be established by the Project proponent to satisfy the SMC Biodiversity Offset Strategy.

The temporary construction areas are in proximity to existing native vegetation and a portion of the SMC Biodiversity Enhancement Areas (which also forms part of the SMC Biodiversity Offset Strategy). Accordingly, this would provide a corridor for wildlife within the Project disturbance footprint relatively early into the operational life of the Project.

A6.11.4 Decommissioning and Rehabilitation

Following completion of the Project, rehabilitation and decommissioning activities for the PHES would include:

- dewatering of the upper reservoir;
- the removal of the upper reservoir dam wall;
- subject to appropriate water quality, reconfiguration of the lower reservoir to a flow-through system (consistent with the closure concept for Stratford East Dam);
- removal of powerhouse equipment and filling of powerhouse silo;
- filling of the waterway tunnel and vertical shaft to mitigate future subsidence impacts;
- removal of the foundation and hardstand and re-establish soils/growth medium/soil regeneration;
- revegetation of the upper reservoir; and
- ongoing controls to manage rehabilitation.

Rehabilitation and decommissioning works for the Solar Farm would include:

- removal of solar panels and other infrastructure;
- revegetation of the area; and
- ongoing controls to manage rehabilitation.

A6.12 REFERENCES

- Department of Planning and Environment (2022). *Hunter Regional Plan 2041*.
- Department of Regional NSW (2020). *Strategic Statement on Coal Exploration and Mining in NSW*.
- Department of Regional NSW (2023). *Practical guide: Post mining land uses*.
- Minesoils Pty Limited (2024). *Stratford Renewable Energy Hub Soils, Land and Agricultural Impact Assessment*. Prepared for Yancoal Australia Ltd.
- Resources Regulator (2021a). *Guideline: Achieving Rehabilitation Completion (Sign-off)*.
- Resources Regulator (2021b). *Guideline: Mine Rehabilitation Portal*.
- Resources Regulator (2024). *Form and Way – Rehabilitation Management Plan for Large Mines*.
- Stratford Coal Pty Ltd (2023). *Stratford Mining Complex: Rehabilitation Management Plan*.
- Stratford Coal Pty Ltd (2024a). *Stratford Coal Mine Annual Rehabilitation Report: Sunday 1 January 2023 to Sunday 31 December 2023*.
- Stratford Coal Pty Ltd (2024b). *Stratford Mining Complex: Annual Review 2023*.