

To: Kim Farrant, Assistant Secretary, Assessments (Vic, Tas) and Post Approvals Branch,
Environment Approvals Division

s. 47F(1)

Through: s. 22(1)(a)(ii) , Director, Post Approvals Section

10 March 2021

**EPBC 2010/5736 – Carmichael Coal Mine and Rail Infrastructure Project, Queensland:
Variation of conditions attached to the approval to replace Appendix A**

Timing: As soon as possible. The revised request was made on 17 February 2021.

Recommendations:

1. That you agree to vary the conditions attached to EPBC Act approval 2010/5736 in accordance with the decision instrument at **Attachment A**.

Agreed / Please discuss

2. If you agree to Recommendation 1, that you sign the decision instrument at **Attachment A** for publication.

Signed / Not signed

3. If you sign the instrument at **Attachment A**, that you sign the letter at **Attachment B** advising the approval holder of your decision.

Signed / Not signed



Signatory: Kim Farrant, Assistant Secretary, Assessments
(Vic, Tas) and Post Approvals Branch,
Environment Approvals Division

Date: 15 March 2021

Comments:

Key issues

- On 17 February 2021, Mr David Bohoff, CEO, Adani Mining Pty Ltd, trading as Bravus Mining and Resources, submitted a request to the Department (see **Attachment C**) to vary Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) approval for the Carmichael Coal Mine and Rail Infrastructure Project (the action).
- Adani has requested that Appendix A of the approval be updated to incorporate a number of design changes to the location of temporary and permanent project infrastructure. This involves six maps that show the mine domains, offsite infrastructure and four maps that show the disturbance area for the rail component of the action.

Background

- The Minister has delegated you as decision maker for this matter pursuant to section 515 of the EPBC Act.
- On 14 October 2015, the Hon Greg Hunt MP, then Minister for the Environment, approved with conditions Adani to develop an open cut and underground coal mine, 189 km rail link and associated infrastructure, approximately 160 km north west of Clermont in central Queensland (see EPBC 2010/5736) (the action).
- The controlling provisions for the action are World Heritage properties (sections 12 and 15A), National Heritage places (sections 15B and 15C), Wetlands of international

importance (sections 16 and 17B), listed threatened species and communities (sections 18 and 18A), listed migratory species (sections 20 and 20A), Great Barrier Reef Marine Park (sections 24B and 24C) and a water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E).

6. The approval has previously been varied on 5 January 2017, 26 September 2019 and 13 January 2021. The current conditions of approval are at **Attachment D**.

Legal basis for variation

7. Under section 143(1)(c) of the EPBC Act, the Minister may revoke, vary or add to any conditions (other than the condition referred to in section 134(1A)) attached to an approval if the holder of the approval agrees to the proposed revocation, variation or addition, and the Minister is satisfied that the conditions attached to the approval after the proposed revocation, variation or addition are necessary or convenient for:

- protecting a matter protected by any provision of Part 3 for which the approval has effect, or
- repairing or mitigating damage to a matter protected by a provision of Part 3 for which the approval has effect (whether or not the damage has been, will be or is likely to be caused by the action).

The proposed variation

8. Adani has advised that it has identified several design changes to the location of temporary and permanent project infrastructure that will minimise stakeholder impacts, improve efficiency and reduce environmental impacts. Adani has provided information from pre-clearance surveys that show a small net reduction in the area, including habitat for matters of national environmental significance (MNES) impacted (see **Attachment C**).

Department evaluation

9. The Department has reviewed the proposed variation and accepts Adani's advice that it will result in a minor reduction in the area of MNES habitat impacted by the action. No proposed changes to the location of infrastructure conflict with or affect any condition attached to the approval. The proposed new Appendix A to the approval decision is consistent with the approved action.
10. The Department has compared the maps in Appendix A to the approval decision with the proposed replacements and considers that the latter are substantially clearer and therefore their use will improve the enforceability of the conditions.
11. On 4 March 2021, Bravus agreed to the wording of the variation notice (**Attachment E**).
12. On the above basis, the Department considers the conditions attached to the approval after the proposed variation are, in accordance with section 143(1)(c) of the EPBC Act, necessary or convenient for protecting the matters for which the approval is required.

Proposed decision

13. On the above basis, the Department recommends that you:
- agree to vary the conditions of approval for EPBC approval 2010/5736 in accordance with the variation decision instrument at **Attachment A**;
 - sign the decision instrument at **Attachment A**; and
 - sign the letter at **Attachment B** advising the approval holder of your decision.

CONTACT OFFICER: s. 22(1)(a)(ii)

ATTACHMENTS

A: Proposed variation decision instrument (for signature)

s. 47E(d)

B: Letter to the approval holder (**for signature**)

s. 47E(d)

C: Letter from Adani Mining Pty Ltd dated 17 February 2021 (for information)

s. 47E(d)

D: Current approval conditions for EBPC 2010/5736 (for information)

s. 47E(d)

E: Email agreeing to notice (for information)

s. 47E(d)



VARIATION OF CONDITIONS ATTACHED TO APPROVAL Carmichael Coal Mine and Rail Infrastructure Project, Queensland (EPBC 2010/5736)

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Approved action

Person to whom the approval is granted	Adani Mining Pty Ltd ACN: 145 455 205
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Approved action	To develop an open cut and underground coal mine, 189 km rail link and associated infrastructure approximately 160 km north west of Clermont in central Queensland [see EPBC Act referral 2010/5736 and approved variations dated 19 April 2012, 9 October 2012 and 24 July 2013]
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Variation

Variation of conditions attached to approval	The variation is: Delete Appendix A attached to the approval and substitute with the Appendix A specified in the table below
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Date of effect	This variation has effect on the date the instrument is signed
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Person authorised to make decision

Name and position	Kim Farrant Assistant Secretary Assessments (Vic, Tas) and Post Approvals Branch
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Signature	
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Date of decision	15 March 2021
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Date of decision	Conditions attached to approval
Original dated 14/10/2015	1. The Minister may determine that a plan, strategy or program approved by the Queensland Government satisfies a plan, strategy or program required under these conditions.
Original dated 14/10/2015	<p>Project area</p> <p>2. For the purpose of the action, the approval holder must not clear vegetation outside the Project Area shown at <u>Appendix A</u> unless targeted surveys have demonstrated that Matters of National Environmental Significance are unlikely to be impacted.</p>
Original dated 14/10/2015	<p>Groundwater management and monitoring plan</p> <p>3. At least three months prior to commencing excavation of the first box cut, the approval holder must submit to the Minister for approval a Groundwater Management and Monitoring Plan (GMMP). The GMMP must be informed by the results of the groundwater flow model re-run (condition 23) and contain the following:</p> <ul style="list-style-type: none"> a. details of a groundwater monitoring network that includes: <ul style="list-style-type: none"> i. control monitoring sites ii. sufficient bores to monitor potential impacts on the Great Artesian Basin (GAB) aquifers (whether inside or outside the Project Area) iii. a rationale for the design of the monitoring network with respect to the nature of potential impacts and the location and occurrence of Matters of National Environmental Significance (whether inside or outside the Project Area). b. baseline monitoring data c. details of proposed trigger values for detecting impacts on groundwater levels and a description of how and when they will be finalised and subsequently reviewed in accordance with state approvals d. details of groundwater level early warning triggers and impact thresholds for the Doongmabulla Springs Complex, informed by groundwater modelling and corrective actions and/or mitigation measures to be taken if the triggers are exceeded where caused by mining operations, to ensure that groundwater drawdown as a result of the project does not exceed an interim threshold of 0.2 metres at the Doongmabulla Springs Complex <ul style="list-style-type: none"> i. the early warning triggers and impact thresholds must be informed by groundwater modelling in accordance with Conditions 3.e.i, 22, 23 and 24 and the relevant requirements of the environmental authority held under the Environmental Protection Act (1994) Qld (in particular requirements arising in response to the conditions at Appendix 1, Section 1, Schedule E of the Coordinator-General's Assessment Report) ii. the interim drawdown threshold required under condition 3.d. may be replaced with a new drawdown threshold, if the approval holder applies to the Minister for approval to change it, and submits further evidence supported by further groundwater modelling and other scientific investigations (such as those required in conditions 25 and 27), that a new drawdown threshold will ensure the protection and long-term viability of the Doongmabulla Springs Complex e. details of the timeframe for a regular review of the GMMP in accordance with the requirements of the environmental authority issued under the <i>Environmental Protection Act 1994</i> (Qld), and subsequent updates of the GMMP, including how each of the outcomes of the following will be incorporated: <ul style="list-style-type: none"> i. independent review and update of the groundwater conceptual model, as well as the numerical groundwater model and water balance calculations as necessary, to incorporate monitoring data

Date of decision	Conditions attached to approval
	<ul style="list-style-type: none"> ii. future baseline research required by the Queensland Coordinator-General into the Mellaluka Springs Complex (Appendix 1, Section 3, Condition 1 of the Coordinator-General's Assessment Report) iii. the GAB Springs Research Plan (Conditions 25 and 26) iv. the Rewan Formation Connectivity Research Plan (Conditions 27 and 28). f. provisions to make monitoring data available to the Department and Queensland Government authorities (if requested) on a six monthly basis for inclusion in any cumulative impact assessment, regional water balance model, bioregional assessment or relevant research required by the Bioregional Assessment of the Galilee Basin sub-region and the Lake Eyre Basin and any subsequent iterations g. provisions to make monitoring results publicly available on the approval holder's website for the life of the project h. a peer review by a suitably qualified independent expert and a table of changes made in response to the peer review.
Original dated 14/10/2015	<p>4. The approval holder must not commence excavation of the first box cut until the GMMP has been approved by the Minister in writing. The approved GMMP must be implemented.</p> <p><i>Note: Many elements of the GMMP are also required under the state approval for the project. Where possible, a combined document should be prepared that addresses both state government and EPBC Act approval conditions.</i></p>
Original dated 14/10/2015	<p>Matters of National Environmental Significance management plan/s</p> <p>5. At least three months prior to commencement of mining operations, the approval holder must submit to the Minister for approval Matters of National Environmental Significance plan/s for the management of direct and indirect impacts of mining operations on MNES.</p> <p><i>Note: If the MNESMP does not address any specific future activities (e.g. possible additional seismic surveys or specific mining stages) it should be updated in accordance with Condition 33.</i></p>
Original dated 14/10/2015	<p>6. The MNESMP must incorporate the results of the groundwater flow model re-run (condition 23) where relevant, and be consistent with relevant recovery plans, threat abatement plans and approved conservation advices and must include:</p> <ul style="list-style-type: none"> a. a description of environmental values for each of the Matters of National Environmental Significance addressed in the plan b. details of baseline and impact monitoring measures to be implemented for each of the Matters of National Environmental Significance including control and impact sites to be monitored throughout the life of the project. The monitoring must provide sufficient data to quantify likely impacts resulting from mining operations, including subsidence and changes in groundwater levels, to set habitat management goals (Conditions 6e) and 6f)) c. details of potential impacts, including area of impact, on each of the Matters of National Environmental Significance from mining operations, including impacts from: <ul style="list-style-type: none"> i. vegetation clearing ii. subsidence from underground mining, including subsidence induced fracturing and any changes to groundwater or surface water flow iii. mine dewatering iv. earthworks v. noise and vibration

Date of decision	Conditions attached to approval
	<ul style="list-style-type: none"> vi. emissions (including dust) vii. light spill and other visual impacts viii. stream diversion and flood levees ix. weeds and pests. <p>d. measures that will be undertaken to mitigate and manage impacts on Matters of National Environmental Significance resulting from mining operations. These measures must include but not be limited to:</p> <ul style="list-style-type: none"> i. the use of fauna spotters prior to and during all vegetation clearing activities to ensure impacts on Matters of National Environmental Significance are minimised ii. measures to avoid impacts on Matters of National Environmental Significance and their habitat located in the Project Area, but outside areas to be cleared, constructed upon and / or undermined, including adjacent to cleared areas iii. measures to rehabilitate all areas of Matters of National Environmental Significance habitat iv. habitat management measures including but not limited to management of subsidence and groundwater impacts of the project. <p>e. goals for habitat management for each relevant Matters of National Environmental Significance</p> <p>f. a table of specific criteria for assessing the success of management measures against goals, and triggers for implementing corrective measures if criteria are not met within specified timeframes. This table must include but not be limited to measures relating to subsidence and groundwater impacts, including early warning triggers for impacts on groundwater at the Doongmabulla Springs Complex and the Carmichael River. Goals and triggers must be based on the baseline condition of the relevant Matters of National Environmental Significance as determined through baseline monitoring (see Conditions 3b) and 6b)). Corrective measures must include provision of offsets where it is determined that corrective management measures have not achieved goals within specified timeframes (see Conditions 11m) and 11o))</p> <p>g. an ongoing monitoring program to determine the success of mitigation and management measures against the stated criteria in Condition 6f), including monitoring locations, parameters and timing. Monitoring for water resource Matters of National Environmental Significance must include hydrogeological, hydrological and ecological parameters</p> <p>h. details of how compliance will be reported</p> <p>i. details of how the MNESMP will be updated to incorporate and address outcomes from research undertaken for Matters of National Environmental Significance under this and any state approvals, including updating of goals, criteria and triggers (as required under Conditions 3c), 3d), 6e) and 6f))</p> <p>j. provisions to ensure that suitably qualified and experienced persons are responsible for undertaking monitoring, review, and implementation of the MNESMP</p> <p>k. In the event that the future baseline research required by the Queensland Coordinator-General (Appendix 1, Section 3, Condition 1 of the Coordinator-General's Assessment Report) identifies that the Mellaluka Springs Complex provides high value habitat for the black throated finch, the approval holder must include management measures to address impacts resulting from drawdown at the Mellaluka Springs Complex in the MNESMP</p> <p>l. details of how, where habitat for an EPBC Act listed threatened species or community not previously identified and reported to the Department is found in the</p>

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	<p>Project Area, the approval holder will notify the Department in writing within five business days of finding this habitat, and within 20 business days of finding this habitat will outline in writing how the conditions of this approval will still be met (refer Condition 11h)).</p>																																																	
Original dated 14/10/2015	<p>7. Mining operations must not commence until the required MNESMP have been approved by the Minister in writing. The approved plan/s must be implemented.</p> <p><i>Note: Management plans (such as the Black Throated Finch Management Plan and the Groundwater Dependent Ecosystems Management Plan) may also be required under state approvals. Whenever possible a combined document should be prepared to address both state government and EPBC Act approval conditions.</i></p> <p><i>Note: Impacts of the action other than mining operations will be offset as required in accordance with Conditions 8 to 11, but will be otherwise managed in accordance with state approvals – this is of particular relevance when impacts may occur prior to approval of the MNESMP.</i></p>																																																	
Variation dated 13/1/2021	<p>Offset Requirements</p> <p>8. The approval holder must legally secure the minimum offset areas detailed in Table 1 for the rail (west) component within five years of commencement of the specified component of the action. The approval holder must legally secure the minimum offset areas for the other specified components detailed in Table 1 within three years of commencement of those specified components of the action.</p> <p>Table 1. Minimum offset areas required for impacts on EPBC Act listed threatened species and communities and initial contribution to offsets for subsidence impacts from underground mining.</p> <table border="1" data-bbox="395 1077 1501 1608"> <thead> <tr> <th><i>Environmental value</i></th> <th><i>Offset for mining operations north of Carmichael River (hectares)</i></th> <th><i>Offset for mining operations south of Carmichael River (hectares)</i></th> <th><i>Initial offset for underground mining component (hectares)</i></th> <th><i>Offset for off-lease infrastructure (hectares)</i></th> <th><i>Offset for rail east component (hectares)</i></th> <th><i>Offset for rail west component (hectares)</i></th> </tr> </thead> <tbody> <tr> <td>Black throated finch (southern)</td> <td>18 204.06</td> <td>10 739.39</td> <td>2,000.00</td> <td>7.62</td> <td>2.44</td> <td>46.48</td> </tr> <tr> <td>Brigalow ecological community</td> <td>15.12</td> <td>721.11</td> <td></td> <td>0.00</td> <td>6.26</td> <td>72.50</td> </tr> <tr> <td>Ornamental snake</td> <td>96.39</td> <td>38.61</td> <td></td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Squatter pigeon (southern)</td> <td>1598.00</td> <td>902.00</td> <td></td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Waxy cabbage palm</td> <td>90.00</td> <td>0.00</td> <td></td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Yakka skink</td> <td>3770.48</td> <td>1815.42</td> <td></td> <td>1.87</td> <td>0.60</td> <td>11.63</td> </tr> </tbody> </table> <p><i>Note: Offsets for different species may overlap where they share the same habitat requirements.</i></p>	<i>Environmental value</i>	<i>Offset for mining operations north of Carmichael River (hectares)</i>	<i>Offset for mining operations south of Carmichael River (hectares)</i>	<i>Initial offset for underground mining component (hectares)</i>	<i>Offset for off-lease infrastructure (hectares)</i>	<i>Offset for rail east component (hectares)</i>	<i>Offset for rail west component (hectares)</i>	Black throated finch (southern)	18 204.06	10 739.39	2,000.00	7.62	2.44	46.48	Brigalow ecological community	15.12	721.11		0.00	6.26	72.50	Ornamental snake	96.39	38.61		0.00	0.00	0.00	Squatter pigeon (southern)	1598.00	902.00		0.00	0.00	0.00	Waxy cabbage palm	90.00	0.00		0.00	0.00	0.00	Yakka skink	3770.48	1815.42		1.87	0.60	11.63
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Original dated 14/10/2015	<p>Biodiversity Offset Strategy and biodiversity funding</p> <p>9. To compensate for authorised unavoidable impacts on Matters of National Environmental Significance, the approval holder must submit a Biodiversity Offset Strategy (BOS) and a GAB Offset Strategy to the Minister for approval at least three months prior to commencement of mining operations.</p>																																																	
Original dated 14/10/2015	<p>10. Offsets for authorised unavoidable impacts (defined in Table 1), and water resource impacts must be managed in accordance with the BOS and the GAB Offset Strategy.</p>																																																	
Variation dated 26/9/2019	<p>11. The BOS must be consistent with the Galilee Basin Offset Strategy, where relevant, relevant recovery plans, threat abatement plans, conservation advices and MNESMP (see Condition 6), including the Black Throated Finch Management Plan (Appendix 1, Section 1,</p>																																																	

Date of decision	Conditions attached to approval
	<p>Schedule I, condition I6 of the Coordinator-General's Assessment Report). The BOS must include the following (except for the matters at 11k) and 11l), which apply to the Great Artesian Basin (GAB) Offset Strategy):</p> <ol style="list-style-type: none"> a) location of species and communities habitat offset areas including maps in electronic Geographic Information System (GIS) format b) details of how offset sites have been or will be legally secured within required timeframes to ensure their long-term protection c) a monitoring program for the offset site/s suitable to measure the success of the management measures against stated performance criteria including monitoring locations, parameters and timing d) a description of the potential risks to the successful implementation of the BOS, and details of contingency measures that will be implemented to mitigate these risks e) details of how the BOS will be updated to incorporate outcomes from research undertaken for Matters of National Environmental Significance under this and any state approvals, including updating of goals, criteria and triggers (as outlined at Conditions 3c), 3d), 6e) and 6f)). This must include outcomes of baseline research required by the Queensland Coordinator-General to identify whether the Mellaluka Springs Complex provides high value habitat for the black throated finch (Appendix 1, Section 3, Condition 1 of the Coordinator-General's Assessment Report) f) an outline of how compliance will be reported g) provisions to ensure that suitably qualified and experienced persons are responsible for undertaking monitoring, review, and implementation of the BOS h) detailed processes for any residual impacts on Matters of National Environmental Significance, (see Condition 6f)) to be offset in accordance with the EPBC Act Offsets Policy including a process for offset requirement to be developed in consultation with the Department and relevant Queensland Government agencies i) a detailed process for any significant residual impact on any EPBC listed threatened species or ecological community not identified in Table 1 to be offset in accordance with the EPBC Act Offsets Policy (refer Condition 6l)) j) in the event that the future baseline research required by the Queensland Coordinator-General (Appendix 1, Section 3, Condition 1 of the Coordinator-General's Assessment Report) identifies that the Mellaluka Springs Complex provides high value habitat for the black throated finch, the approval holder must: <ol style="list-style-type: none"> i. revise black throated finch offset requirement in the BOS in accordance with the EPBC Act Offsets Policy and submit the revised BOS to the Minister for approval ii. management of any additional black throated finch offsets in accordance with Conditions 13 and 14 must commence prior to hydrological impacts on the Mellaluka Springs Complex, with sites being legally secured within two years of that time. <p><i>Requirements for GAB Offsets Strategy</i></p> <ol style="list-style-type: none"> k) implementation of an annual GAB offset measure, of returning at least 730 megalitres per annum to the GAB for a minimum five year period from commencement of excavation of the first box cut, to offset the predicted annual water take associated with the action. This offset measure is to achieve a measurable outcome in accordance with one or more of the following principles: <ol style="list-style-type: none"> i. reduce current extraction rates from the GAB to increase hydraulic pressure ii. increase pressure in the GAB iii. protect and rehabilitate the GAB springs

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	<p>iv. other measures consistent with government policies and strategies to protect and manage the GAB.</p> <p>l) the offset measure described in Condition 11k) is to be developed and delivered in consultation with the Queensland Government department administering the authorisation of the water take</p> <p><i>Requirements for offsets for potential subsidence, groundwater and water resource impacts</i></p> <p>m) details of how staged subsidence, groundwater and water resource impacts in the Project Area will be addressed in the BOS, including:</p> <ul style="list-style-type: none"> i. description and map of the proposed stages of underground mining. The approval holder must advise the Minister of any changes to these staging details. Underground mining Stage 1 must be consistent with the corresponding definition in these conditions ii. description of how actual subsidence, groundwater and water resource impacts for all completed stages (as defined through Condition 11m)(i)) will be assessed at each stage iii. description of the extent, magnitude and timing of actual subsidence impacts observed in completed stages (as defined through Condition 11m)(i)) iv. description of how actual subsidence and groundwater impacts from completed stages (as defined through Condition 11m)(i)) will be used to revise and update predicted impact areas for future stages v. table of predicted impact areas for each EPBC Act listed threatened species and community in Table 1 within the underground mining area (consistent with Condition 6c)) that allows comparison of actual impact areas with initial impact area predictions and updated impact area predictions. If additional impacted areas are identified as a result of the predictions, additional offsets must be implemented in line with Condition 11h) vi. written commitments from the approval holder that the balance of offset requirement at each stage (as defined through Condition 11m)(i)) will be implemented prior to commencement of that stage. <p>n) rationale for the balance of offset required for underground mining impacts to be updated at each underground mining stage (as defined through Condition 11m)(i)) that includes detailed comparison of the ecological status of EPBC Act listed threatened species and communities within the subsidence impact area between baseline conditions and the end of the most recent underground mining stage</p> <p>o) details of how groundwater and water resource impacts on the Matters of National Environmental Significance will be addressed in the BOS including identification of additional potential offsets (see Condition 6f)) for the Carmichael River and Doongmabulla Springs Complex, to be developed in consultation with the Department and relevant Queensland Government agencies</p> <p>p) detail of how the BOS will be revised and provided to the Minister for approval prior to commencement of each underground mining stage (as defined through Condition 11m)(i)) including timeframes for revision that allow three months for review and approval of the plan.</p>
Original dated 14/10/2015	<p>12. Mining operations must not commence until the BOS and the GAB Offset Strategy is approved by the Minister in writing. The approved BOS and the GAB Offset Strategy must be implemented.</p> <p><i>Note: A Biodiversity Offset Strategy is also required under the State Government approval for the project. A combined document should be prepared to address both State Government and EPBC Act approval conditions where possible.</i></p>

Date of decision	Conditions attached to approval
Variation dated 13/1/2021	<p><i>Offset area management plans</i></p> <p>13. Within four months of approval of the BOS, the approval holder must submit to the Minister for approval a management plan for each offset area proposed in the approved BOS. Each offset area management plan must address the relevant requirements of the BOS, and contain:</p> <ul style="list-style-type: none"> a) detailed baseline description of offset areas, including surveys undertaken, condition of existing Matters of National Environmental Significance and their habitats, relevant environmental values, area of primary habitat for each EPBC Act listed threatened species and community, connectivity with other habitat areas and biodiversity corridors b) management measures and offset plans for each offset area to improve the habitats of Matters of National Environmental Significance c) a table of specific goals and associated timeframes for habitat management measures for each offset area with criteria for assessing the success of habitat management measures and corrective measures to be implemented if criteria are not met. <p>If the BOS is revised, and the revised BOS is approved by the Minister, and if the revision changed the proposed offsets from those proposed in the previously approved BOS, then the approval holder must, within four months of the approval of the revised BOS, submit to the Minister for approval an offset area management plan for any new offset area and a revised offset area management plan for any altered offset area.</p>
Original dated 14/10/2015	14. Once approved, offset area management plans must be implemented.
Original dated 14/10/2015	<p><i>Biodiversity Funding</i></p> <p>15. The approval holder must establish and/or contribute to a pool of funds established for the better protection and long-term conservation of EPBC Act listed threatened species and communities listed in Table 1.</p>
Original dated 14/10/2015	16. The mechanism to establish and/or contribute to a pool of funds, including terms of reference to support a regional approach, funding mechanisms and an initial work plan, must be provided to the Minister for approval three months prior to commencement of mining operations . The mechanism may be in the form of a trust fund, or other mechanism/s as agreed by the Minister in writing.
Original dated 14/10/2015	17. The approval holder must contribute \$100 000 (GST exclusive) per annum for 10 consecutive years to the pool of funds beginning from commencement of mining operations . The approval holder must provide notice of the establishment of and/or contribution to the pool of funds to the Department in writing prior to commencement of mining operations . Documentary evidence must be provided to the Department showing that the annual financial contributions to the pool of funds have been provided within 30 calendar days of each payment.
Original dated 14/10/2015	<p>18. These funds must facilitate the development and implementation of research programs consistent with priorities to manage development impacts on EPBC Act listed threatened species and communities listed in Table 1 which are consistent with, and take into consideration, any relevant recovery plans, threat abatement plans and/or conservation advices. Research programs should identify measures to mitigate and manage the impacts on EPBC Act listed threatened species and communities listed in Table 1 and should address where relevant:</p> <ul style="list-style-type: none"> a. methodologies for a baseline survey that will report on each species' life history, movement patterns, habitat requirements and population dynamics. Survey methodologies must be in accordance with the Department's survey guidelines or alternative best practice methodologies that are agreed to in writing by the Minister prior to commencement and endorsed by a suitably qualified independent expert. The baseline survey must begin with the first year of the date of this approval

Date of decision	Conditions attached to approval
	<ul style="list-style-type: none"> b. an ongoing monitoring program (developed from the baseline monitoring) for each species, to continue for the duration of the research programs, with annual reporting to the Department c. commitments, including financial commitments and associated timeframes, that will be implemented by the approval holder to support the undertaking of research d. the time frames for undertaking each research component e. timing and methods of reporting research outcomes to the Minister, the scientific community and the public f. outcomes of consultation with the Department on how the proposed Research Programs align with other studies for EPBC Act listed threatened species and communities listed in Table 1 g. identification of priority actions for funding must be decided in consultation with the Queensland Department of Environment and Heritage Protection and members of relevant Recovery Teams.
Original dated 14/10/2015	19. A review of funding must be undertaken five years after the establishment of the pool of funds and/or the commencement of the action or as otherwise agreed by the Minister in writing. This review must take into account progress of the research programs and any subsequent on ground actions, as well as the involvement of other holders of approvals under the EPBC Act in funding and administrative arrangements. The review must be provided to the Department within six months after the five-year period.
Original dated 14/10/2015	<p>20. The approval holder must submit a 3D Seismic Survey Management Plan to the Minister for approval, allowing at least one month for approval. The Seismic Survey Management Plan must include the following information in relation to the seismic survey activities:</p> <ul style="list-style-type: none"> a. a description of seismic survey activities b. a description of impacts of seismic survey activities on Matters of National Environmental Significance c. mitigation measures for seismic survey activities d. identification of offsets for residual impacts on at least 115 ha of black throated finch habitat, to be legally secured within two years of commencement of seismic survey activities and managed in accordance with the Biodiversity Offset Strategy under Condition 12. <p><i>Note: Offset areas identified are not intended to duplicate offset areas identified in accordance with Condition 11 j).</i></p>
Original dated 14/10/2015	21. Seismic survey activities must not commence until the 3D Seismic Survey Management Plan has been approved by the Minister in writing. The approved 3D Seismic Survey Management Plan must be implemented.
Original dated 14/10/2015	22. The approval holder must submit to the Minister , within one month of this approval, a peer review of the adequacy of the current groundwater flow model to characterise groundwater impacts . This review must consider the parameters used into the groundwater flow model, the required additional modelling information and the model re-runs outlined in Condition 23. The peer review must be undertaken by a suitably qualified independent expert . The peer review report should identify any additional information requirements.
Original dated 14/10/2015	<p>23. The approval holder must provide a report to the Minister for the re-run of the groundwater flow model. The model revisions and re-runs must incorporate the following parameters in the scenarios and address the following additional information requirements:</p> <ul style="list-style-type: none"> a. re-define the current General Head Boundary (GHB) arrangement, as agreed by the Department in writing, including the following: <ul style="list-style-type: none"> i. remove the GHB from its current location in all layers to the western edge of the model domain

Date of decision	Conditions attached to approval
	<ul style="list-style-type: none"> ii. review and justify the GHB conductance values used in the model to reflect the differences between aquifers and aquitards and also between aquifers (e.g. Clematis and Colinlea Sandstones), and modify if required iii. GHB cell elevations to be re-set using data as agreed by the Department in writing iv. report on the impacts on groundwater levels and net flows between the model domain for the revised GHB boundaries and compare with previous modelling results. <ul style="list-style-type: none"> b. review and justify the recharge parameters for the Clematis Sandstone to represent the flux into the recharge beds of the GAB, and modify if required c. document outflow mechanisms used in the model for the Doongmabulla Springs Complex and individual model layers, using maps to show the spatial distribution of model discharges d. document and incorporate known licensed groundwater extractions within the model domain e. document and justify any other changes made as part of the model re-runs that are not outlined above f. as per the IESC information guidelines provide an assessment of the quality of, and risks and uncertainty inherent in, the data used in the background data and modelling, particularly with respect to predicted potential scenarios g. provide adequate data (spatially and geographically representative) to justify the conceptualisation of topographically driven flow from south to north (and west to east) in both shallow and deeper aquifers.
Original dated 14/10/2015	24. The outcomes of the model re-runs are to be reviewed in order to inform the development of the GMMP and the Rewan Formation Connectivity Research Plan, and to correct any subsequent inaccuracies in the Matters of National Environmental Significance management plan/s, prior to submitting to the Minister for approval.
Original dated 14/10/2015	<p>Research and management requirements</p> <p><i>GAB springs research plan</i></p> <p>25. At least three months prior to commencing excavation of the first box cut, the approval holder must submit for the approval of the Minister a GAB Springs Research Plan that investigates, identifies and evaluates methods to prevent, mitigate and remediate ecological impacts on the EPBC listed community of native species dependent on natural discharge of groundwater from the Great Artesian Basin (GAB Springs community), including the Doongmabulla Springs Complex, in the Galilee Basin. The GAB Springs Research Plan must include but is not limited to the following:</p> <ul style="list-style-type: none"> a. research aims and rationale with reference to existing scientific research on GAB spring hydrogeology and ecology b. identify priority actions for potential offsets to protect and manage the GAB springs c. personnel responsible for conducting research and their qualifications d. timeframes for research and reporting e. methods, including but not limited to, conceptualisation of the hydrogeology of the springs, geological and geochemical surveys to inform the source aquifer/s for the Doongmabulla Springs Complex, ecological surveys to determine the composition of the GAB springs community, an assessment of transferability of approaches to prevent and mitigate hydrological impacts on springs in the Surat Basin, determination of water requirements (including ecological response thresholds) of the GAB springs community, and development and evaluation of methods to prevent, remediate and mitigate ecological impacts

Date of decision	Conditions attached to approval
	<ul style="list-style-type: none"> f. an analysis of potential mitigation activities, such as but not limited to, re-injection to the groundwater source aquifer to maintain pressure head, flows and ecological habitat at the Doongmabulla Springs Complex g. an explanation of how research outcomes will directly inform the monitoring, management, prevention, mitigation and remediation of impacts on the Doongmabulla Springs Complex h. a peer review of the draft GAB Springs Research Plan, by a suitably qualified independent expert and a table of changes made in response to the peer review i. The GAB Springs Research Plan must be published on the proponent's website for the life of the project. Research outputs must be submitted to the Minister within ten business days of completion, and be made available for the Bioregional Assessment of the Galilee Basin sub-region and the Lake Eyre Basin and any subsequent iterations
Original dated 14/10/2015	26. The approval holder must not commence excavation of the first box cut until the GAB Springs Research Plan has been approved by the Minister in writing. The approved GAB Springs Research Plan must be implemented.
Original dated 14/10/2015	<p><i>Rewan Formation Connectivity Research Plan</i></p> <p>27. At least three months prior to commencing excavation of the first box cut, the approval holder must submit for the approval of the Minister a Rewan Formation Connectivity Research Plan ('Rewan Research Plan') that characterises the Rewan Formation within the area impacted by the mine. The Research Plan must be informed by the results of the groundwater flow model re-run (condition 23) and include but not be limited to the following:</p> <ul style="list-style-type: none"> a. research aims b. personnel responsible for conducting research and their qualifications c. timeframes for research and reporting d. methods, including, but not limited to, seismic surveys to determine the type, extent and location of fracturing, faulting and preferential pathways (including any fracturing induced by longwall mining subsidence, including any fracturing impacting on the Doongmabulla Springs Complex) and an examination of the hydraulic properties (including but not limited to petrophysical analysis and facies mapping) of the Rewan Formation, to better characterise the Rewan Formation and the contribution of fracturing, faulting and preferential pathways to connectivity, including a description of how research will be undertaken in a manner that does not cause impacts on Matters of National Environmental Significance (unless the activities will be undertaken in accordance with a plan approved pursuant to conditions of this approval) e. an explanation of how research will inform the GMMP, any regional groundwater and surface water monitoring and assessment program, or Bioregional Assessment for the Galilee Basin sub-region and the Lake Eyre Basin and any subsequent iterations f. a peer review of the Rewan Research Plan, by a suitably qualified independent expert, approved by the Minister in writing, and a table of changes made in response to the peer review
Original dated 14/10/2015	28. The approval holder must not commence excavation of the first box cut until the Rewan Research Plan has been approved by the Minister in writing. The approved Rewan Formation Connectivity Research Plan must be implemented.
Original dated 14/10/2015	<p>Standard conditions</p> <p>29. Within 30 days of the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement.</p>

Date of decision	Conditions attached to approval
Original dated 14/10/2015	30. The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans, reports, and programs required by this approval, and make them available upon request to the Department . Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act , or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.
Original dated 14/10/2015	31. Within three months of every 12 month anniversary of the commencement of the action, the approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published.
Original dated 14/10/2015	32. Upon the direction of the Minister , the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister . The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister .
Original dated 14/10/2015	33. The approval holder may choose to revise a plan or strategy approved by the Minister under conditions 3, 5, 9, 20, 25 and 27 without submitting it for approval under section 143A of the EPBC Act, if the taking of the action in accordance with the revised plan or strategy would not be likely to have a new or increased impact . If the approval holder makes this choice they must: <ul style="list-style-type: none"> a. notify the Department in writing that the approved plan or strategy has been revised and provide the Department with an electronic copy of the revised plan or strategy; b. implement the revised plan or strategy from the date that the plan or strategy is submitted to the Department; and c. for the life of this approval, maintain a record of the reasons the approval holder considers that taking the action in accordance with the revised plan or strategy would not be likely to have a new or increased impact.
Original dated 14/10/2015	33A. The approval holder may revoke their choice under condition 33 at any time by notice to the Department . If the approval holder revokes the choice to implement a revised plan or strategy, without approval under section 143A of the Act, the plan or strategy approved by the Minister must be implemented.
Original dated 14/10/2015	33B. Condition 33 does not apply if the revisions to the approved plan or strategy include changes to environmental offsets provided under the plan or strategy in relation to the matter, unless otherwise agreed in writing by the Minister . This does not otherwise limit the circumstances in which the taking of the action in accordance with a revised plan or strategy would, or would not, be likely to have new or increased impacts .
Original dated 14/10/2015	33C. If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the action in accordance with the revised plan or strategy would be likely to have a new or increased impact, then: <ul style="list-style-type: none"> a) Condition 33 does not apply, or ceases to apply, in relation to the revised plan or strategy; and b) The approval holder must implement the plan or strategy approved by the Minister. <p>To avoid any doubt, this condition does not affect any operation of conditions 33, 33A and 33B in the period before the day the notice is given.</p> <p>At the time of giving the notice the Minister may also notify that for a specified period of time that condition 33 does not apply for one or more specified plans or strategies required under the approval.</p>

Date of decision	Conditions attached to approval
Original dated 14/10/2015	33D. Conditions 33, 33A, 33B and 33C are not intended to limit the operation of section 143A of the EPBC Act which allows the approval holder to submit a revised plan or strategy to the Minister for approval.
Original dated 14/10/2015	34. If the Minister believes that it is necessary or convenient for the better protection of World Heritage properties, National Heritage places, Wetlands of international importance, listed threatened species and communities, listed migratory species, the Great Barrier Reef Marine Park or a water resource, in relation to coal seam gas development and large coal mining development to do so, the Minister may request that the approval holder make specified revisions to the management plans, reports, and programs specified in the conditions and submit the revised management plans, reports, and programs for the Minister's written approval. The approval holder must comply with any such request. The revised approved management plans, reports, and programs must be implemented. Unless the Minister has approved the revised management plans, reports, and programs, then the approval holder must continue to implement the management plans, reports, and programs originally approved, as specified in the conditions.
Original dated 14/10/2015	35. If, at any time after 10 years from the date of this approval, the approval holder has not substantially commenced the action, then the approval holder must not substantially commence the action without the written agreement of the Minister .
Original dated 14/10/2015	36. Unless otherwise agreed to in writing by the Minister , the approval holder must publish all management plans, reports, and programs referred to in these conditions of approval on their website. Each management plan, report, and program must be published on the website within one month of being approved.

Date of decision	Definitions attached to approval
Original dated 14/10/2015	<u>Approval holder</u> : The person to whom the approval is granted.
Original dated 14/10/2015	<u>Bioregional Assessment for the Galilee Basin sub-region and the Lake Eyre Basin and any subsequent iterations</u> : will be conducted in conjunction with relevant state and territory government agencies and natural resource management bodies and entails a scientific analysis of the ecology, hydrology and geology for the purpose of assessing the potential risks to water resources in the area as a result of the direct and indirect impacts of coal seam gas development and large coal mining development.
Original dated 14/10/2015	<u>Black throated finch</u> : means the Black-throated Finch (southern) (<i>Poephila cincta</i> subsp. <i>cincta</i>) listed as a threatened species under the EPBC Act
Original dated 14/10/2015	<u>Blue devil</u> : means the blue devil (<i>Eryngium fontanum</i>) listed as a threatened species under the EPBC Act
Original dated 14/10/2015	<u>Brigalow ecological community</u> : means Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant), listed as a threatened ecological community under the EPBC Act .
Original dated 14/10/2015	<u>Carmichael River</u> : the Carmichael River and its riparian zone between the Doongmabulla Springs and the Belyando River.
Original dated 14/10/2015	<u>Commencement / commence / commenced / commencing</u> : is the first instance of any specified activity. Unless the activity is specifically defined for the purposes of these conditions, commencement of an activity includes any physical disturbance including clearing of vegetation, earthworks, new road works, new rail works, construction of new camps, development of mining associated infrastructure and mining operations . Commencement does not include: <ul style="list-style-type: none"> a. erection of signage or fencing b. minor physical disturbance necessary to undertake pre-clearance surveys or establish monitoring programs or associated with the mobilisation of the plant, equipment, materials, machinery and personnel prior to the start of railway and road development or construction; or

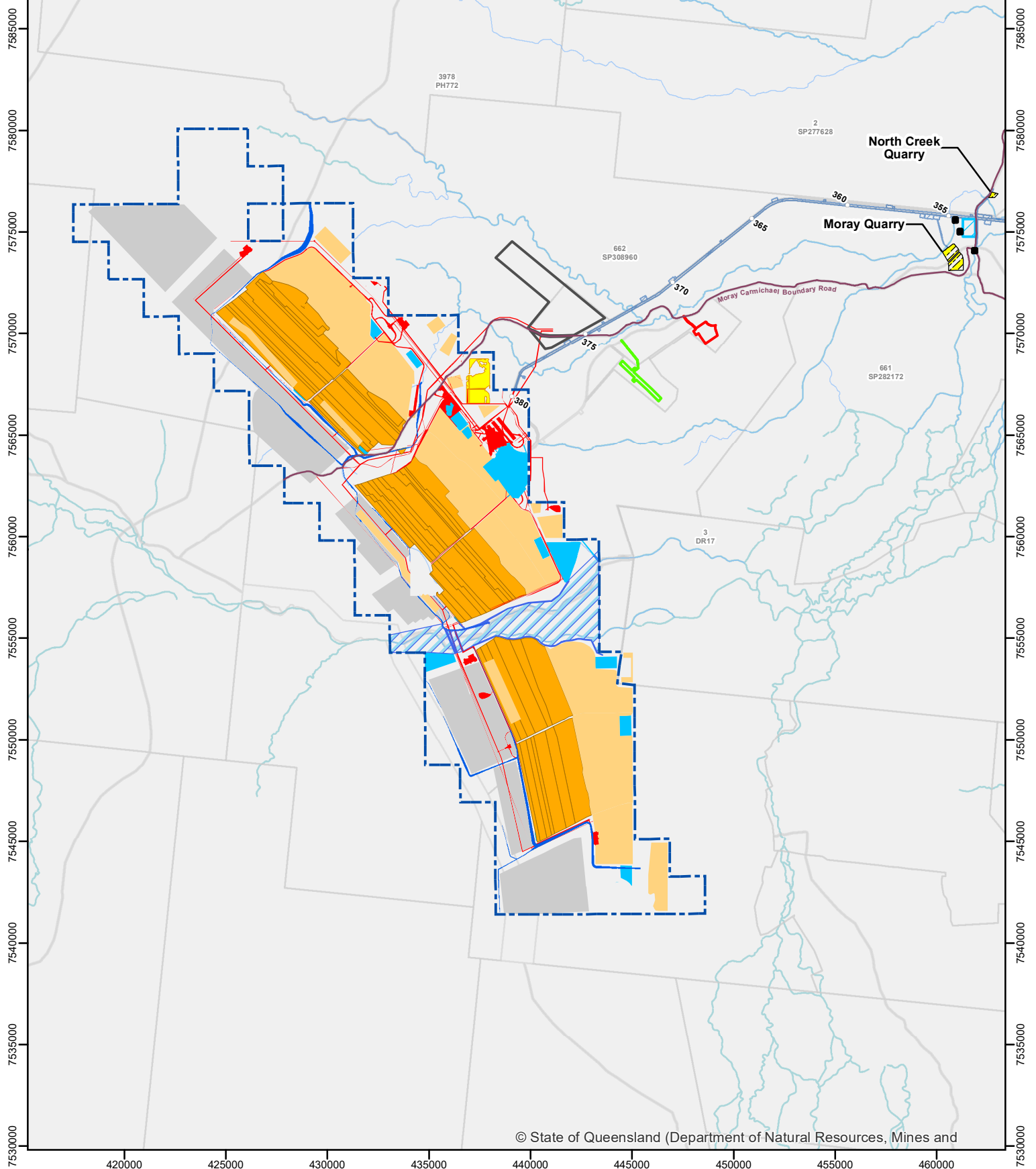
	c. activities that are critical to commencement that are associated with mobilisation of plant and equipment, materials, machinery and personnel prior to the start of mine, railway or road development or construction only if such activities will have no adverse impact on MNES, and only if the approval holder has notified the Department in writing before an activity is undertaken.
Original dated 14/10/2015	<u>Community of native species dependent on natural discharge of groundwater from the Great Artesian Basin</u> : means the community of native species dependent on natural discharge of groundwater from the Great Artesian Basin, listed as a threatened ecological community under the EPBC Act .
Original dated 14/10/2015	<u>Coordinator-General's Assessment Report</u> : The Queensland Coordinator-General (2014) <i>Carmichael Coal Mine and Rail Project: Coordinator-General's evaluation report on the environmental impact statement May 2014</i> . Department of State Development, Infrastructure and Planning, Brisbane, Queensland
Original dated 14/10/2015	<u>The Department</u> : is the Australian Government Department administering the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
Original dated 14/10/2015	<u>Doongmabulla Springs Complex</u> : the groundwater-fed springs located approximately 8 kilometres from the western edge of the mining lease boundary and consisting of springs within the spring groups identified on page 108 of the Coordinator-General's Assessment Report.
Original dated 14/10/2015	<u>Environmental values</u> : includes but is not limited to habitat for EPBC Act listed threatened species and communities and hydrology of identified water resources.
Original dated 14/10/2015	<u>EPBC/ EPBC Act</u> : means the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
Original dated 14/10/2015	<u>EPBC Act Offsets Policy</u> : means the <i>Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy</i> (October 2012).
Original dated 14/10/2015	<u>EPBC Act listed threatened species and/or community/ies</u> : means a threatened species or community, or a migratory species listed under the EPBC Act .
Original dated 14/10/2015	<u>Excavation of the first box cut</u> : means bulk earthworks excavating the first box cut required for either underground or open cut mining, which for the avoidance of doubt does not include clearing or topsoil stripping.
Variation dated 26/9/2019	<u>Galilee Basin Offset Strategy</u> : is the Queensland Government Department's <i>Galilee Basin Offset Strategy (2013)</i> or any future updated version.
Original dated 14/10/2015	<u>Groundwater conceptual model</u> : is the conceptual groundwater model developed for the project as described in the Adani Mining Pty Ltd (2013) <i>Carmichael Coal Mine and Rail Project Supplementary Environmental Impact Statement</i> at Appendix K6.
Original dated 14/10/2015	<u>Impact/s/ed</u> : as defined in section 527E of the EPBC Act .
Original dated 14/10/2015	<u>IESC Information Guidelines</u> : are <i>Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals</i> , April 2014.
Original dated 14/10/2015	<u>Legally secure</u> : means to secure a covenant or similar legal agreement in relation to a site, to provide enduring protection for the site against developments incompatible with conservation.
Original dated 14/10/2015	<u>Matters of National Environmental Significance</u> : in the context of this approval includes the following: <div style="border: 1px dashed black; padding: 5px; margin-top: 10px;"> <p><i>Listed Threatened Species and Communities</i></p> <p>Black throated finch (southern) (<i>Poephila cincta</i> subsp. <i>cincta</i>)</p> <p>Brigalow ecological community</p> <p>Ornamental snake (<i>Denisonia maculata</i>)</p> <p>Squatter pigeon (southern) (<i>Geophaps scripta</i> subsp. <i>scripta</i>)</p> <p>Waxy cabbage palm (<i>Livistona lanuginosa</i>)</p> </div>

	<p>Yakka skink (<i>Egernia rugosa</i>)</p> <p>Community of native species dependent on discharge from the Great Artesian Basin (Doongmabulla Springs Complex) including the Salt pipewort <i>Eriocaulon carsonii</i>; and the Blue devil <i>Eryngium fontanum</i></p> <p><i>Water Resources</i></p> <p>Carmichael River (Carmichael River and its riparian zone between the Doongmabulla Springs and the Belyando River)</p> <p>Mellaluka Springs Complex</p> <p>Community of native species dependent on discharge from the Great Artesian Basin (Doongmabulla Springs Complex) including the Salt pipewort <i>Eriocaulon carsonii</i>; and the Blue devil <i>Eryngium fontanum</i></p> <p>Waxy cabbage palm (<i>Livistona lanuginosa</i>)</p>
Original dated 14/10/2015	Mellaluka Springs Complex : the groundwater-fed springs located to the south-eastern section of the mine area and consisting of Mellaluka Spring, Stories Spring and Lignum Spring (refer pp. 168-169 of the <u>Coordinator-General's</u> Assessment Report).
Original dated 14/10/2015	Mining operations : are the extraction of ore from the ground as well as any immediately associated activities, including initial clearing of vegetation, removal and storage of overburden, storage of ore and dewatering, but not including exploratory surveys or the construction or operation of transport, accommodation or power generation infrastructure.
Original dated 14/10/2015	The Minister : is the Minister responsible for administering the <i>Environment Protection and Biodiversity Conservation Act 1999</i> and includes a delegate of the Minister.
Original dated 14/10/2015	New or increased impact : A new or increased impact on any matter protected by the controlling provisions for the action, when compared to the plan, program, or strategy that has been approved by the Minister.
Original dated 14/10/2015	Numerical groundwater model : means any computational method that represents an approximation of an underground water system that simulates hydraulic heads (and watertable elevations in the case of unconfined aquifers) and groundwater flow rates within and across the boundaries of the system under consideration.
Original dated 14/10/2015	Ornamental Snake : means the ornamental snake (<i>Denisonia maculata</i>), listed as a threatened species under the EPBC Act .
Original dated 14/10/2015	Project Area : all disturbance areas as defined in the maps at Appendix A. It is noted that minor alterations may be made in order to avoid Matters of National Environmental Significance or State Significant Biodiversity Values found during pre-clearance surveys. These are permitted only where they will result in a lower level of impact to these matters.
Original dated 14/10/2015	Rail (west) : is a 120 km dual gauge greenfield rail line connecting the mine as far east as Diamond Creek, to provide for the export of coal via the Port of Hay Point (Dudgeon Point expansion) and the Port of Abbot Point.
Original dated 14/10/2015	Rail (east) : is a 69 km narrow gauge portion of greenfield rail line running east from Diamond Creek to the existing Goonyella and Newlands rail systems, to provide for the export of coal via the Port of Hay Point (Dudgeon Point expansion) and the Port of Abbot Point.
Original dated 14/10/2015	Salt pipewort : means the salt pipewort (<i>Eriocaulon carsonii</i>) listed as a threatened species under the EPBC Act
Original dated 14/10/2015	Seismic survey activities : includes any activity involving ground disturbance associated with 3D seismic survey over an area of 2304 ha within mining lease EPC 1690.
Original dated 14/10/2015	Specified component : is any part of the approved action that the Minister has agreed in writing to consider individually for the purposes of these conditions, and also includes the six components specified in Table 1.
Original dated 14/10/2015	Squatter Pigeon : means the squatter pigeon (Southern) (<i>Geophaps scripta</i> subsp. <i>scripta</i>), listed as a threatened species under the EPBC Act.

Original dated 14/10/2015	<u>State approvals</u> : include any permits, licences or other authorisations, including any associated conditions, issued in relation to the action by any Queensland Government agency.
Original dated 14/10/2015	<u>Subsidence</u> : means the totality of subsidence effects and subsidence impacts ; where 'subsidence effects': means deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature; and 'subsidence impacts ': means physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs.
Original dated 14/10/2015	<u>Suitably qualified and experienced persons</u> : means persons who have professional qualifications, training, skills or experiences related to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relative protocols, standards, methods or literature
Original dated 14/10/2015	<u>Suitably qualified independent expert</u> : means a person who has professional qualifications, training, skills or experiences related to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relative protocols, standards, methods or literature
Original dated 14/10/2015	<u>Survey Guidelines</u> : include the following: Matters of National Environmental Significance, Significant Impact Guidelines 1.1, Environment Protection and Biodiversity Conservation Act 1999: http://www.environment.gov.au/epbc/publications/nes-guidelines.html Survey Guidelines for Australia's Threatened Frogs, Threatened Mammals, Threatened Reptiles and Threatened Bats: http://www.environment.gov.au/epbc/guidelines-policies.html Survey Guidelines for Australia's Threatened Birds: http://www.environment.gov.au/resource/survey-guidelines-australias-threatened-birds-guidelines-detecting-birds-listed-threatened
Original dated 14/10/2015	<u>Underground mining Stage 1</u> : means years 1-10 of underground mining including all associated activities including box cut excavation, portal construction, long wall construction and longwall panel mining. Multi seam mining within the first underground mine will occur during this time period. This definition and timing provides certainty and confidence in regards to the assessment of actual subsidence related impacts versus predicted subsidence related impacts that is required to be undertaken at the conclusion of underground mining Stage 1.
Original dated 14/10/2015	<u>Water take</u> : is extraction of water from a regulated water resource, in accordance with an authorisation by the regulating body.
Original dated 14/10/2015	<u>Waxy Cabbage Palm</u> : means the waxy cabbage palm (<i>Livistona lanuginosa</i>) listed as a threatened species under the EPBC Act .
Original dated 14/10/2015	<u>Yakka Skink</u> : means the yakka skink (<i>Egernia rugosa</i>), listed as a threatened species under the EPBC Act .

Date of decision	Appendix A
As varied on the date of this notice	Disturbance Area – Mine Domain
As varied on the date of this notice	Disturbance Area – Mine Offsite Infrastructure
As varied on the date of this notice	Disturbance Area – Project (Rail) – Map 1 of 4
As varied on the date of this notice	Disturbance Area – Project (Rail) – Map 2 of 4

Date of decision	Appendix A
As varied on the date of this notice	Disturbance Area – Project (Rail) – Map 3 of 4
As varied on the date of this notice	Disturbance Area – Project (Rail) –Map 4 of 4



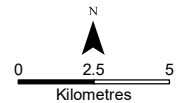
© State of Queensland (Department of Natural Resources, Mines and

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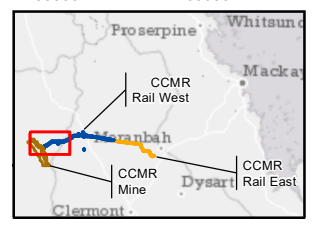
Disturbance Area Mine Domain

Date 13 November 2020 Drawn PCH
 Revision E Approved CM

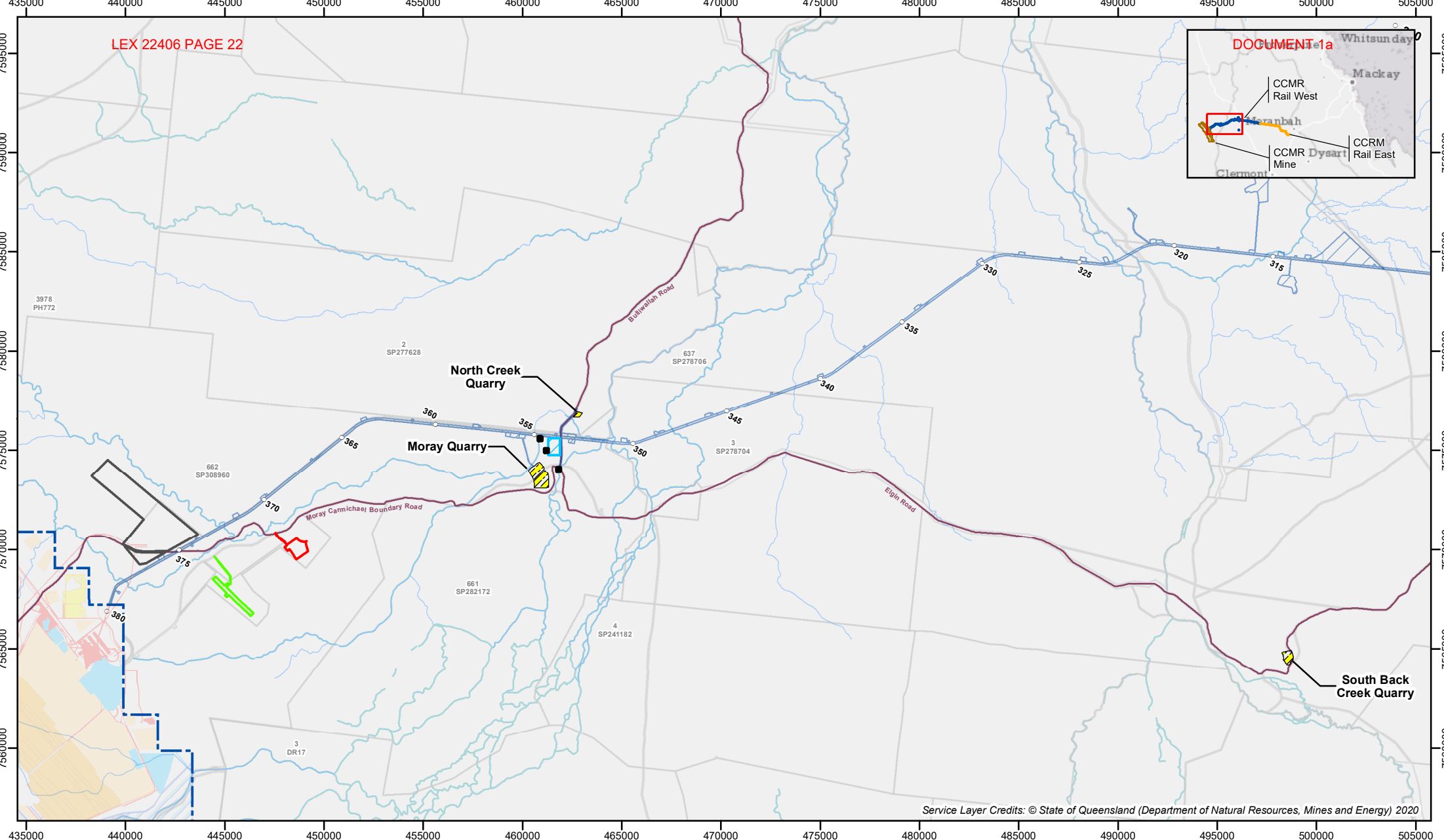
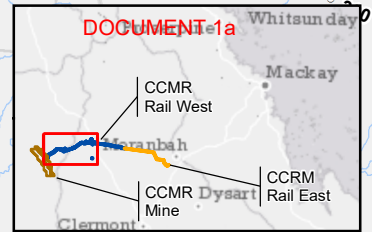
Legend	
	Mine Lease Boundary
	Local Road
	Rail
	Rail Change
	Water Course
Mine (Offsite)	
	Pump Station
	Accommodation Village
	Airport
	Industrial Area
	Storage Facility (Offstream)
Mine Domain	
	Underground mining and subsidence boundary
	Infrastructure
	Tailings drying cells
	Water storage areas
	Stream diversions
	Open-cut voids and slopes
	Out-of-pit spoil dumps
	Carmichael River corridor
	Offsite Quarry



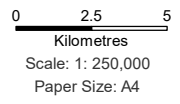
Map Projection: Transverse Mercator
 Horizontal Datum: GDA94
 Grid: GDA 1994 MGA Zone 55



Path: W1_05_GIS\Project_Wide\2020\Approvals\EPBC_Approvals_Variation_2020\201113_DisturbanceAreaMineDomainsRevE.mxd
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Date: 13 November 2020
Revision: E
Drawn: PCH
Approved: CM

Map Projection: Transverse Mercator
Horizontal Datum: GDA94
Grid: GDA 1994 MGA Zone 55

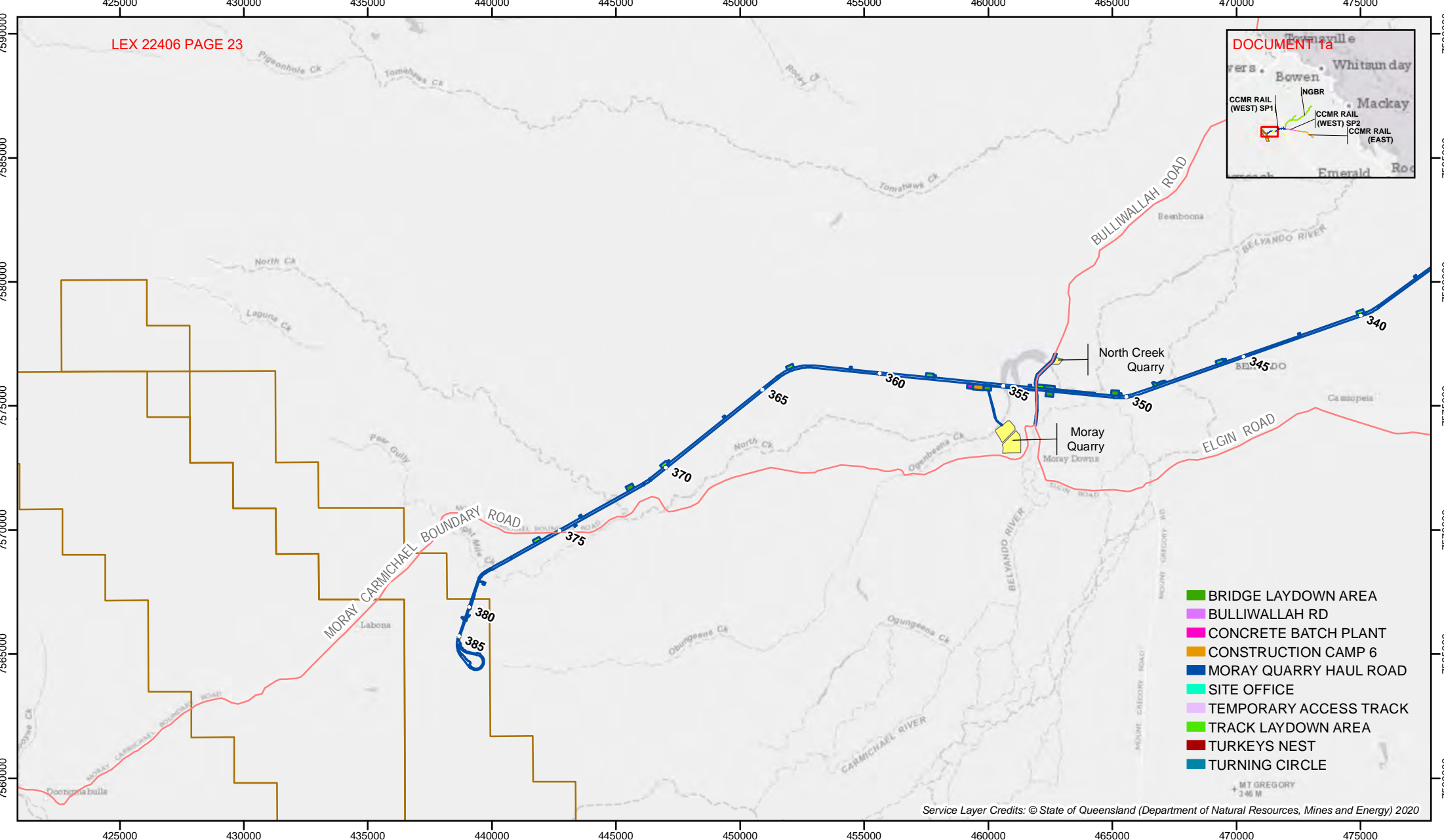
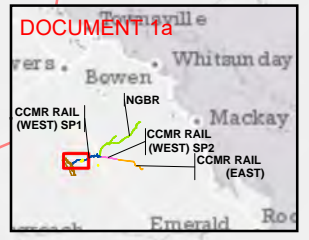
Legend

	Mine Lease Boundary		Mine Domain
	Local Road		Underground mining and subsidence boundary
	Rail		Mine Infrastructure
	Rail Chainage		Tailings drying cells
	Water Course		Water storage areas
	Pump Station		Stream diversions
	Accommodation		Open-cut voids and slopes
	Village		Out-of-pit spoil dumps
	Airport		Carmichael River corridor
	Industrial Area		Offsite Quarry
	Storage Facility (Offstream)		

adani CARMICHAEL COAL MINE AND RAIL PROJECT

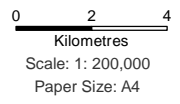
**Disturbance Area
Mine Offsite
Infrastructure**

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- BRIDGE LAYDOWN AREA
- BULLIWALLAH RD
- CONCRETE BATCH PLANT
- CONSTRUCTION CAMP 6
- MORAY QUARRY HAUL ROAD
- SITE OFFICE
- TEMPORARY ACCESS TRACK
- TRACK LAYDOWN AREA
- TURKEYS NEST
- TURNING CIRCLE

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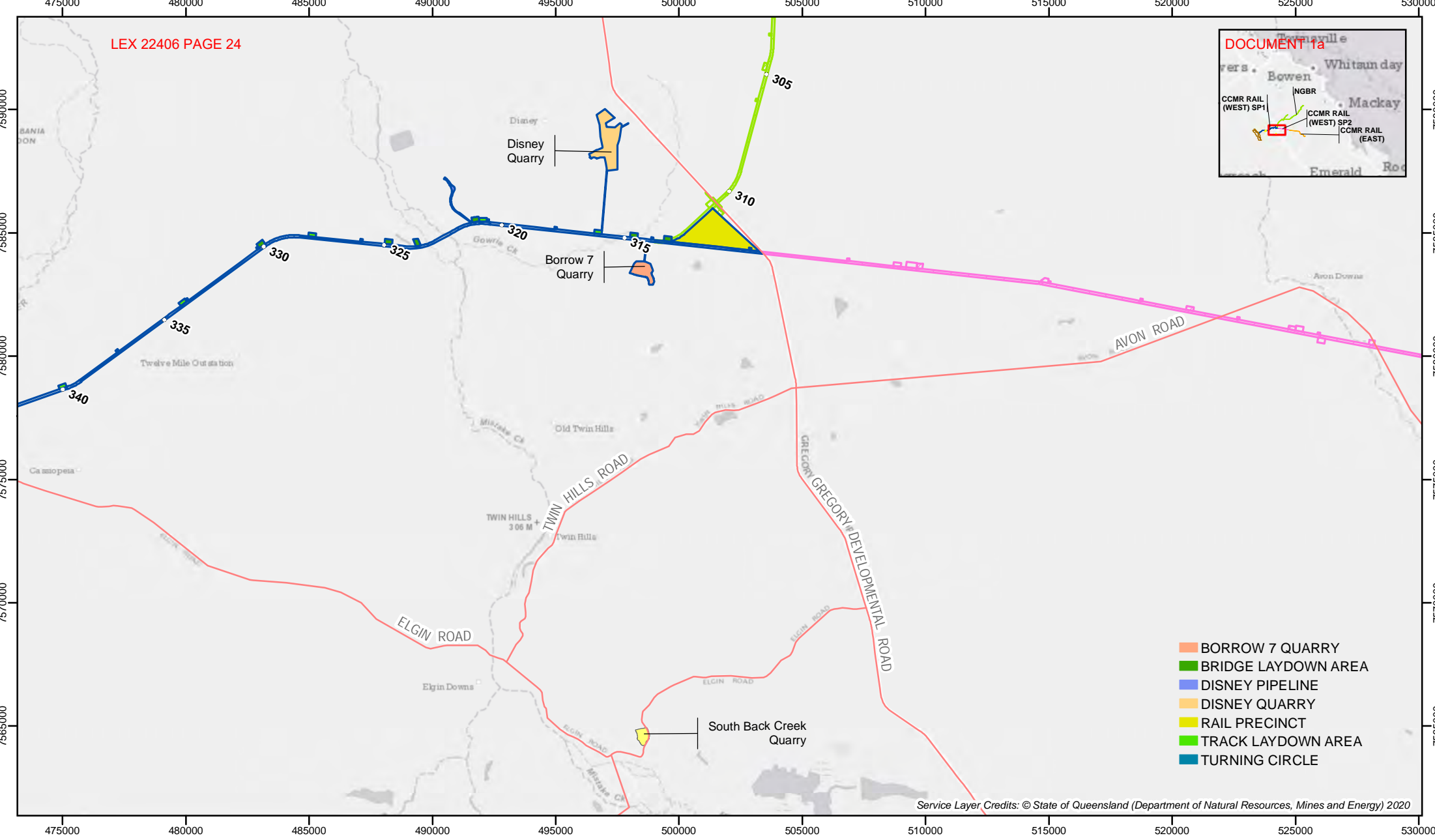
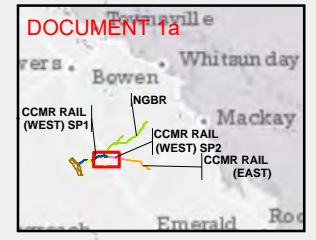
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- CHAINAGE
- CCMR MINE/OFFSITE INFRASTRUCTURE
- CCMR RAIL (WEST) SP1
- CARMICHAEL MINE LEASE BOUNDARY



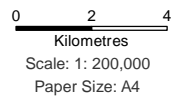
CARMICHAEL COAL MINE AND RAIL PROJECT
Disturbance Area Project (Rail)
Map 1 of 4

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- BRIDGE LAYDOWN AREA
- DISNEY PIPELINE
- DISNEY QUARRY
- RAIL PRECINCT
- TRACK LAYDOWN AREA
- TURNING CIRCLE

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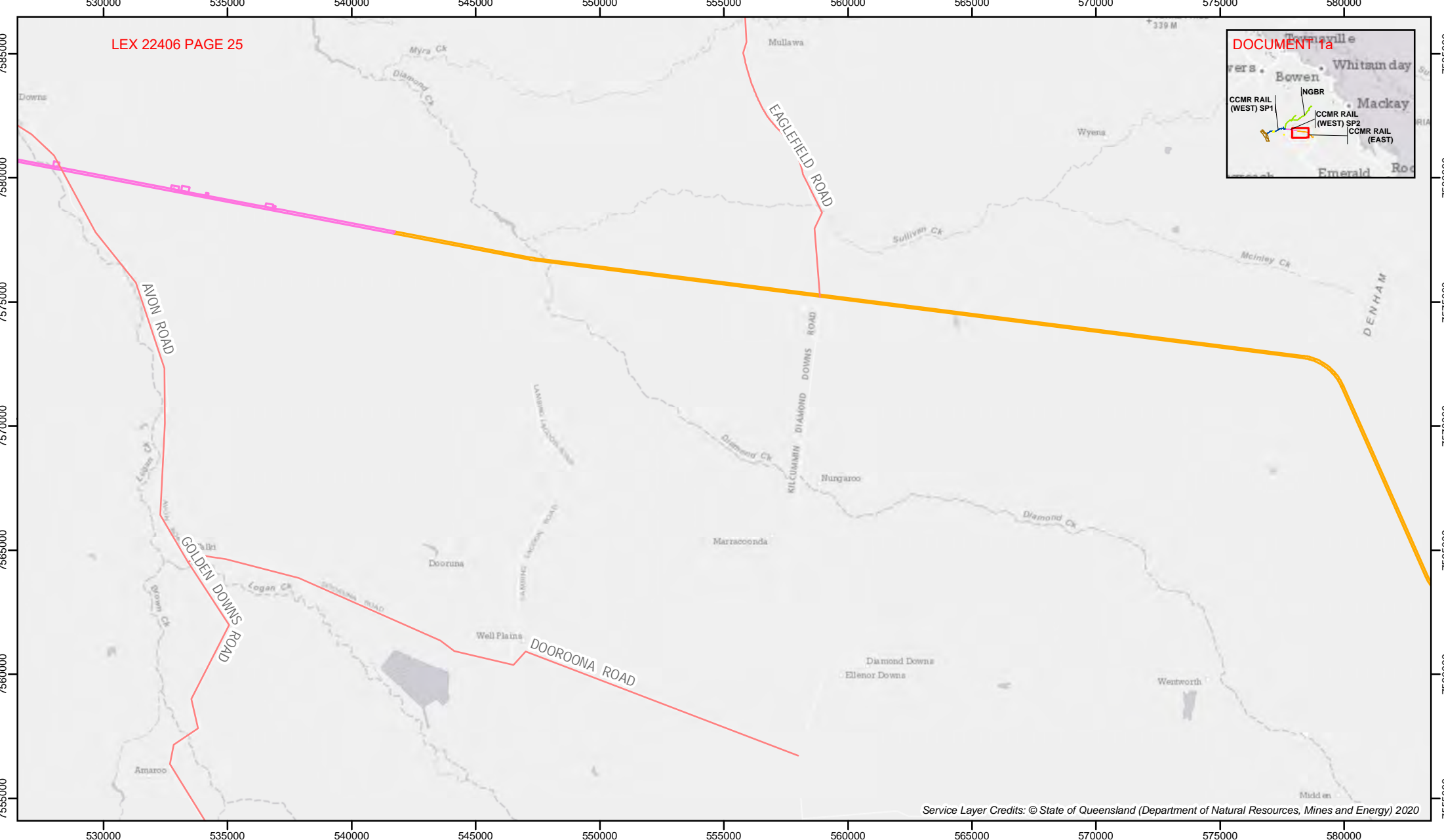
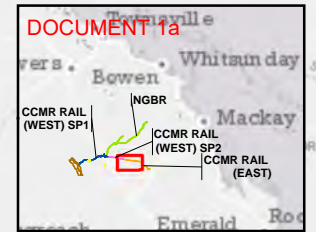
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- CHAINAGE
- CCMR MINE/OFFSITE INFRASTRUCTURE
- CCMR RAIL (WEST) SP2
- EPBC NGBR APPROVAL BOUNDARY
- CCMR RAIL (WEST) SP1

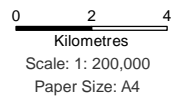


CARMICHAEL COAL MINE AND RAIL PROJECT
Disturbance Area
Project (Rail)
Map 2 of 4

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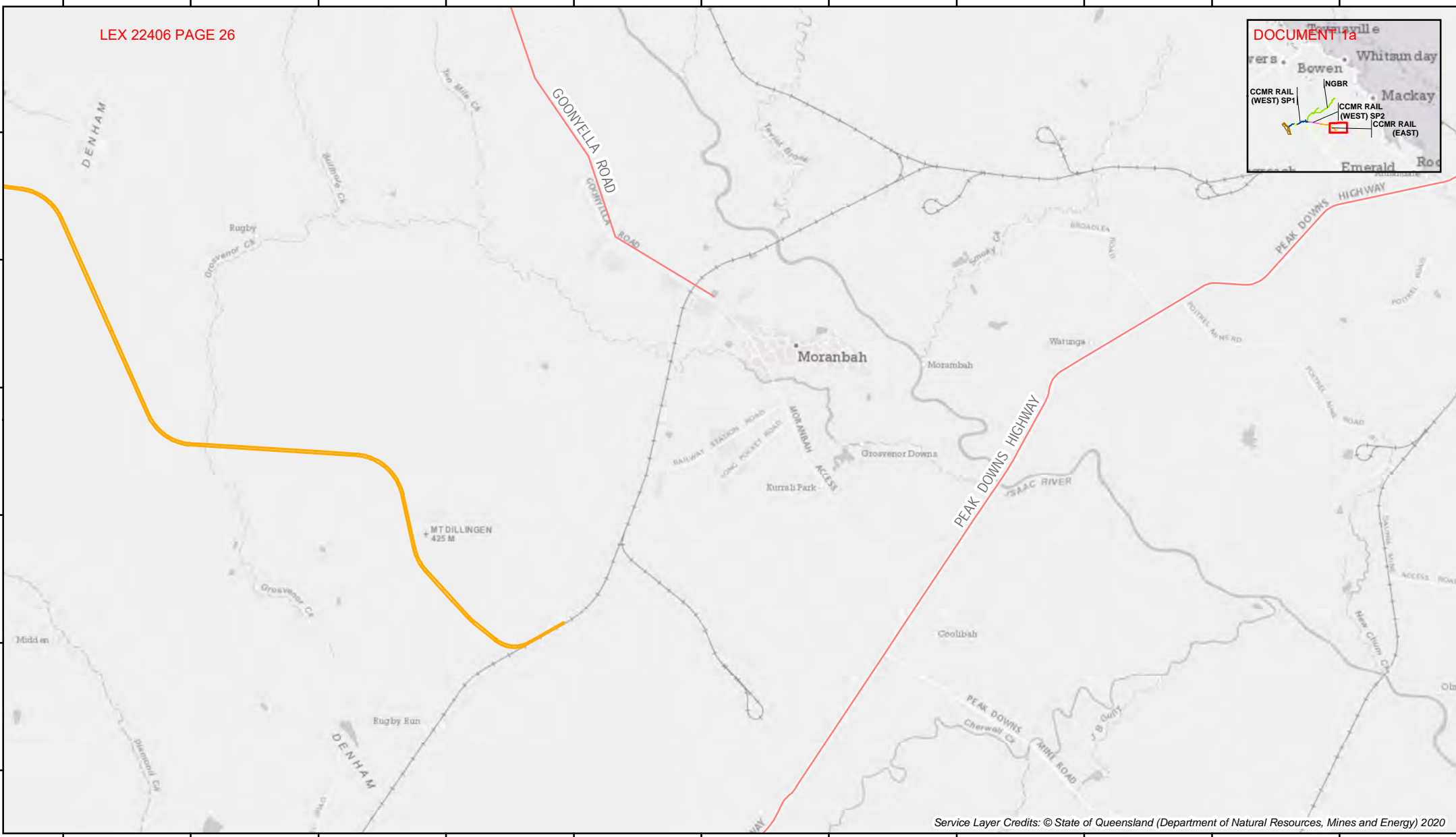
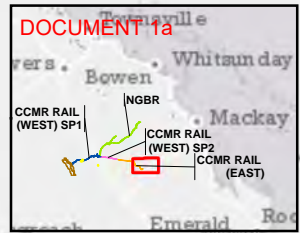
- CCMR RAIL (WEST) SP2
- CCMR RAIL (EAST)

Map Projection: Transverse Mercator
Horizontal Datum: GDA94
Grid: GDA 1994 MGA Zone 55



**CARMICHAEL COAL MINE
AND RAIL PROJECT
Disturbance Area
Project (Rail)
Map 3 of 4**

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Map Projection: Transverse Mercator
Horizontal Datum: GDA94
Grid: GDA 1994 MGA Zone 55



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LEGEND

 CCMR RAIL (EAST)



**CARMICHAEL COAL MINE
AND RAIL PROJECT**

**Disturbance Area
Project (Rail)
Map 4 of 4**



Australian Government
Department of Agriculture, Water and the Environment

Ref: 2010/5736

Mr David Boshoff
CEO, Adani Mining Pty Ltd
Bravus Mining & Resources
GPO Box 2569
BRISBANE QLD 4001

**Carmichael Coal Mine and Rail Infrastructure Project, Queensland –
EPBC 2010/5736 - Variation of approval conditions – Appendix A**

Dear Mr Boshoff

Thank you for your correspondence, dated 17 February 2021, to the Department requesting the variation of the conditions attached to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval for the Carmichael Coal Mine and Rail Infrastructure Project, Queensland (EPBC 2010/5736) to replace Appendix A. This action was approved under the EPBC Act on 14 October 2015.

As delegate of the Minister, I have varied the conditions attached to EPBC Act approval 2010/5736 under section 143(1)(c) of the EPBC Act. The action must now be undertaken in accordance with the varied conditions specified in the variation notice, which has been attached for your information.

As you are aware, the Department has an active monitoring program, which includes monitoring inspections, desk top document reviews and audits. Please ensure that you maintain accurate records of all activities associated with, or relevant to, the conditions of approval so that they can be made available to the Department on request.

Should you require any further information please contact [s. 22\(1\)\(a\)\(ii\)](#) , Post Approvals Section, on [s. 22\(1\)\(a\)\(ii\)](#) or by email: [s. 22\(1\)\(a\)\(ii\)](#)

Yours sincerely

A handwritten signature in black ink, appearing to read 'Kim Farrant', written over a white background.

Kim Farrant
Assistant Secretary
Assessments (Vic, Tas) and Post Approvals Branch
Environment Approvals Division

15 March 2021

Att. EPBC 2010/5736 Variation Notice

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17 February 2021

Attention: s. 22(1)(a)(ii)
Department of Agriculture, Water and Environment
By email s. 22(1)(a)(ii)

RE: Request to vary a condition attached to the Carmichael Coal Mine and Rail Project EPBC 2010/5736

Dear s. 22(1)(a)(ii)

Please note, this correspondence including its enclosures is strictly confidential and comprises commercial in confidence information, and as such, is exempt from disclosure under the *Freedom of Information Act 1982* (Cth). It is provided to the Department of Agriculture, Water and the Environment (the **Department**) on the understanding that it will be kept confidential, and that the Department will not disclose this letter or its contents to any third party without our prior written consent.

Adani Mining Pty Ltd (**Adani**) is writing to the Department to request an amendment to a condition of the Commonwealth Approval EPBC 2010/5736 (the **Approval**), specifically to Appendix A of the Approval in accordance with section 143(1B) of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

Through the refinement of construction and operational design to minimise stakeholder impacts, to improve the efficiency of both the construction and operation phases of the project and to reduce environmental impacts, Adani has identified a number of design changes to the location of temporary and permanent project infrastructure.

Adani is seeking to remove the current maps in Appendix A of the Approval and replace it with the following revised maps, copies of which are **enclosed**:

- Disturbance Area – Mine Domains
- Disturbance Area – Offsite Infrastructure
- Disturbance Area – Project (Rail) Page 1 of 4
- Disturbance Area – Project (Rail) Page 2 of 4

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- Disturbance Area – Project (Rail) Page 3 of 4
- Disturbance Area – Project (Rail) Page 4 of 4

These maps incorporate those design changes noted above and an assessment of these changes with respect to Matters of National Environmental Significance (**MNES**) listed under the Approval has been completed. Where there are no design changes, the maps remain consistent with the existing Appendix A mapping.

The assessment was undertaken using targeted preclearance surveys of MNES. Where project changes did not involve any impact to MNES, these changes have been implemented as per Condition 2 of the Approval.

Where preclearance surveys indicated project design changes may have an impact to MNES, minor alterations to the project footprint have been made in order to both avoid and result in a lower level of impact to MNES, as per the relevant sections in the Definitions of the Approval.

The revised Appendix A maps incorporate these project design changes. By way of assistance:

- Attachment 1 to this correspondence provides a summary of the net impacts to MNES as described through pre-clearance surveys.
- Appendix 2 to this correspondence describes the changes to the respective maps in Appendix A.

We trust that the information in this letter and attached provides sufficient material to support the proposed amendment of the Approval conditions.

If you have any questions, please do not hesitate to contact me on 07 4430 6800.

Yours sincerely

s. 47F(1)

[David Boshoff \(Feb 18, 2021 08:42 GMT+10\)](#)

David Boshoff

CEO, Adani Mining Pty Ltd

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Attachment 1: Summary of MNES Impacts

MNES	Impact Area (ha)		Net Difference (ha)
	Preclearance survey data for EIS approved project areas (current Appendix A)	Preclearance survey data for project design changes (proposed Appendix A)	
Black-throated Finch	46.87	42.89	-3.98
Squatter Pigeon	387.98	351.91	-36.07
Yakka Skink	62.30	31.96	-30.34
Ornamental Snake	310.6	298.16	-12.44
Waxy Cabbage Palm	0	0	0
Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant)	0.99	0.85	-0.14
Community of native species dependent on discharge from the Great Artesian Basin (Doongmabulla Springs Complex) including the Salt pipewort <i>Eriocaulon carsonii</i>, and the Blue devil <i>Eryngium fontanum</i>.	0	0	0

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Attachment 2: Maps for inclusion in Appendix A

The following table describes the proposed maps to form Appendix A with respect to project design changes.

Existing Appendix A Map	Proposed Appendix A Map Reference	Description of design changes
Disturbance Area – Mine Domains	Disturbance Area – Mine Domains	Map has been presented to focus on Mine Domains and incorporates design changes to on lease infrastructure such as water storage, roads, pipelines, airport, rail loop, laydown areas.
Disturbance Area – Offsite Infrastructure	Disturbance Area – Offsite Infrastructure	Incorporates design changes to temporary and permanent rail infrastructure to reflect changes to a narrow-gauge solution. Updated off lease infrastructure boundaries following land and native title agreement process.
Disturbance Area – Project (Rail) Page 1 of 4	Disturbance Area – Project (Rail) Page 1 of 4	Incorporates design changes to temporary and permanent rail infrastructure to reflect changes to a narrow-gauge solution.
Disturbance Area – Project (Rail) Page 2 of 4	Disturbance Area – Project (Rail) Page 2 of 4	Incorporates design changes to temporary and permanent rail infrastructure to reflect changes to a narrow-gauge solution. Shows connection to the NGBR Project (EPBC 2013/6885)
Disturbance Area – Project (Rail) Page 3 of 4	Disturbance Area – Project (Rail) Page 3 of 4	No design changes
Disturbance Area – Project (Rail) Page 4 of 4	Disturbance Area – Project (Rail) Page 4 of 4	No design changes

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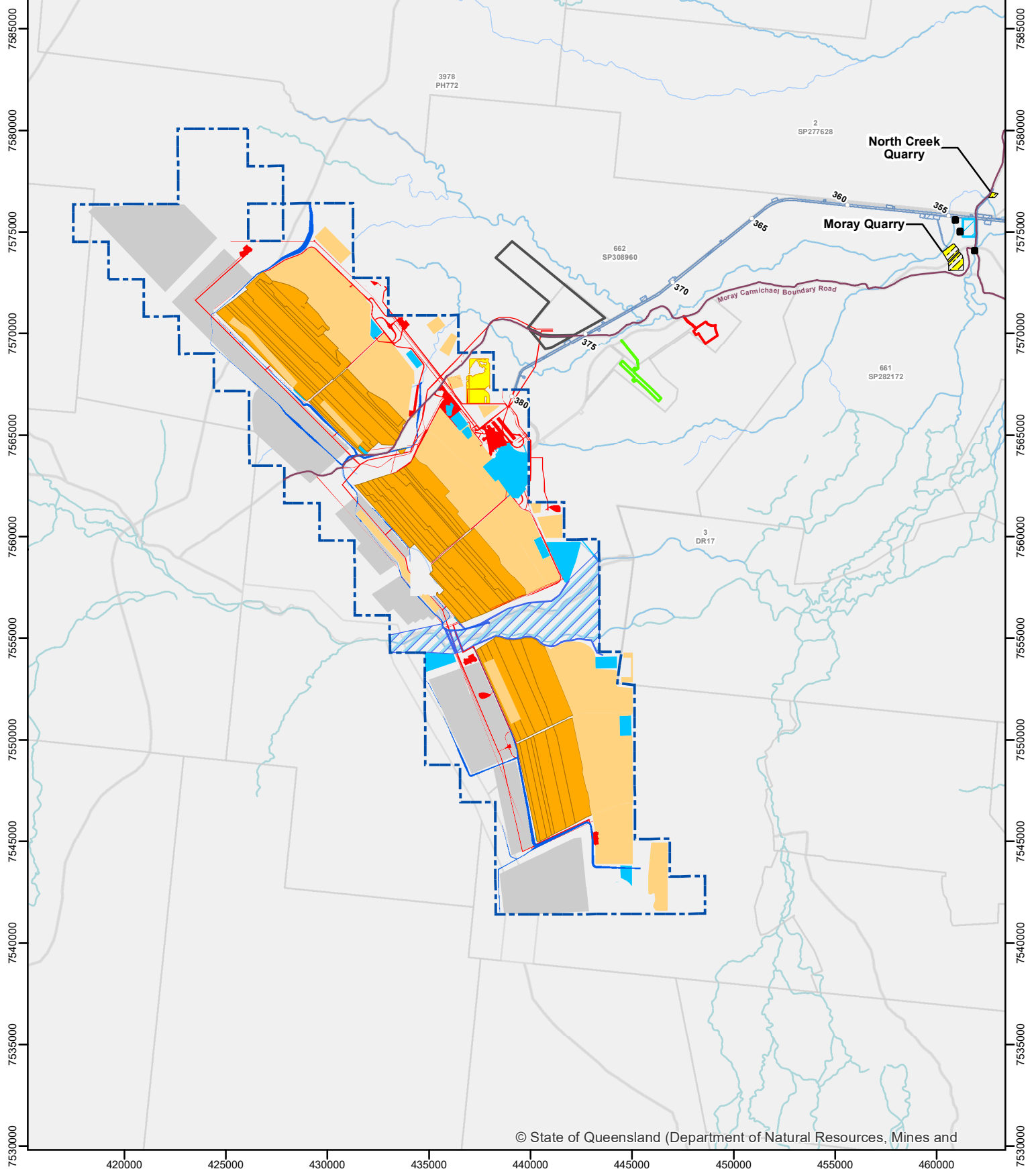
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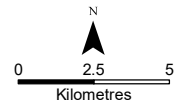
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adani CARMICHAEL COAL MINE AND RAIL PROJECT

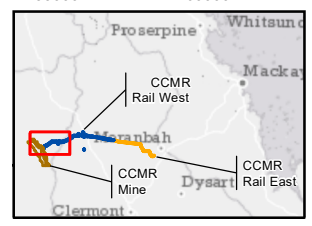
**Disturbance Area
Mine Domain**

Date 13 November 2020 Drawn PCH
Revision E Approved CM

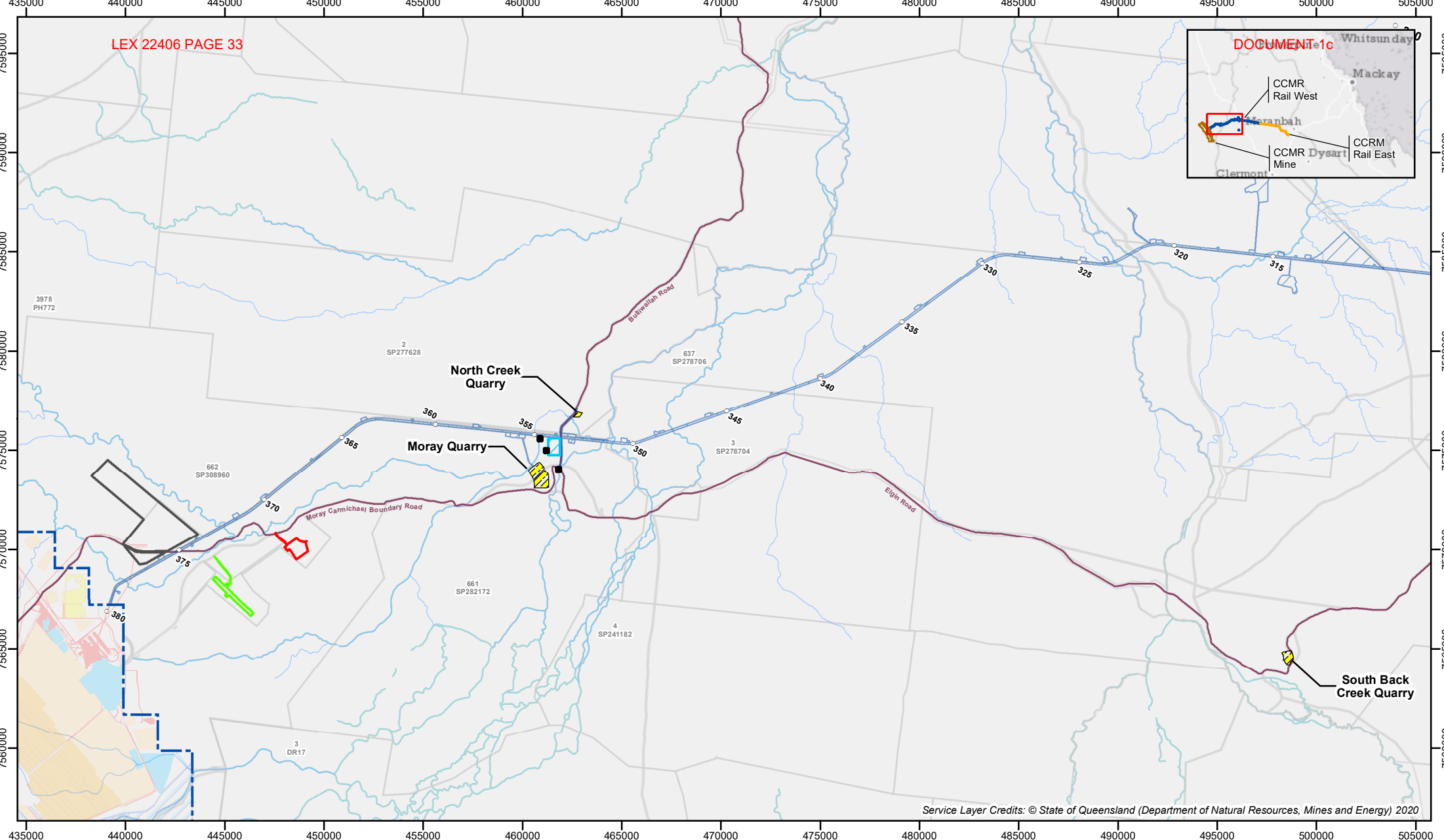
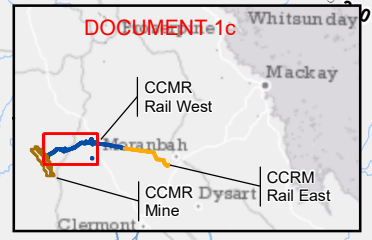
Legend	
	Mine Lease Boundary
	Local Road
	Rail
	Rail Change
	Water Course
	Pump Station
	Accommodation Village
	Airport
	Industrial Area
	Storage Facility (Offstream)
	Underground mining and subsidence boundary
	Infrastructure
	Tailings drying cells
	Water storage areas
	Stream diversions
	Open-cut voids and slopes
	Out-of-pit spoil dumps
	Carmichael River corridor
	Offsite Quarry



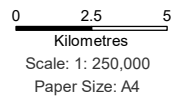
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Map Projection: Transverse Mercator
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Grid: GDA 1994 MGA Zone 55

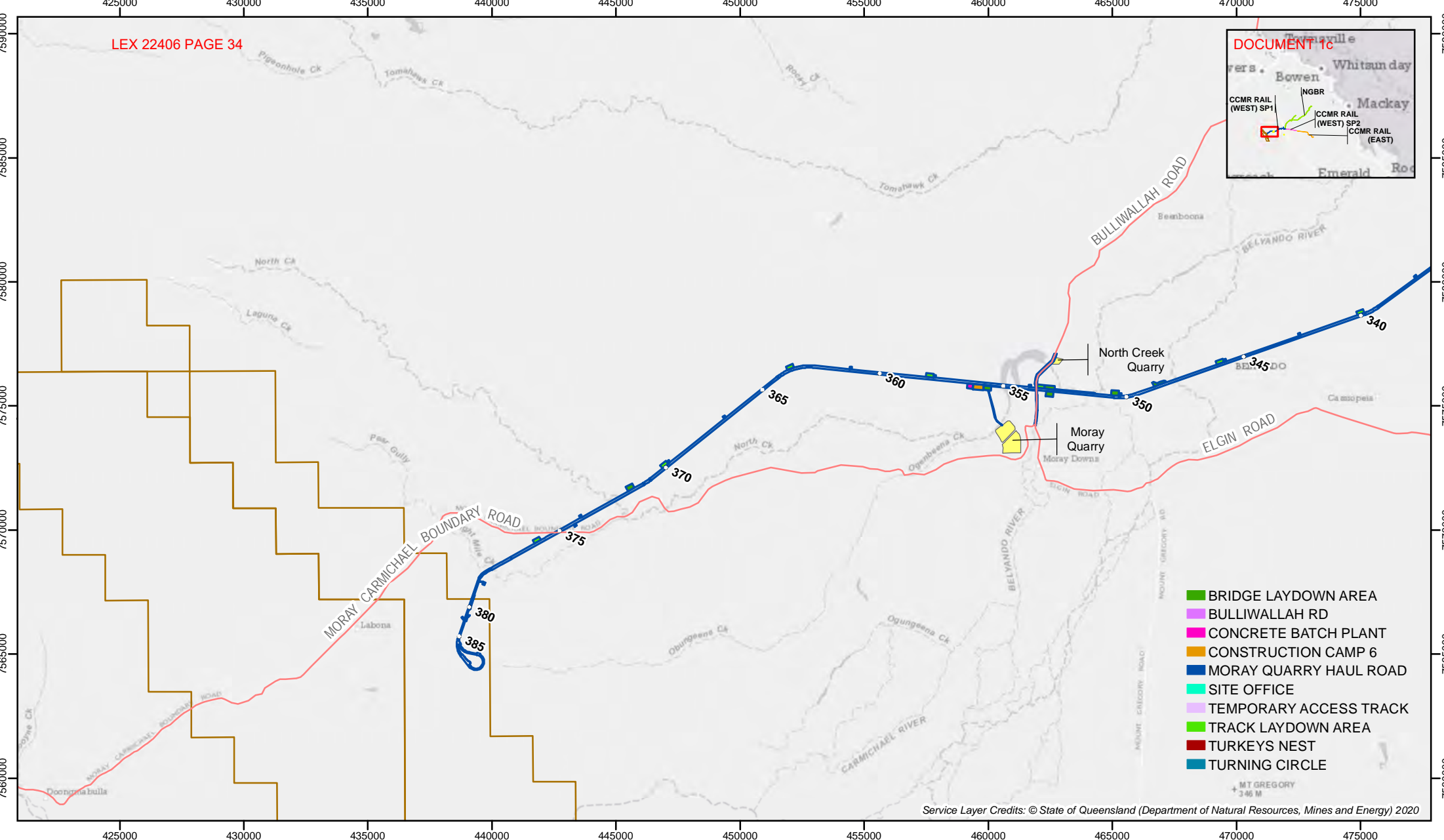
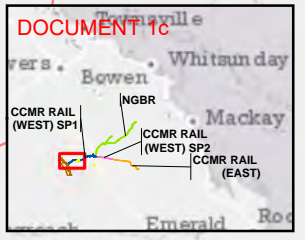
Legend

	Mine Lease Boundary		Mine Domain
	Local Road		Underground mining and subsidence boundary
	Rail		Mine Infrastructure
	Rail Chainage		Tailings drying cells
	Water Course		Water storage areas
	Pump Station		Stream diversions
	Accommodation Village		Open-cut voids and slopes
	Airport		Out-of-pit spoil dumps
	Industrial Area		Carmichael River corridor
	Storage Facility (Offstream)		Offsite Quarry

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**Disturbance Area
Mine Offsite
Infrastructure**

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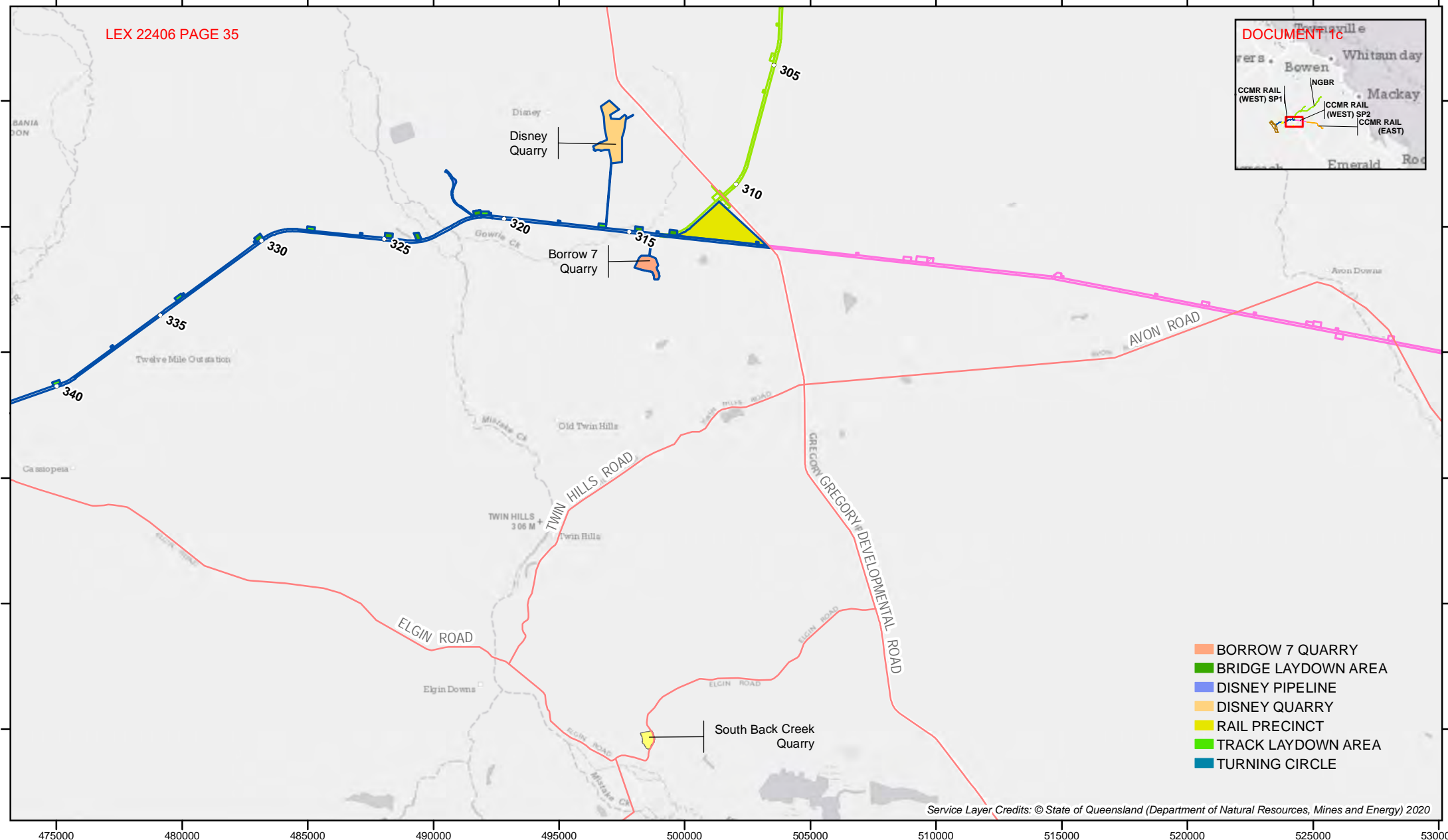
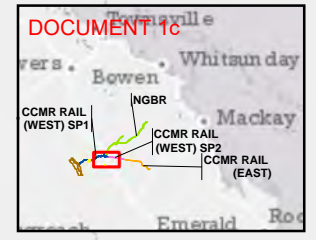
- CHAINAGE
- CCMR MINE/OFFSITE INFRASTRUCTURE
- CCMR RAIL (WEST) SP1
- CARMICHAEL MINE LEASE BOUNDARY



CARMICHAEL COAL MINE AND RAIL PROJECT

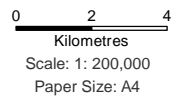
**Disturbance Area Project (Rail)
Map 1 of 4**

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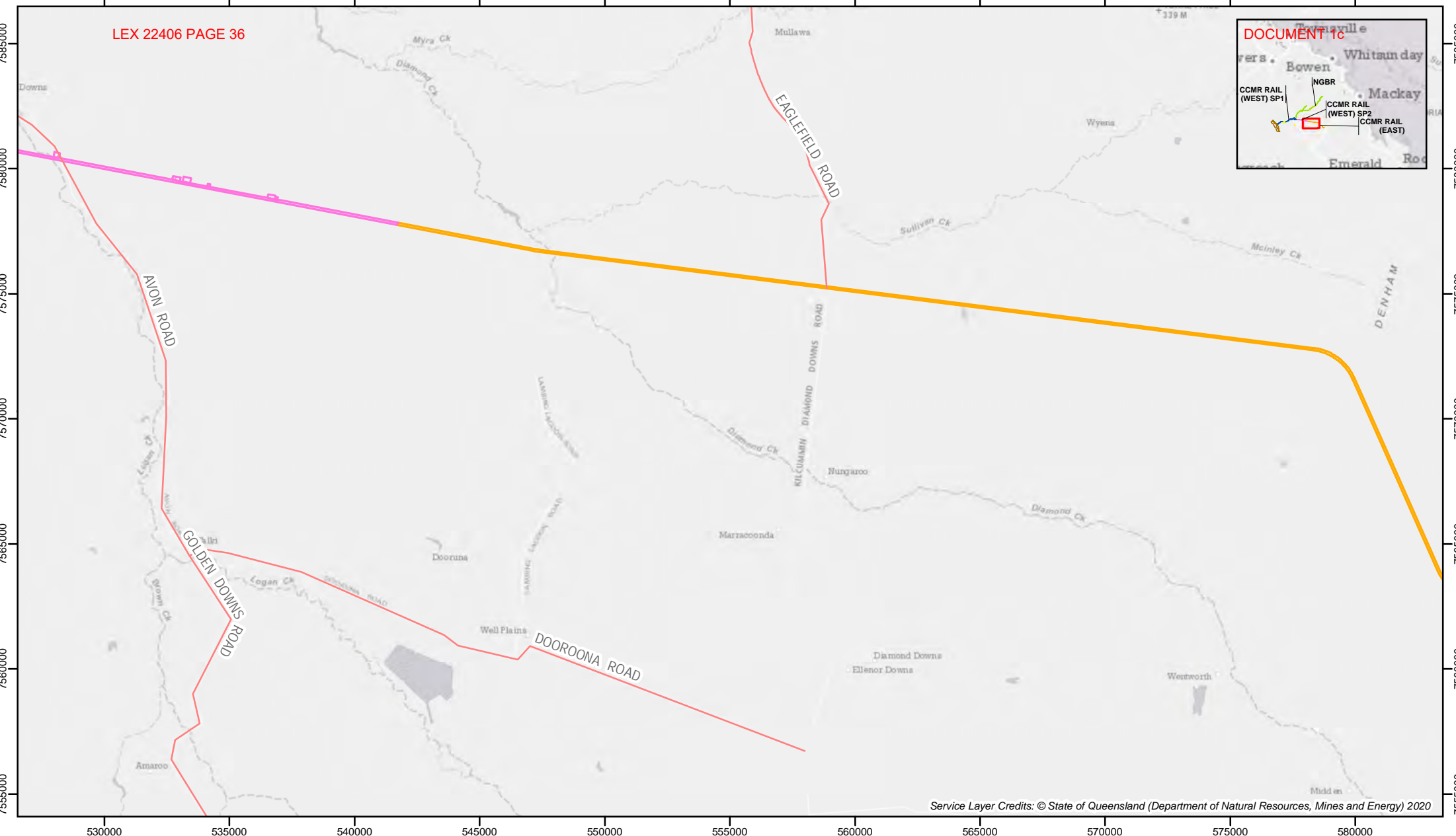
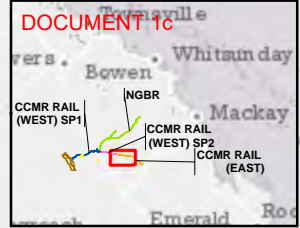
LEGEND

- CHAINAGE
- CCMR MINE/OFFSITE INFRASTRUCTURE
- CCMR RAIL (WEST) SP2
- EPBC NGBR APPROVAL BOUNDARY
- CCMR RAIL (WEST) SP1

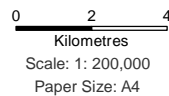


CARMICHAEL COAL MINE AND RAIL PROJECT
Disturbance Area
Project (Rail)
Map 2 of 4

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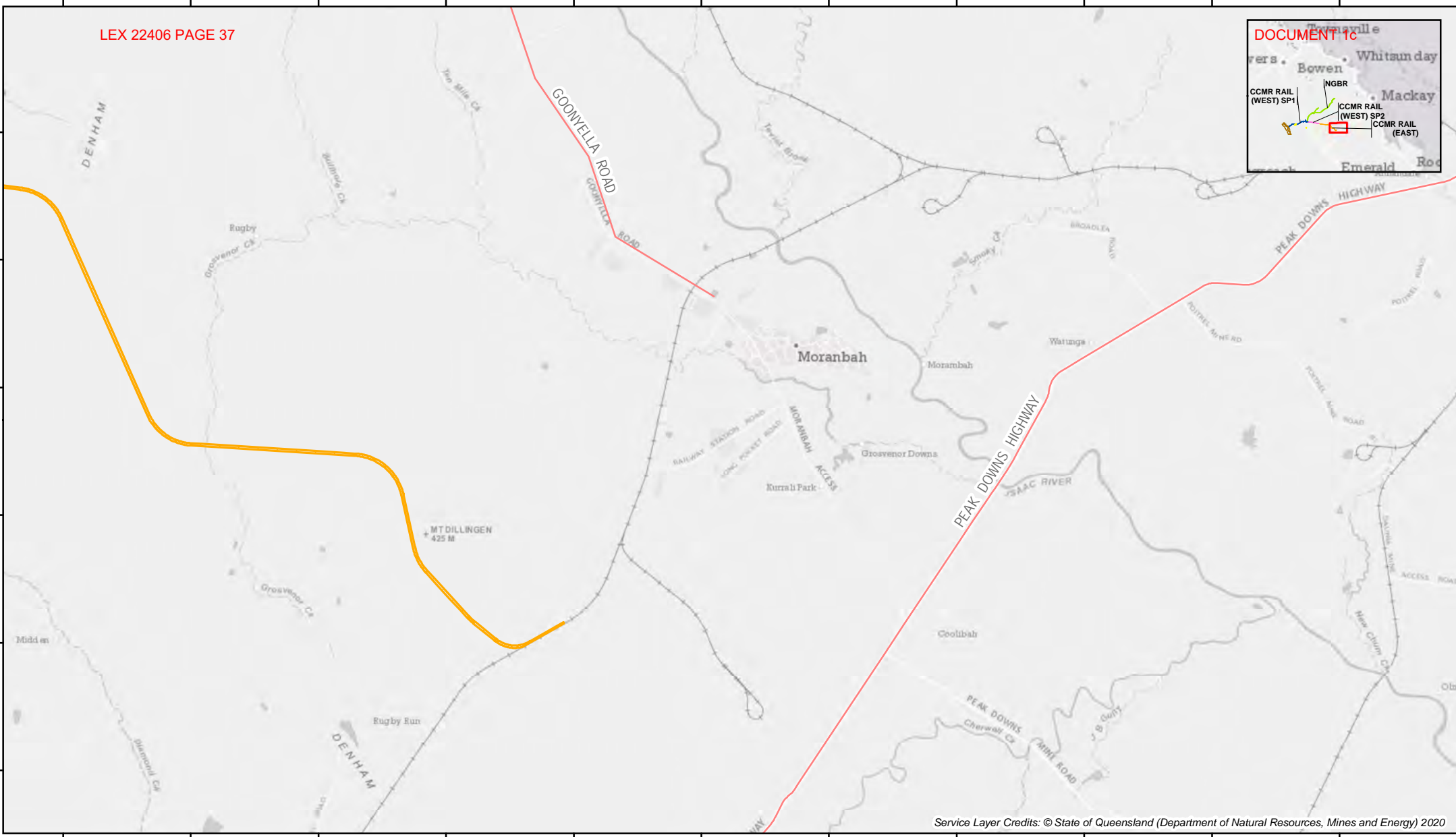
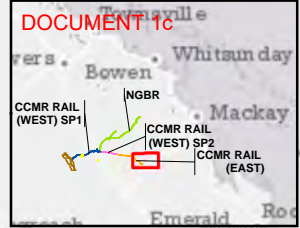
- CCMR RAIL (WEST) SP2
- CCMR RAIL (EAST)

Map Projection: Transverse Mercator
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**CARMICHAEL COAL MINE
AND RAIL PROJECT
Disturbance Area
Project (Rail)
Map 3 of 4**

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Date: 13 November 2020
Revision: E
Drawn: CMM
Approved: CM

LEGEND

 CCMR RAIL (EAST)



**CARMICHAEL COAL MINE
AND RAIL PROJECT**

**Disturbance Area
Project (Rail)
Map 4 of 4**



Australian Government

Department of Agriculture, Water and the Environment

VARIATION OF CONDITIONS ATTACHED TO APPROVAL Carmichael Coal Mine and Rail Infrastructure Project, Queensland (EPBC 2010/5736)

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Approved action

Person to whom the approval is granted	Adani Mining Pty Ltd ACN: 145 455 205
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Approved action	To develop an open cut and underground coal mine, 189 km rail link and associated infrastructure approximately 160 km north west of Clermont in central Queensland [see EPBC Act referral 2010/5736 and approved variations dated 19 April 2012, 9 October 2012 and 24 July 2013]
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Variation

Variation of conditions attached to approval	The variation is: Delete conditions 8 and 13 attached to the approval and substitute with the conditions specified in table below
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Date of effect	This variation has effect on the date the instrument is signed
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Person authorised to make decision

Name and position	Dwaine McMaugh Acting Assistant Secretary Assessments (Vic, Tas) and Post Approvals Branch
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Signature	
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Date of decision	13 January 2021
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Date of decision	Conditions attached to approval
Original dated 14/10/2015	1. The Minister may determine that a plan, strategy or program approved by the Queensland Government satisfies a plan, strategy or program required under these conditions.
Original dated 14/10/2015	<p>Project area</p> <p>2. For the purpose of the action, the approval holder must not clear vegetation outside the Project Area shown at <u>Appendix A</u> unless targeted surveys have demonstrated that Matters of National Environmental Significance are unlikely to be impacted.</p>
Original dated 14/10/2015	<p>Groundwater management and monitoring plan</p> <p>3. At least three months prior to commencing excavation of the first box cut, the approval holder must submit to the Minister for approval a Groundwater Management and Monitoring Plan (GMMP). The GMMP must be informed by the results of the groundwater flow model re-run (condition 23) and contain the following:</p>
	<ul style="list-style-type: none"> a. details of a groundwater monitoring network that includes: <ul style="list-style-type: none"> i. control monitoring sites ii. sufficient bores to monitor potential impacts on the Great Artesian Basin (GAB) aquifers (whether inside or outside the Project Area) iii. a rationale for the design of the monitoring network with respect to the nature of potential impacts and the location and occurrence of Matters of National Environmental Significance (whether inside or outside the Project Area). b. baseline monitoring data c. details of proposed trigger values for detecting impacts on groundwater levels and a description of how and when they will be finalised and subsequently reviewed in accordance with state approvals d. details of groundwater level early warning triggers and impact thresholds for the Doongmabulla Springs Complex, informed by groundwater modelling and corrective actions and/or mitigation measures to be taken if the triggers are exceeded where caused by mining operations, to ensure that groundwater drawdown as a result of the project does not exceed an interim threshold of 0.2 metres at the Doongmabulla Springs Complex <ul style="list-style-type: none"> i. the early warning triggers and impact thresholds must be informed by groundwater modelling in accordance with Conditions 3.e.i, 22, 23 and 24 and the relevant requirements of the environmental authority held under the Environmental Protection Act (1994) Qld (in particular requirements arising in response to the conditions at Appendix 1, Section 1, Schedule E of the Coordinator-General's Assessment Report) ii. the interim drawdown threshold required under condition 3.d. may be replaced with a new drawdown threshold, if the approval holder applies to the Minister for approval to change it, and submits further evidence supported by further groundwater modelling and other scientific investigations (such as those required in conditions 25 and 27), that a new drawdown threshold will ensure the protection and long-term viability of the Doongmabulla Springs Complex e. details of the timeframe for a regular review of the GMMP in accordance with the requirements of the environmental authority issued under the <i>Environmental Protection Act 1994</i> (Qld), and subsequent updates of the GMMP, including how each of the outcomes of the following will be incorporated: <ul style="list-style-type: none"> i. independent review and update of the groundwater conceptual model, as well as the numerical groundwater model and water balance calculations as necessary, to incorporate monitoring data

Date of decision	Conditions attached to approval
	<ul style="list-style-type: none"> ii. future baseline research required by the Queensland Coordinator-General into the Mellaluka Springs Complex (Appendix 1, Section 3, Condition 1 of the Coordinator-General's Assessment Report) iii. the GAB Springs Research Plan (Conditions 25 and 26) iv. the Rewan Formation Connectivity Research Plan (Conditions 27 and 28). f. provisions to make monitoring data available to the Department and Queensland Government authorities (if requested) on a six monthly basis for inclusion in any cumulative impact assessment, regional water balance model, bioregional assessment or relevant research required by the Bioregional Assessment of the Galilee Basin sub-region and the Lake Eyre Basin and any subsequent iterations g. provisions to make monitoring results publicly available on the approval holder's website for the life of the project h. a peer review by a suitably qualified independent expert and a table of changes made in response to the peer review.
Original dated 14/10/2015	<p>4. The approval holder must not commence excavation of the first box cut until the GMMP has been approved by the Minister in writing. The approved GMMP must be implemented.</p> <p><i>Note: Many elements of the GMMP are also required under the state approval for the project. Where possible, a combined document should be prepared that addresses both state government and EPBC Act approval conditions.</i></p>
Original dated 14/10/2015	<p>Matters of National Environmental Significance management plan/s</p> <p>5. At least three months prior to commencement of mining operations, the approval holder must submit to the Minister for approval Matters of National Environmental Significance plan/s for the management of direct and indirect impacts of mining operations on MNES.</p> <p><i>Note: If the MNESMP does not address any specific future activities (e.g. possible additional seismic surveys or specific mining stages) it should be updated in accordance with Condition 33.</i></p>
Original dated 14/10/2015	<p>6. The MNESMP must incorporate the results of the groundwater flow model re-run (condition 23) where relevant, and be consistent with relevant recovery plans, threat abatement plans and approved conservation advices and must include:</p> <ul style="list-style-type: none"> a. a description of environmental values for each of the Matters of National Environmental Significance addressed in the plan b. details of baseline and impact monitoring measures to be implemented for each of the Matters of National Environmental Significance including control and impact sites to be monitored throughout the life of the project. The monitoring must provide sufficient data to quantify likely impacts resulting from mining operations, including subsidence and changes in groundwater levels, to set habitat management goals (Conditions 6e) and 6f)) c. details of potential impacts, including area of impact, on each of the Matters of National Environmental Significance from mining operations, including impacts from: <ul style="list-style-type: none"> i. vegetation clearing ii. subsidence from underground mining, including subsidence induced fracturing and any changes to groundwater or surface water flow iii. mine dewatering iv. earthworks v. noise and vibration

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	<ul style="list-style-type: none"> vi. emissions (including dust) vii. light spill and other visual impacts viii. stream diversion and flood levees ix. weeds and pests. <p>d. measures that will be undertaken to mitigate and manage impacts on Matters of National Environmental Significance resulting from mining operations. These measures must include but not be limited to:</p> <ul style="list-style-type: none"> i. the use of fauna spotters prior to and during all vegetation clearing activities to ensure impacts on Matters of National Environmental Significance are minimised ii. measures to avoid impacts on Matters of National Environmental Significance and their habitat located in the Project Area, but outside areas to be cleared, constructed upon and / or undermined, including adjacent to cleared areas iii. measures to rehabilitate all areas of Matters of National Environmental Significance habitat iv. habitat management measures including but not limited to management of subsidence and groundwater impacts of the project. <p>e. goals for habitat management for each relevant Matters of National Environmental Significance</p> <p>f. a table of specific criteria for assessing the success of management measures against goals, and triggers for implementing corrective measures if criteria are not met within specified timeframes. This table must include but not be limited to measures relating to subsidence and groundwater impacts, including early warning triggers for impacts on groundwater at the Doongmabulla Springs Complex and the Carmichael River. Goals and triggers must be based on the baseline condition of the relevant Matters of National Environmental Significance as determined through baseline monitoring (see Conditions 3b) and 6b)). Corrective measures must include provision of offsets where it is determined that corrective management measures have not achieved goals within specified timeframes (see Conditions 11m) and 11o))</p> <p>g. an ongoing monitoring program to determine the success of mitigation and management measures against the stated criteria in Condition 6f), including monitoring locations, parameters and timing. Monitoring for water resource Matters of National Environmental Significance must include hydrogeological, hydrological and ecological parameters</p> <p>h. details of how compliance will be reported</p> <p>i. details of how the MNESMP will be updated to incorporate and address outcomes from research undertaken for Matters of National Environmental Significance under this and any state approvals, including updating of goals, criteria and triggers (as required under Conditions 3c), 3d), 6e) and 6f))</p> <p>j. provisions to ensure that suitably qualified and experienced persons are responsible for undertaking monitoring, review, and implementation of the MNESMP</p> <p>k. In the event that the future baseline research required by the Queensland Coordinator-General (Appendix 1, Section 3, Condition 1 of the Coordinator-General's Assessment Report) identifies that the Mellaluka Springs Complex provides high value habitat for the black throated finch, the approval holder must include management measures to address impacts resulting from drawdown at the Mellaluka Springs Complex in the MNESMP</p> <p>l. details of how, where habitat for an EPBC Act listed threatened species or community not previously identified and reported to the Department is found in the</p>

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	<p>Project Area, the approval holder will notify the Department in writing within five business days of finding this habitat, and within 20 business days of finding this habitat will outline in writing how the conditions of this approval will still be met (refer Condition 11h)).</p>																																																	
Original dated 14/10/2015	<p>7. Mining operations must not commence until the required MNESMP have been approved by the Minister in writing. The approved plan/s must be implemented.</p> <p><i>Note: Management plans (such as the Black Throated Finch Management Plan and the Groundwater Dependent Ecosystems Management Plan) may also be required under state approvals. Whenever possible a combined document should be prepared to address both state government and EPBC Act approval conditions.</i></p> <p><i>Note: Impacts of the action other than mining operations will be offset as required in accordance with Conditions 8 to 11, but will be otherwise managed in accordance with state approvals – this is of particular relevance when impacts may occur prior to approval of the MNESMP.</i></p>																																																	
As varied on the date of this notice	<p>Offset Requirements</p> <p>8. The approval holder must legally secure the minimum offset areas detailed in Table 1 for the rail (west) component within five years of commencement of the specified component of the action. The approval holder must legally secure the minimum offset areas for the other specified components detailed in Table 1 within three years of commencement of those specified components of the action.</p> <p>Table 1. Minimum offset areas required for impacts on EPBC Act listed threatened species and communities and initial contribution to offsets for subsidence impacts from underground mining.</p> <table border="1" data-bbox="395 1077 1501 1608"> <thead> <tr> <th><i>Environmental value</i></th> <th><i>Offset for mining operations north of Carmichael River (hectares)</i></th> <th><i>Offset for mining operations south of Carmichael River (hectares)</i></th> <th><i>Initial offset for underground mining component (hectares)</i></th> <th><i>Offset for off-lease infrastructure (hectares)</i></th> <th><i>Offset for rail east component (hectares)</i></th> <th><i>Offset for rail west component (hectares)</i></th> </tr> </thead> <tbody> <tr> <td>Black throated finch (southern)</td> <td>18 204.06</td> <td>10 739.39</td> <td>2,000.00</td> <td>7.62</td> <td>2.44</td> <td>46.48</td> </tr> <tr> <td>Brigalow ecological community</td> <td>15.12</td> <td>721.11</td> <td></td> <td>0.00</td> <td>6.26</td> <td>72.50</td> </tr> <tr> <td>Ornamental snake</td> <td>96.39</td> <td>38.61</td> <td></td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Squatter pigeon (southern)</td> <td>1598.00</td> <td>902.00</td> <td></td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Waxy cabbage palm</td> <td>90.00</td> <td>0.00</td> <td></td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Yakka skink</td> <td>3770.48</td> <td>1815.42</td> <td></td> <td>1.87</td> <td>0.60</td> <td>11.63</td> </tr> </tbody> </table> <p><i>Note: Offsets for different species may overlap where they share the same habitat requirements.</i></p>	<i>Environmental value</i>	<i>Offset for mining operations north of Carmichael River (hectares)</i>	<i>Offset for mining operations south of Carmichael River (hectares)</i>	<i>Initial offset for underground mining component (hectares)</i>	<i>Offset for off-lease infrastructure (hectares)</i>	<i>Offset for rail east component (hectares)</i>	<i>Offset for rail west component (hectares)</i>	Black throated finch (southern)	18 204.06	10 739.39	2,000.00	7.62	2.44	46.48	Brigalow ecological community	15.12	721.11		0.00	6.26	72.50	Ornamental snake	96.39	38.61		0.00	0.00	0.00	Squatter pigeon (southern)	1598.00	902.00		0.00	0.00	0.00	Waxy cabbage palm	90.00	0.00		0.00	0.00	0.00	Yakka skink	3770.48	1815.42		1.87	0.60	11.63
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Original dated 14/10/2015	<p>Biodiversity Offset Strategy and biodiversity funding</p> <p>9. To compensate for authorised unavoidable impacts on Matters of National Environmental Significance, the approval holder must submit a Biodiversity Offset Strategy (BOS) and a GAB Offset Strategy to the Minister for approval at least three months prior to commencement of mining operations.</p>																																																	
Original dated 14/10/2015	<p>10. Offsets for authorised unavoidable impacts (defined in Table 1), and water resource impacts must be managed in accordance with the BOS and the GAB Offset Strategy.</p>																																																	
Variation dated 26/9/2019	<p>11. The BOS must be consistent with the Galilee Basin Offset Strategy, where relevant, relevant recovery plans, threat abatement plans, conservation advices and MNESMP (see Condition 6), including the Black Throated Finch Management Plan (Appendix 1, Section 1,</p>																																																	

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	<p>Schedule I, condition I6 of the Coordinator-General's Assessment Report). The BOS must include the following (except for the matters at 11k) and 11l), which apply to the Great Artesian Basin (GAB) Offset Strategy):</p> <ul style="list-style-type: none"> a) location of species and communities habitat offset areas including maps in electronic Geographic Information System (GIS) format b) details of how offset sites have been or will be legally secured within required timeframes to ensure their long-term protection c) a monitoring program for the offset site/s suitable to measure the success of the management measures against stated performance criteria including monitoring locations, parameters and timing d) a description of the potential risks to the successful implementation of the BOS, and details of contingency measures that will be implemented to mitigate these risks e) details of how the BOS will be updated to incorporate outcomes from research undertaken for Matters of National Environmental Significance under this and any state approvals, including updating of goals, criteria and triggers (as outlined at Conditions 3c), 3d), 6e) and 6f)). This must include outcomes of baseline research required by the Queensland Coordinator-General to identify whether the Mellaluka Springs Complex provides high value habitat for the black throated finch (Appendix 1, Section 3, Condition 1 of the Coordinator-General's Assessment Report) f) an outline of how compliance will be reported g) provisions to ensure that suitably qualified and experienced persons are responsible for undertaking monitoring, review, and implementation of the BOS h) detailed processes for any residual impacts on Matters of National Environmental Significance, (see Condition 6f)) to be offset in accordance with the EPBC Act Offsets Policy including a process for offset requirement to be developed in consultation with the Department and relevant Queensland Government agencies i) a detailed process for any significant residual impact on any EPBC listed threatened species or ecological community not identified in Table 1 to be offset in accordance with the EPBC Act Offsets Policy (refer Condition 6l)) j) in the event that the future baseline research required by the Queensland Coordinator-General (Appendix 1, Section 3, Condition 1 of the Coordinator-General's Assessment Report) identifies that the Mellaluka Springs Complex provides high value habitat for the black throated finch, the approval holder must: <ul style="list-style-type: none"> i. revise black throated finch offset requirement in the BOS in accordance with the EPBC Act Offsets Policy and submit the revised BOS to the Minister for approval ii. management of any additional black throated finch offsets in accordance with Conditions 13 and 14 must commence prior to hydrological impacts on the Mellaluka Springs Complex, with sites being legally secured within two years of that time. <p><i>Requirements for GAB Offsets Strategy</i></p> <ul style="list-style-type: none"> k) implementation of an annual GAB offset measure, of returning at least 730 megalitres per annum to the GAB for a minimum five year period from commencement of excavation of the first box cut, to offset the predicted annual water take associated with the action. This offset measure is to achieve a measurable outcome in accordance with one or more of the following principles: <ul style="list-style-type: none"> i. reduce current extraction rates from the GAB to increase hydraulic pressure ii. increase pressure in the GAB iii. protect and rehabilitate the GAB springs

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	<p>iv. other measures consistent with government policies and strategies to protect and manage the GAB.</p> <p>l) the offset measure described in Condition 11k) is to be developed and delivered in consultation with the Queensland Government department administering the authorisation of the water take</p> <p><i>Requirements for offsets for potential subsidence, groundwater and water resource impacts</i></p> <p>m) details of how staged subsidence, groundwater and water resource impacts in the Project Area will be addressed in the BOS, including:</p> <ul style="list-style-type: none"> i. description and map of the proposed stages of underground mining. The approval holder must advise the Minister of any changes to these staging details. Underground mining Stage 1 must be consistent with the corresponding definition in these conditions ii. description of how actual subsidence, groundwater and water resource impacts for all completed stages (as defined through Condition 11m)(i)) will be assessed at each stage iii. description of the extent, magnitude and timing of actual subsidence impacts observed in completed stages (as defined through Condition 11m)(i)) iv. description of how actual subsidence and groundwater impacts from completed stages (as defined through Condition 11m)(i)) will be used to revise and update predicted impact areas for future stages v. table of predicted impact areas for each EPBC Act listed threatened species and community in Table 1 within the underground mining area (consistent with Condition 6c)) that allows comparison of actual impact areas with initial impact area predictions and updated impact area predictions. If additional impacted areas are identified as a result of the predictions, additional offsets must be implemented in line with Condition 11h) vi. written commitments from the approval holder that the balance of offset requirement at each stage (as defined through Condition 11m)(i)) will be implemented prior to commencement of that stage. <p>n) rationale for the balance of offset required for underground mining impacts to be updated at each underground mining stage (as defined through Condition 11m)(i)) that includes detailed comparison of the ecological status of EPBC Act listed threatened species and communities within the subsidence impact area between baseline conditions and the end of the most recent underground mining stage</p> <p>o) details of how groundwater and water resource impacts on the Matters of National Environmental Significance will be addressed in the BOS including identification of additional potential offsets (see Condition 6f)) for the Carmichael River and Doongmabulla Springs Complex, to be developed in consultation with the Department and relevant Queensland Government agencies</p> <p>p) detail of how the BOS will be revised and provided to the Minister for approval prior to commencement of each underground mining stage (as defined through Condition 11m)(i)) including timeframes for revision that allow three months for review and approval of the plan.</p>
Original dated 14/10/2015	<p>12. Mining operations must not commence until the BOS and the GAB Offset Strategy is approved by the Minister in writing. The approved BOS and the GAB Offset Strategy must be implemented.</p> <p><i>Note: A Biodiversity Offset Strategy is also required under the State Government approval for the project. A combined document should be prepared to address both State Government and EPBC Act approval conditions where possible.</i></p>

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As varied on the date of this notice	<p><i>Offset area management plans</i></p> <p>13. Within four months of approval of the BOS, the approval holder must submit to the Minister for approval a management plan for each offset area proposed in the approved BOS. Each offset area management plan must address the relevant requirements of the BOS, and contain:</p> <ul style="list-style-type: none"> a) detailed baseline description of offset areas, including surveys undertaken, condition of existing Matters of National Environmental Significance and their habitats, relevant environmental values, area of primary habitat for each EPBC Act listed threatened species and community, connectivity with other habitat areas and biodiversity corridors b) management measures and offset plans for each offset area to improve the habitats of Matters of National Environmental Significance c) a table of specific goals and associated timeframes for habitat management measures for each offset area with criteria for assessing the success of habitat management measures and corrective measures to be implemented if criteria are not met. <p>If the BOS is revised, and the revised BOS is approved by the Minister, and if the revision changed the proposed offsets from those proposed in the previously approved BOS, then the approval holder must, within four months of the approval of the revised BOS, submit to the Minister for approval an offset area management plan for any new offset area and a revised offset area management plan for any altered offset area.</p>
Original dated 14/10/2015	14. Once approved, offset area management plans must be implemented.
Original dated 14/10/2015	<p><i>Biodiversity Funding</i></p> <p>15. The approval holder must establish and/or contribute to a pool of funds established for the better protection and long-term conservation of EPBC Act listed threatened species and communities listed in Table 1.</p>
Original dated 14/10/2015	16. The mechanism to establish and/or contribute to a pool of funds, including terms of reference to support a regional approach, funding mechanisms and an initial work plan, must be provided to the Minister for approval three months prior to commencement of mining operations . The mechanism may be in the form of a trust fund, or other mechanism/s as agreed by the Minister in writing.
Original dated 14/10/2015	17. The approval holder must contribute \$100 000 (GST exclusive) per annum for 10 consecutive years to the pool of funds beginning from commencement of mining operations . The approval holder must provide notice of the establishment of and/or contribution to the pool of funds to the Department in writing prior to commencement of mining operations . Documentary evidence must be provided to the Department showing that the annual financial contributions to the pool of funds have been provided within 30 calendar days of each payment.
Original dated 14/10/2015	<p>18. These funds must facilitate the development and implementation of research programs consistent with priorities to manage development impacts on EPBC Act listed threatened species and communities listed in Table 1 which are consistent with, and take into consideration, any relevant recovery plans, threat abatement plans and/or conservation advices. Research programs should identify measures to mitigate and manage the impacts on EPBC Act listed threatened species and communities listed in Table 1 and should address where relevant:</p> <ul style="list-style-type: none"> a. methodologies for a baseline survey that will report on each species' life history, movement patterns, habitat requirements and population dynamics. Survey methodologies must be in accordance with the Department's survey guidelines or alternative best practice methodologies that are agreed to in writing by the Minister prior to commencement and endorsed by a suitably qualified independent expert. The baseline survey must begin with the first year of the date of this approval

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	<ul style="list-style-type: none"> b. an ongoing monitoring program (developed from the baseline monitoring) for each species, to continue for the duration of the research programs, with annual reporting to the Department c. commitments, including financial commitments and associated timeframes, that will be implemented by the approval holder to support the undertaking of research d. the time frames for undertaking each research component e. timing and methods of reporting research outcomes to the Minister, the scientific community and the public f. outcomes of consultation with the Department on how the proposed Research Programs align with other studies for EPBC Act listed threatened species and communities listed in Table 1 g. identification of priority actions for funding must be decided in consultation with the Queensland Department of Environment and Heritage Protection and members of relevant Recovery Teams.
Original dated 14/10/2015	19. A review of funding must be undertaken five years after the establishment of the pool of funds and/or the commencement of the action or as otherwise agreed by the Minister in writing. This review must take into account progress of the research programs and any subsequent on ground actions, as well as the involvement of other holders of approvals under the EPBC Act in funding and administrative arrangements. The review must be provided to the Department within six months after the five-year period.
Original dated 14/10/2015	<p>20. The approval holder must submit a 3D Seismic Survey Management Plan to the Minister for approval, allowing at least one month for approval. The Seismic Survey Management Plan must include the following information in relation to the seismic survey activities:</p> <ul style="list-style-type: none"> a. a description of seismic survey activities b. a description of impacts of seismic survey activities on Matters of National Environmental Significance c. mitigation measures for seismic survey activities d. identification of offsets for residual impacts on at least 115 ha of black throated finch habitat, to be legally secured within two years of commencement of seismic survey activities and managed in accordance with the Biodiversity Offset Strategy under Condition 12. <p><i>Note: Offset areas identified are not intended to duplicate offset areas identified in accordance with Condition 11 j).</i></p>
Original dated 14/10/2015	21. Seismic survey activities must not commence until the 3D Seismic Survey Management Plan has been approved by the Minister in writing. The approved 3D Seismic Survey Management Plan must be implemented.
Original dated 14/10/2015	22. The approval holder must submit to the Minister , within one month of this approval, a peer review of the adequacy of the current groundwater flow model to characterise groundwater impacts . This review must consider the parameters used into the groundwater flow model, the required additional modelling information and the model re-runs outlined in Condition 23. The peer review must be undertaken by a suitably qualified independent expert . The peer review report should identify any additional information requirements.
Original dated 14/10/2015	<p>23. The approval holder must provide a report to the Minister for the re-run of the groundwater flow model. The model revisions and re-runs must incorporate the following parameters in the scenarios and address the following additional information requirements:</p> <ul style="list-style-type: none"> a. re-define the current General Head Boundary (GHB) arrangement, as agreed by the Department in writing, including the following: <ul style="list-style-type: none"> i. remove the GHB from its current location in all layers to the western edge of the model domain

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	<ul style="list-style-type: none"> ii. review and justify the GHB conductance values used in the model to reflect the differences between aquifers and aquitards and also between aquifers (e.g. Clematis and Colinlea Sandstones), and modify if required iii. GHB cell elevations to be re-set using data as agreed by the Department in writing iv. report on the impacts on groundwater levels and net flows between the model domain for the revised GHB boundaries and compare with previous modelling results. <ul style="list-style-type: none"> b. review and justify the recharge parameters for the Clematis Sandstone to represent the flux into the recharge beds of the GAB, and modify if required c. document outflow mechanisms used in the model for the Doongmabulla Springs Complex and individual model layers, using maps to show the spatial distribution of model discharges d. document and incorporate known licensed groundwater extractions within the model domain e. document and justify any other changes made as part of the model re-runs that are not outlined above f. as per the IESC information guidelines provide an assessment of the quality of, and risks and uncertainty inherent in, the data used in the background data and modelling, particularly with respect to predicted potential scenarios g. provide adequate data (spatially and geographically representative) to justify the conceptualisation of topographically driven flow from south to north (and west to east) in both shallow and deeper aquifers.
Original dated 14/10/2015	24. The outcomes of the model re-runs are to be reviewed in order to inform the development of the GMMP and the Rewan Formation Connectivity Research Plan, and to correct any subsequent inaccuracies in the Matters of National Environmental Significance management plan/s, prior to submitting to the Minister for approval.
Original dated 14/10/2015	<p>Research and management requirements</p> <p><i>GAB springs research plan</i></p> <p>25. At least three months prior to commencing excavation of the first box cut, the approval holder must submit for the approval of the Minister a GAB Springs Research Plan that investigates, identifies and evaluates methods to prevent, mitigate and remediate ecological impacts on the EPBC listed community of native species dependent on natural discharge of groundwater from the Great Artesian Basin (GAB Springs community), including the Doongmabulla Springs Complex, in the Galilee Basin. The GAB Springs Research Plan must include but is not limited to the following:</p> <ul style="list-style-type: none"> a. research aims and rationale with reference to existing scientific research on GAB spring hydrogeology and ecology b. identify priority actions for potential offsets to protect and manage the GAB springs c. personnel responsible for conducting research and their qualifications d. timeframes for research and reporting e. methods, including but not limited to, conceptualisation of the hydrogeology of the springs, geological and geochemical surveys to inform the source aquifer/s for the Doongmabulla Springs Complex, ecological surveys to determine the composition of the GAB springs community, an assessment of transferability of approaches to prevent and mitigate hydrological impacts on springs in the Surat Basin, determination of water requirements (including ecological response thresholds) of the GAB springs community, and development and evaluation of methods to prevent, remediate and mitigate ecological impacts

Date of decision	Conditions attached to approval
	<ul style="list-style-type: none"> f. an analysis of potential mitigation activities, such as but not limited to, re-injection to the groundwater source aquifer to maintain pressure head, flows and ecological habitat at the Doongmabulla Springs Complex g. an explanation of how research outcomes will directly inform the monitoring, management, prevention, mitigation and remediation of impacts on the Doongmabulla Springs Complex h. a peer review of the draft GAB Springs Research Plan, by a suitably qualified independent expert and a table of changes made in response to the peer review i. The GAB Springs Research Plan must be published on the proponent's website for the life of the project. Research outputs must be submitted to the Minister within ten business days of completion, and be made available for the Bioregional Assessment of the Galilee Basin sub-region and the Lake Eyre Basin and any subsequent iterations
Original dated 14/10/2015	26. The approval holder must not commence excavation of the first box cut until the GAB Springs Research Plan has been approved by the Minister in writing. The approved GAB Springs Research Plan must be implemented.
Original dated 14/10/2015	<p><i>Rewan Formation Connectivity Research Plan</i></p> <p>27. At least three months prior to commencing excavation of the first box cut, the approval holder must submit for the approval of the Minister a Rewan Formation Connectivity Research Plan ('Rewan Research Plan') that characterises the Rewan Formation within the area impacted by the mine. The Research Plan must be informed by the results of the groundwater flow model re-run (condition 23) and include but not be limited to the following:</p> <ul style="list-style-type: none"> a. research aims b. personnel responsible for conducting research and their qualifications c. timeframes for research and reporting d. methods, including, but not limited to, seismic surveys to determine the type, extent and location of fracturing, faulting and preferential pathways (including any fracturing induced by longwall mining subsidence, including any fracturing impacting on the Doongmabulla Springs Complex) and an examination of the hydraulic properties (including but not limited to petrophysical analysis and facies mapping) of the Rewan Formation, to better characterise the Rewan Formation and the contribution of fracturing, faulting and preferential pathways to connectivity, including a description of how research will be undertaken in a manner that does not cause impacts on Matters of National Environmental Significance (unless the activities will be undertaken in accordance with a plan approved pursuant to conditions of this approval) e. an explanation of how research will inform the GMMP, any regional groundwater and surface water monitoring and assessment program, or Bioregional Assessment for the Galilee Basin sub-region and the Lake Eyre Basin and any subsequent iterations f. a peer review of the Rewan Research Plan, by a suitably qualified independent expert, approved by the Minister in writing, and a table of changes made in response to the peer review
Original dated 14/10/2015	28. The approval holder must not commence excavation of the first box cut until the Rewan Research Plan has been approved by the Minister in writing. The approved Rewan Formation Connectivity Research Plan must be implemented.
Original dated 14/10/2015	<p>Standard conditions</p> <p>29. Within 30 days of the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement.</p>

Date of decision	Conditions attached to approval
Original dated 14/10/2015	30. The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans, reports, and programs required by this approval, and make them available upon request to the Department . Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act , or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.
Original dated 14/10/2015	31. Within three months of every 12 month anniversary of the commencement of the action, the approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published.
Original dated 14/10/2015	32. Upon the direction of the Minister , the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister . The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister .
Original dated 14/10/2015	33. The approval holder may choose to revise a plan or strategy approved by the Minister under conditions 3, 5, 9, 20, 25 and 27 without submitting it for approval under section 143A of the EPBC Act, if the taking of the action in accordance with the revised plan or strategy would not be likely to have a new or increased impact . If the approval holder makes this choice they must: <ul style="list-style-type: none"> a. notify the Department in writing that the approved plan or strategy has been revised and provide the Department with an electronic copy of the revised plan or strategy; b. implement the revised plan or strategy from the date that the plan or strategy is submitted to the Department; and c. for the life of this approval, maintain a record of the reasons the approval holder considers that taking the action in accordance with the revised plan or strategy would not be likely to have a new or increased impact.
Original dated 14/10/2015	33A. The approval holder may revoke their choice under condition 33 at any time by notice to the Department . If the approval holder revokes the choice to implement a revised plan or strategy, without approval under section 143A of the Act, the plan or strategy approved by the Minister must be implemented.
Original dated 14/10/2015	33B. Condition 33 does not apply if the revisions to the approved plan or strategy include changes to environmental offsets provided under the plan or strategy in relation to the matter, unless otherwise agreed in writing by the Minister . This does not otherwise limit the circumstances in which the taking of the action in accordance with a revised plan or strategy would, or would not, be likely to have new or increased impacts .
Original dated 14/10/2015	33C. If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the action in accordance with the revised plan or strategy would be likely to have a new or increased impact, then: <ul style="list-style-type: none"> a) Condition 33 does not apply, or ceases to apply, in relation to the revised plan or strategy; and b) The approval holder must implement the plan or strategy approved by the Minister. <p>To avoid any doubt, this condition does not affect any operation of conditions 33, 33A and 33B in the period before the day the notice is given.</p> <p>At the time of giving the notice the Minister may also notify that for a specified period of time that condition 33 does not apply for one or more specified plans or strategies required under the approval.</p>

Date of decision	Conditions attached to approval
Original dated 14/10/2015	33D. Conditions 33, 33A, 33B and 33C are not intended to limit the operation of section 143A of the EPBC Act which allows the approval holder to submit a revised plan or strategy to the Minister for approval.
Original dated 14/10/2015	34. If the Minister believes that it is necessary or convenient for the better protection of World Heritage properties, National Heritage places, Wetlands of international importance, listed threatened species and communities, listed migratory species, the Great Barrier Reef Marine Park or a water resource, in relation to coal seam gas development and large coal mining development to do so, the Minister may request that the approval holder make specified revisions to the management plans, reports, and programs specified in the conditions and submit the revised management plans, reports, and programs for the Minister's written approval. The approval holder must comply with any such request. The revised approved management plans, reports, and programs must be implemented. Unless the Minister has approved the revised management plans, reports, and programs, then the approval holder must continue to implement the management plans, reports, and programs originally approved, as specified in the conditions.
Original dated 14/10/2015	35. If, at any time after 10 years from the date of this approval, the approval holder has not substantially commenced the action, then the approval holder must not substantially commence the action without the written agreement of the Minister .
Original dated 14/10/2015	36. Unless otherwise agreed to in writing by the Minister , the approval holder must publish all management plans, reports, and programs referred to in these conditions of approval on their website. Each management plan, report, and program must be published on the website within one month of being approved.

Date of decision	Definitions attached to approval
Original dated 14/10/2015	<u>Approval holder</u> : The person to whom the approval is granted.
Original dated 14/10/2015	<u>Bioregional Assessment for the Galilee Basin sub-region and the Lake Eyre Basin and any subsequent iterations</u> : will be conducted in conjunction with relevant state and territory government agencies and natural resource management bodies and entails a scientific analysis of the ecology, hydrology and geology for the purpose of assessing the potential risks to water resources in the area as a result of the direct and indirect impacts of coal seam gas development and large coal mining development.
Original dated 14/10/2015	<u>Black throated finch</u> : means the Black-throated Finch (southern) (<i>Poephila cincta</i> subsp. <i>cincta</i>) listed as a threatened species under the EPBC Act
Original dated 14/10/2015	<u>Blue devil</u> : means the blue devil (<i>Eryngium fontanum</i>) listed as a threatened species under the EPBC Act
Original dated 14/10/2015	<u>Brigalow ecological community</u> : means Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant), listed as a threatened ecological community under the EPBC Act .
Original dated 14/10/2015	<u>Carmichael River</u> : the Carmichael River and its riparian zone between the Doongmabulla Springs and the Belyando River.
Original dated 14/10/2015	<u>Commencement / commence / commenced / commencing</u> : is the first instance of any specified activity. Unless the activity is specifically defined for the purposes of these conditions, commencement of an activity includes any physical disturbance including clearing of vegetation, earthworks, new road works, new rail works, construction of new camps, development of mining associated infrastructure and mining operations . Commencement does not include: <ul style="list-style-type: none"> a. erection of signage or fencing b. minor physical disturbance necessary to undertake pre-clearance surveys or establish monitoring programs or associated with the mobilisation of the plant, equipment, materials, machinery and personnel prior to the start of railway and road development or construction; or

	c. activities that are critical to commencement that are associated with mobilisation of plant and equipment, materials, machinery and personnel prior to the start of mine, railway or road development or construction only if such activities will have no adverse impact on MNES, and only if the approval holder has notified the Department in writing before an activity is undertaken.
Original dated 14/10/2015	<u>Community of native species dependent on natural discharge of groundwater from the Great Artesian Basin</u> : means the community of native species dependent on natural discharge of groundwater from the Great Artesian Basin, listed as a threatened ecological community under the EPBC Act .
Original dated 14/10/2015	<u>Coordinator-General's Assessment Report</u> : The Queensland Coordinator-General (2014) <i>Carmichael Coal Mine and Rail Project: Coordinator-General's evaluation report on the environmental impact statement May 2014</i> . Department of State Development, Infrastructure and Planning, Brisbane, Queensland
Original dated 14/10/2015	<u>The Department</u> : is the Australian Government Department administering the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
Original dated 14/10/2015	<u>Doongmabulla Springs Complex</u> : the groundwater-fed springs located approximately 8 kilometres from the western edge of the mining lease boundary and consisting of springs within the spring groups identified on page 108 of the Coordinator-General's Assessment Report.
Original dated 14/10/2015	<u>Environmental values</u> : includes but is not limited to habitat for EPBC Act listed threatened species and communities and hydrology of identified water resources.
Original dated 14/10/2015	<u>EPBC/ EPBC Act</u> : means the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
Original dated 14/10/2015	<u>EPBC Act Offsets Policy</u> : means the <i>Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy</i> (October 2012).
Original dated 14/10/2015	<u>EPBC Act listed threatened species and/or community/ies</u> : means a threatened species or community, or a migratory species listed under the EPBC Act .
Original dated 14/10/2015	<u>Excavation of the first box cut</u> : means bulk earthworks excavating the first box cut required for either underground or open cut mining, which for the avoidance of doubt does not include clearing or topsoil stripping.
Variation dated 26/9/2019	<u>Galilee Basin Offset Strategy</u> : is the Queensland Government Department's <i>Galilee Basin Offset Strategy (2013)</i> or any future updated version.
Original dated 14/10/2015	<u>Groundwater conceptual model</u> : is the conceptual groundwater model developed for the project as described in the Adani Mining Pty Ltd (2013) <i>Carmichael Coal Mine and Rail Project Supplementary Environmental Impact Statement</i> at Appendix K6.
Original dated 14/10/2015	<u>Impact/s/ed</u> : as defined in section 527E of the EPBC Act .
Original dated 14/10/2015	<u>IESC Information Guidelines</u> : are <i>Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals</i> , April 2014.
Original dated 14/10/2015	<u>Legally secure</u> : means to secure a covenant or similar legal agreement in relation to a site, to provide enduring protection for the site against developments incompatible with conservation.
Original dated 14/10/2015	<u>Matters of National Environmental Significance</u> : in the context of this approval includes the following: <div style="border: 1px dashed black; padding: 5px; margin-top: 10px;"> <p><i>Listed Threatened Species and Communities</i></p> <p>Black throated finch (southern) (<i>Poephila cincta</i> subsp. <i>cincta</i>)</p> <p>Brigalow ecological community</p> <p>Ornamental snake (<i>Denisonia maculata</i>)</p> <p>Squatter pigeon (southern) (<i>Geophaps scripta</i> subsp. <i>scripta</i>)</p> <p>Waxy cabbage palm (<i>Livistona lanuginosa</i>)</p> </div>

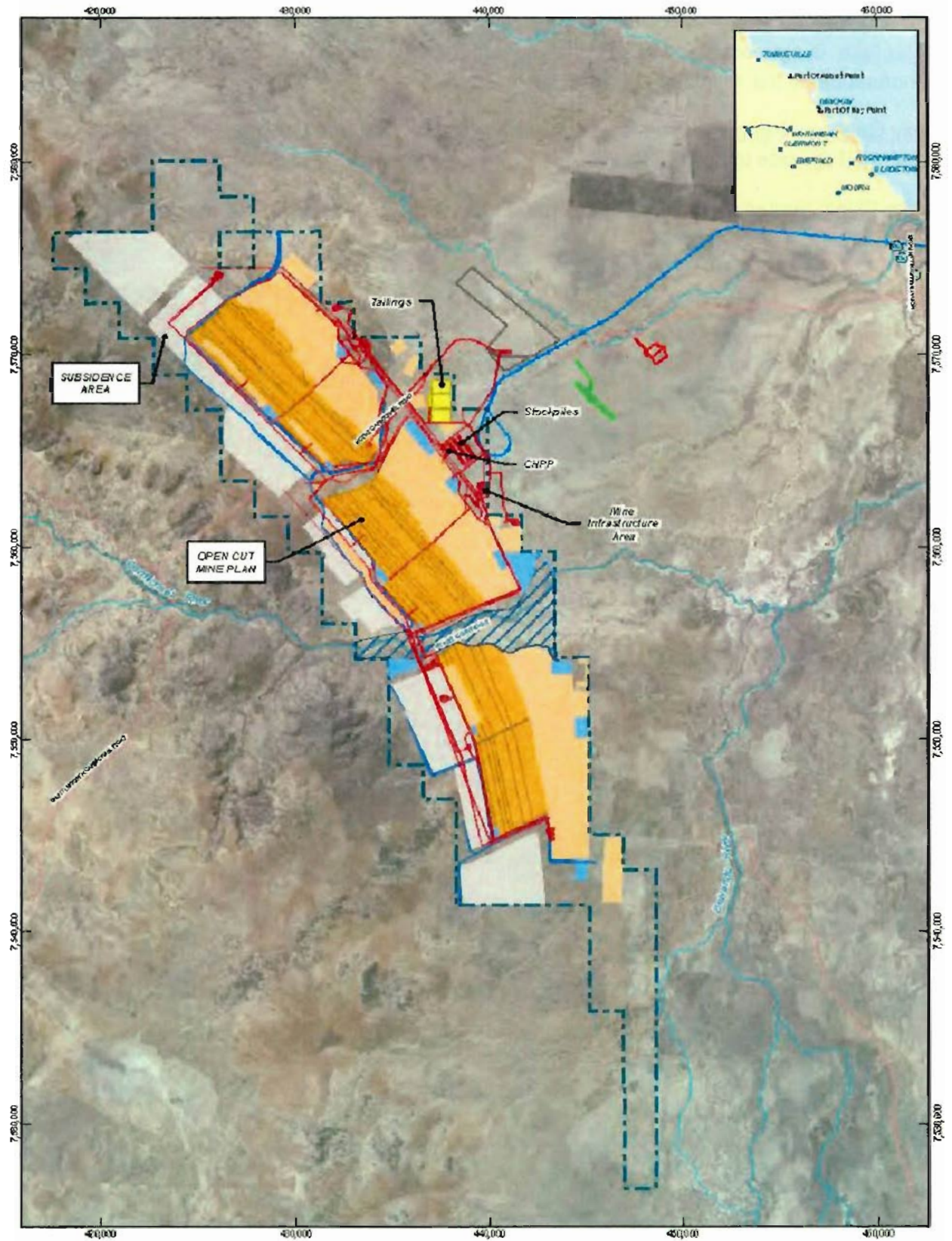
	<p>Yakka skink (<i>Egernia rugosa</i>)</p> <p>Community of native species dependent on discharge from the Great Artesian Basin (Doongmabulla Springs Complex) including the Salt pipewort <i>Eriocaulon carsonii</i>; and the Blue devil <i>Eryngium fontanum</i></p> <p><i>Water Resources</i></p> <p>Carmichael River (Carmichael River and its riparian zone between the Doongmabulla Springs and the Belyando River)</p> <p>Mellaluka Springs Complex</p> <p>Community of native species dependent on discharge from the Great Artesian Basin (Doongmabulla Springs Complex) including the Salt pipewort <i>Eriocaulon carsonii</i>; and the Blue devil <i>Eryngium fontanum</i></p> <p>Waxy cabbage palm (<i>Livistona lanuginosa</i>)</p>
Original dated 14/10/2015	Mellaluka Springs Complex : the groundwater-fed springs located to the south-eastern section of the mine area and consisting of Mellaluka Spring, Stories Spring and Lignum Spring (refer pp. 168-169 of the <u>Coordinator-General's</u> Assessment Report).
Original dated 14/10/2015	Mining operations : are the extraction of ore from the ground as well as any immediately associated activities, including initial clearing of vegetation, removal and storage of overburden, storage of ore and dewatering, but not including exploratory surveys or the construction or operation of transport, accommodation or power generation infrastructure.
Original dated 14/10/2015	The Minister : is the Minister responsible for administering the <i>Environment Protection and Biodiversity Conservation Act 1999</i> and includes a delegate of the Minister.
Original dated 14/10/2015	New or increased impact : A new or increased impact on any matter protected by the controlling provisions for the action, when compared to the plan, program, or strategy that has been approved by the Minister.
Original dated 14/10/2015	Numerical groundwater model : means any computational method that represents an approximation of an underground water system that simulates hydraulic heads (and watertable elevations in the case of unconfined aquifers) and groundwater flow rates within and across the boundaries of the system under consideration.
Original dated 14/10/2015	Ornamental Snake : means the ornamental snake (<i>Denisonia maculata</i>), listed as a threatened species under the EPBC Act .
Original dated 14/10/2015	Project Area : all disturbance areas as defined in the maps at Appendix A. It is noted that minor alterations may be made in order to avoid Matters of National Environmental Significance or State Significant Biodiversity Values found during pre-clearance surveys. These are permitted only where they will result in a lower level of impact to these matters.
Original dated 14/10/2015	Rail (west) : is a 120 km dual gauge greenfield rail line connecting the mine as far east as Diamond Creek, to provide for the export of coal via the Port of Hay Point (Dudgeon Point expansion) and the Port of Abbot Point.
Original dated 14/10/2015	Rail (east) : is a 69 km narrow gauge portion of greenfield rail line running east from Diamond Creek to the existing Goonyella and Newlands rail systems, to provide for the export of coal via the Port of Hay Point (Dudgeon Point expansion) and the Port of Abbot Point.
Original dated 14/10/2015	Salt pipewort : means the salt pipewort (<i>Eriocaulon carsonii</i>) listed as a threatened species under the EPBC Act
Original dated 14/10/2015	Seismic survey activities : includes any activity involving ground disturbance associated with 3D seismic survey over an area of 2304 ha within mining lease EPC 1690.
Original dated 14/10/2015	Specified component : is any part of the approved action that the Minister has agreed in writing to consider individually for the purposes of these conditions, and also includes the six components specified in Table 1.
Original dated 14/10/2015	Squatter Pigeon : means the squatter pigeon (Southern) (<i>Geophaps scripta</i> subsp. <i>scripta</i>), listed as a threatened species under the EPBC Act.

Original dated 14/10/2015	<u>State approvals</u> : include any permits, licences or other authorisations, including any associated conditions, issued in relation to the action by any Queensland Government agency.
Original dated 14/10/2015	<u>Subsidence</u> : means the totality of subsidence effects and subsidence impacts ; where 'subsidence effects': means deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature; and 'subsidence impacts ': means physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs.
Original dated 14/10/2015	<u>Suitably qualified and experienced persons</u> : means persons who have professional qualifications, training, skills or experiences related to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relative protocols, standards, methods or literature
Original dated 14/10/2015	<u>Suitably qualified independent expert</u> : means a person who has professional qualifications, training, skills or experiences related to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relative protocols, standards, methods or literature
Original dated 14/10/2015	<u>Survey Guidelines</u> : include the following: Matters of National Environmental Significance, Significant Impact Guidelines 1.1, Environment Protection and Biodiversity Conservation Act 1999: http://www.environment.gov.au/epbc/publications/nes-guidelines.html Survey Guidelines for Australia's Threatened Frogs, Threatened Mammals, Threatened Reptiles and Threatened Bats: http://www.environment.gov.au/epbc/guidelines-policies.html Survey Guidelines for Australia's Threatened Birds: http://www.environment.gov.au/resource/survey-guidelines-australias-threatened-birds-guidelines-detecting-birds-listed-threatened
Original dated 14/10/2015	<u>Underground mining Stage 1</u> : means years 1-10 of underground mining including all associated activities including box cut excavation, portal construction, long wall construction and longwall panel mining. Multi seam mining within the first underground mine will occur during this time period. This definition and timing provides certainty and confidence in regards to the assessment of actual subsidence related impacts versus predicted subsidence related impacts that is required to be undertaken at the conclusion of underground mining Stage 1.
Original dated 14/10/2015	<u>Water take</u> : is extraction of water from a regulated water resource, in accordance with an authorisation by the regulating body.
Original dated 14/10/2015	<u>Waxy Cabbage Palm</u> : means the waxy cabbage palm (<i>Livistona lanuginosa</i>) listed as a threatened species under the EPBC Act .
Original dated 14/10/2015	<u>Yakka Skink</u> : means the yakka skink (<i>Egernia rugosa</i>), listed as a threatened species under the EPBC Act .

Date of decision	Appendix A
Original dated 14/10/2015	Disturbance Area – Mine Domains
Original dated 14/10/2015	Disturbance Area – Offsite Infrastructure
Original dated 14/10/2015	Disturbance Area – Project (Rail) – page 1 of 4
Original dated 14/10/2015	Disturbance Area – Project (Rail) – page 2 of 4

Date of decision	Appendix A
Original dated 14/10/2015	Disturbance Area – Project (Rail) – page 3 of 4
Original dated 14/10/2015	Disturbance Area – Project (Rail) – page 4 of 4

[to be attached]



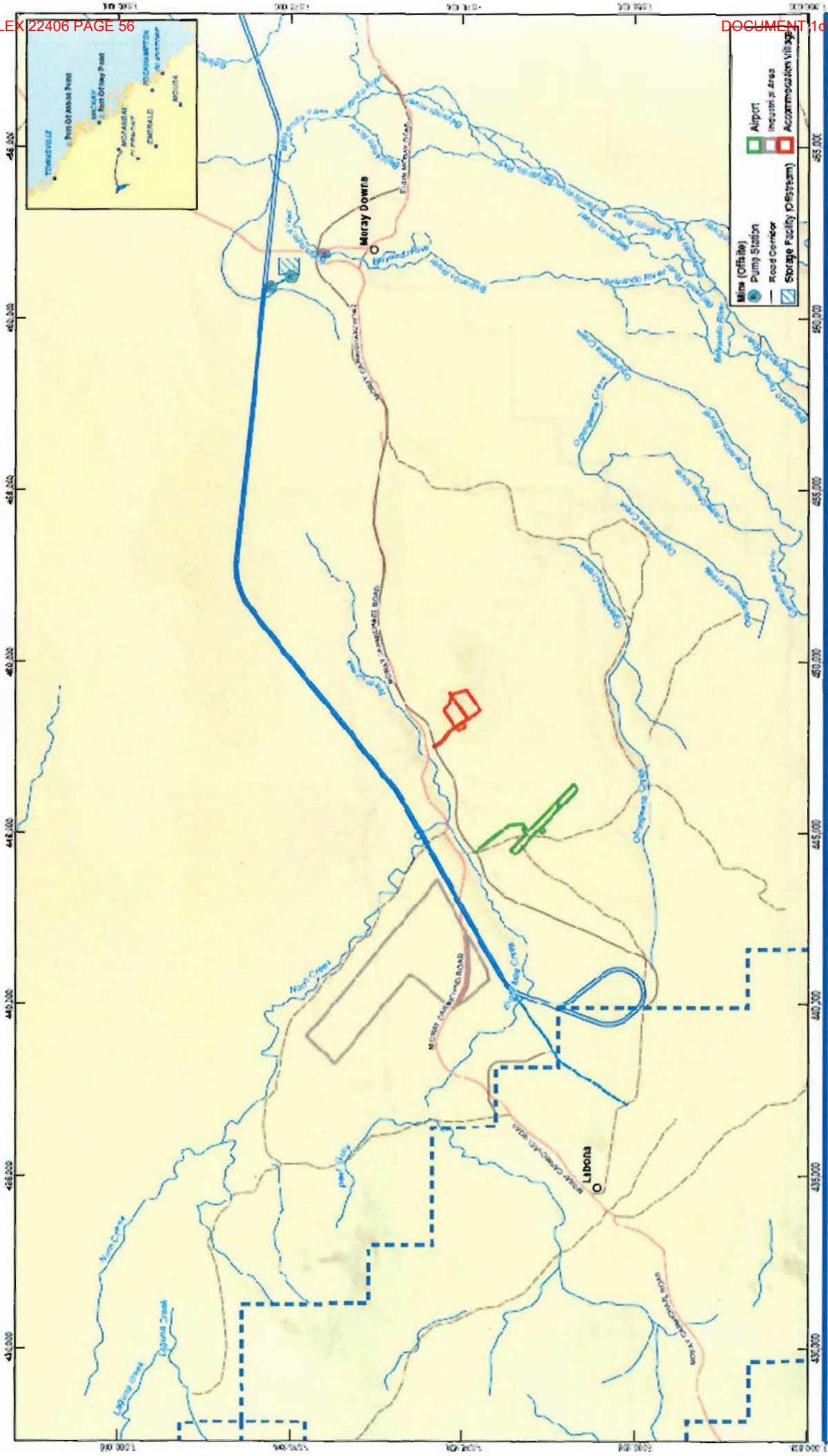
LEGEND		Mine (Offsite)		Airport	
Local road	Mine Domain	Open-cut voids and slopes	Pump Station	Airport	Industrial Area
Watercourse	Mine infrastructure	Out-of-pit spoil dumps	Storage Facility (Offstream)	Accommodation Village	
Mine (Onsite)	Tailings drying cells	Carmichael River corridor			
Project (Rail)	Water storage areas	Underground mining areas			
	Stream diversions				

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Adani Mining Pty Ltd
Carmichael Coal Mine and Rail Project
Disturbance Area - Mine Domains

Job Number	41-20422
Revision	A
Date	10-02-2014



Legend

- Mine (Offsite)
- Pump Station
- Road Corridor
- Storage Facility (System)
- Watercourse
- Local Road
- Track
- Watercourse
- Rail Corridor
- Water Supply Pipeline
- Airport
- Industry Area
- Accommodation Village

Job Number	41-38-02
Revision	B
Date	19-02-2014

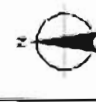
Adani Mining Pty Ltd
Carmichael Coal Mine and Rail Project



Disturbance Area - Offsite Infrastructure

LEGEND

- Homehead
- Local Road
- Track
- Watercourse
- Rail Corridor
- Water Supply Pipeline
- Mine (Onsite)

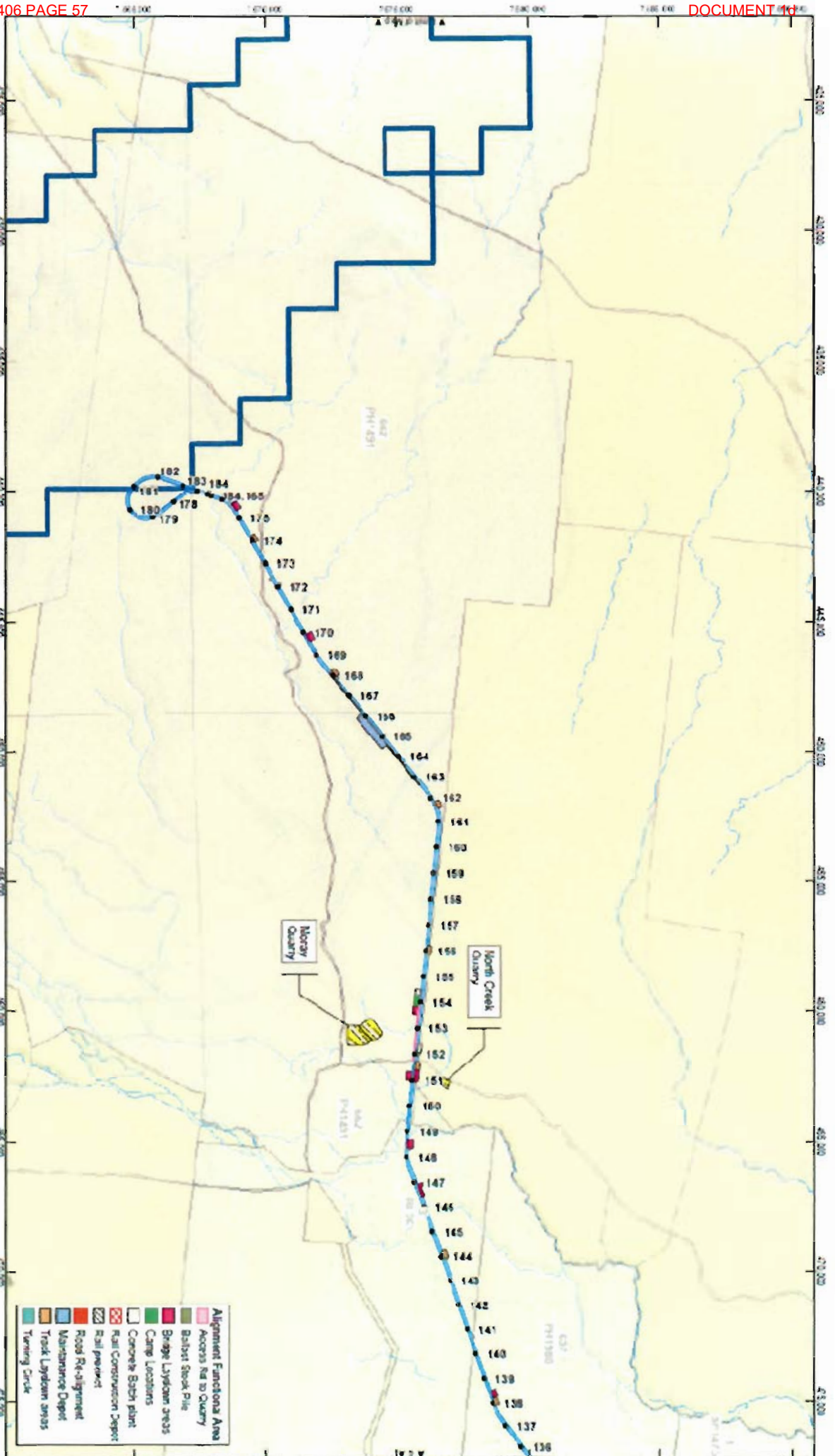


Map Projection: UTM Zone 50S
 Datum: GDA94
 Contour Interval: 10m
 Date: 19-02-2014

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Australian Government



Adani Mining Pty Ltd
Carnichael Coal Mine and Rail Project
Disturbance Area - Project (Rail)

Alignment Functional Area

- Access Set to Quarry
- Ballast Stock Pile
- Bridge Laydown areas
- Camp Locations
- Concrete Batch plant
- Rail Construction Depot
- Rail Precinct
- Road Re-alignment
- Maintenance Depot
- Trook Laydown areas
- Turning Circle

- LEGEND**
- Project (Rail) Change
 - Other Railway
 - Watercourse
 - Rail (West)
 - Rail (East)
 - Project (Wire)
 - Query
 - Property Boundary
 - Impacted Property

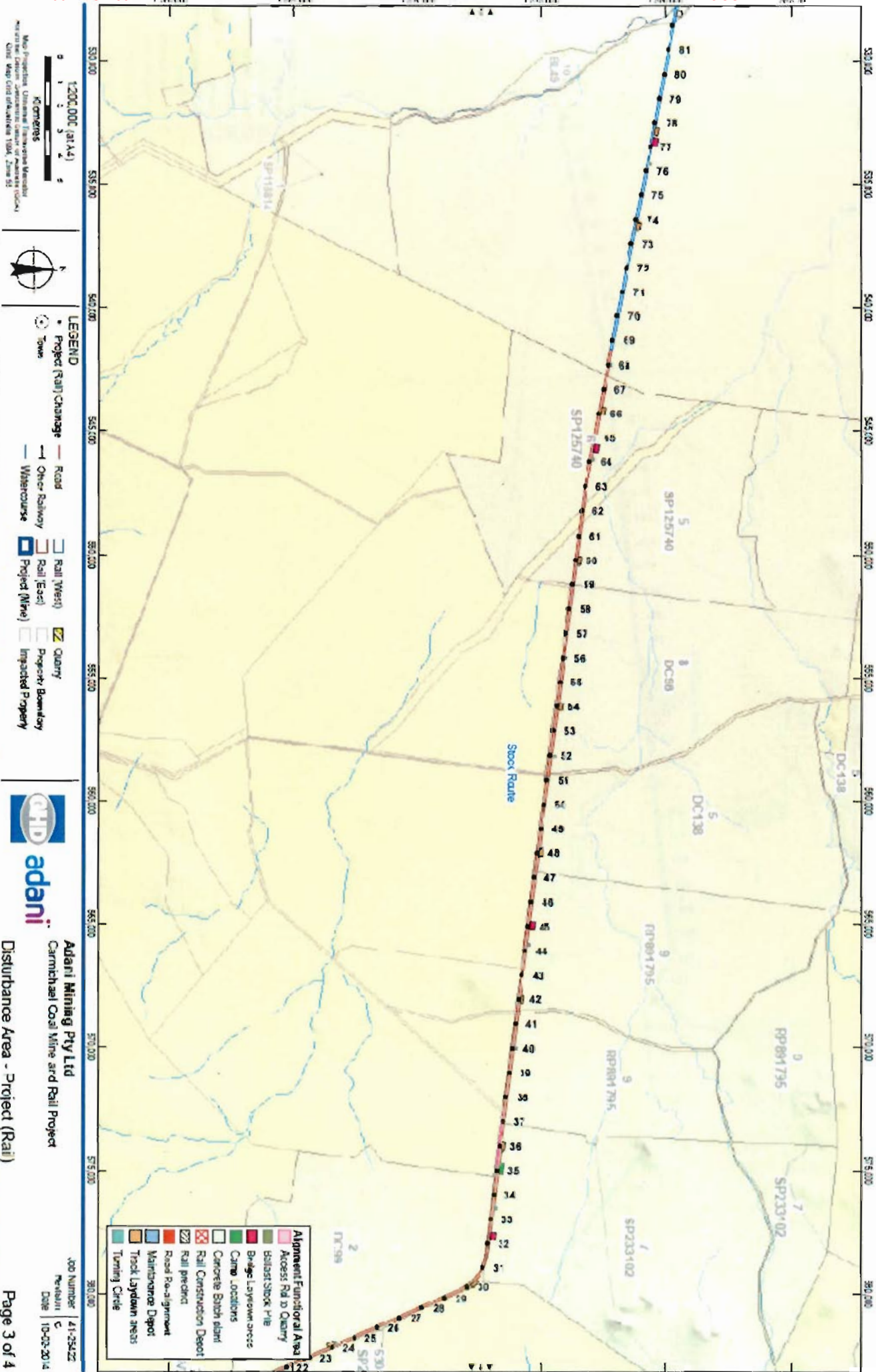
Scale: 1:200,000 (GDA11)

North Arrow

Icons: Town, Station

Page 1 of 4
 Job Number: L-28422
 System: C
 Date: 19-03-2014

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Map Projection: Universal Transverse Mercator
 Map Unit: Meter
 Date: 10-05-2014

Legend:
 Project (Rail) Change
 Road
 Other Railway
 Watercourse
 Rail (West)
 Rail (East)
 Project (Mine)
 Quarry
 Property Boundary
 Impacted Property

Scale: 1:200,000 (at A4)

North Arrow

Job Number: 41-25422
 Revision: C
 Date: 10-05-2014

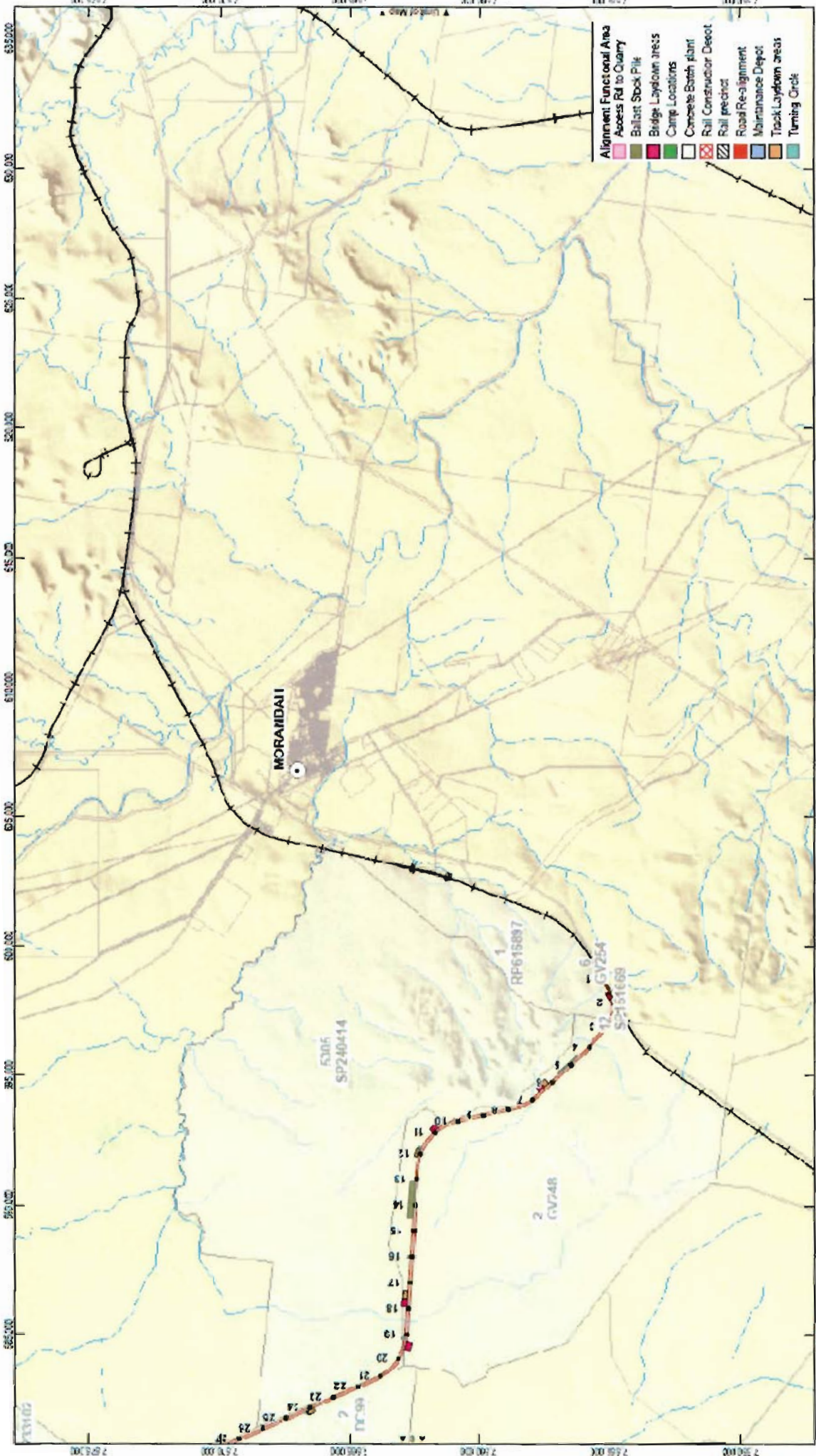
Page 3 of 4

Disturbance Area - Project (Rail)

Adani Mining Pty Ltd
 Carmichael Coal Mine and Rail Project

Site: 1.45 Km S175W of QLD 4000 T-4-1 7 3116 3000 F-4-17 3116 3333 E: enquiry@adani.com W: www.adani.com

Notes:
 1. This map shows the proposed rail alignment for the Carmichael Coal Mine and Rail Project. The alignment is shown as a red line with stationing. The map also shows existing roads, watercourses, and other infrastructure. The alignment is shown as a red line with stationing. The map also shows existing roads, watercourses, and other infrastructure. The alignment is shown as a red line with stationing. The map also shows existing roads, watercourses, and other infrastructure.



.00 NUMBER: 11-25-12
 Revisor: 0
 DATE: 10-02-2014

adani
 Adani Mining Pty Ltd
 Carmichael Coal Mine and Rail Project
GHID
 Disturbance Area - Project (Rail)

LEGEND
 Project (Rail) Change
 Town
 Road
 Other Railway
 Watercourse
 Rail (West)
 Rail (East)
 Project (Misc)
 Quarry
 Property Boundary
 Impacted Property

0 1 2 3 4
 Kilometres
 1:220,000 (21A-4)

Date: 10-02-2014
 0 1 2 3 4
 Kilometres

This map was prepared by GHID for the use of Adani Mining Pty Ltd. A representation of the data provided is not a guarantee of accuracy. GHID does not warrant the accuracy or completeness of the information provided in this map. The information provided is for informational purposes only and should not be used for any legal or financial purposes. GHID is not responsible for any errors or omissions in this map. The information provided is for informational purposes only and should not be used for any legal or financial purposes.

s. 22(1)(a)(ii)

From: s. 47F(1)
Sent: Thursday, 4 March 2021 10:16 AM
To: s. 22(1)(a)(ii)
Subject: FW: 2010/5736 - variation Appendix A
Attachments: 2010-5736-20210303-variation appendix A-Notice-draft.docx; 2010-5736-20210303-variation appendix A-notice-Appendix A.pdf

Good morning

I agree with the wording and maps in the attached.

Happy to stay with 'domain' and not the plural.

Regards

s. 47F

(1)

|Manager - Approvals

s. 47F(1)

Reception: +61 7 3223 4800 | Direct: s. 11C(1)(a)
Level 9, 120 Edward Street, Brisbane, QLD, 4000
GPO Box 2569, Brisbane, QLD, 4001

bravus.com.au



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Privilege, confidentiality and copyright associated with this email is not waived.

From: s. 22(1)(a)(ii)

Sent: Wednesday, 3 March 2021 3:01 PM

To: s. 47F(1)

Subject: [EXTERNAL] 2010/5736 - variation Appendix A

Hi

We have prepared the attached draft notice and Appendix as requested, for your review and agreement.

Please note that in your letter, the term "Mine Domains" was used, whereas the map says "Mine Domain" – happy to go either way but the original map shows "Mine Domain"

Regards

s. 22(1)(a)(ii)

Post Approvals Section

Department of Agriculture, Water and the Environment

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