

# Application form

*Environmental Protection Act 1994*

## Variation application for a new environmental authority for a resource activity

*This is the approved form that is to be used to make a variation application for an environmental authority under sections 123 and 125 of the Environmental Protection Act 1994 (EP Act) for an environmentally relevant activity (ERA) which is a resource activity.*

You can apply through Online Services at: <https://business.qld.gov.au/running-business/environment/online-services>.

**Note:** The only way to pay fees by credit card is by completing the application through Online Services. For other fee payment options see Question 13.

It is recommended that you read the information on what to provide with an application, prior to making an application. This information, along with eligibility criteria and standard conditions, is located on the Business Queensland website at [www.business.qld.gov.au](http://www.business.qld.gov.au) (use the search term “environmental licence”). This website also has a diagnostic tool called the “Forms and fees finder” which will take you through a series of questions and provide a customised result which will identify any forms, fees and supporting information you need to make an application.

### Only use this application form if you are applying for a new environmental authority (EA) where:

- All applicants are registered as suitable operators<sup>1</sup>. A suitable operator is a person or a corporation assessed under section 318I of the EP Act as being suitable to carry out an ERA and is listed on the suitable operator register<sup>2</sup>.
- The ERA/s being applied for is/are a resource activity/activities, that involve: (a) a geothermal activity, (b) a greenhouse gas (GHG) storage activity, (c) a mining activity, or (d) a petroleum activity. Note a resource activity is taken to include ancillary activities (prescribed ERAs) and other activities carried out under the authority as a resource activity.
- All of the ERA/s being applied for have eligibility criteria and standard conditions available.
- You can meet all of the eligibility criteria for all of the ERA/s being applied for however you want to vary one or more of the standard conditions.
- An application for relevant resource tenure has been made or will be made at the same time as this application.
- The applicant/s for the resource tenure are exactly the same as the applicant/s for this EA application.

<sup>1</sup> Your EA application must be refused if you are not a registered suitable operator when the application is decided. To become a registered suitable operator, apply using the form “Application to be a registered suitable operator - ESR/2015/1771” (available at [www.qld.gov.au](http://www.qld.gov.au), using the publication number ESR/2015/1771 as a search term).

<sup>2</sup> The register is available on the Queensland Government website at [www.qld.gov.au](http://www.qld.gov.au), using the search term “suitable operator register”.

## Variation application for a new environmental authority for a resource activity

- The ERA/s being applied for will not form part of an ERA project under an existing EA.
- If more than one ERA is being applied for:
- the ERAs being applied for will be carried out under the day to day management of a single responsible person (e.g. a site manager or operations manager); and
  - all of the ERAs are operationally interrelated, that is, the operation cannot function without all of the ERAs. Separate applications will need to be made for the ERAs that cannot be carried out as a single integrated operation; and
  - the ERA/s are, or will be, carried out at one or more places; and
  - the places where the ERAs will be carried out are close enough to make the integrated day to day management of the activities feasible.

If you would like to have a pre-lodgement meeting, please complete and lodge the form Application for pre-lodgement services (ESR/2015/1664<sup>3</sup>), prior to lodging this application for an EA.

**The fields marked with an asterisk \* are mandatory, if they are not completed then your application may be considered not properly made under section 128 of the *Environmental Protection Act 1994*.**

## 1 Applicant details

Is there more than one applicant?*	<input type="checkbox"/> No, please provide the applicant's details here. <input checked="" type="checkbox"/> Yes, please provide the principal applicant's details here and other applicants' details at Attachment 1—Joint applicants and appointment of principal applicant
Name—individual or contact person if applicant is an organisation*	
Gerard Francis Lowien	
Organisation name, including any trading name (*if an organisation) Insert.	ABN/ACN (*if an organisation) Insert.
Residential or registered business address (not a post office box)* 17 Rapur Street, Raceview Qld 4305	Phone* 0408739534
Postal address (if same as above, write "AS ABOVE")* AS ABOVE	Facsimile Insert.
Email* gerardfl@optusnet.com.au	<input type="checkbox"/> Indicate if you want to receive correspondence via email

### 1.1 Nomination of an agent for this application

I/we nominate the below agent to act on my/our behalf and to receive correspondence relating to this application.

Do you want to nominate an agent for this application?*
<input type="checkbox"/> No → Go to <i>Question 2</i> . <input checked="" type="checkbox"/> Yes → Complete the agent's details here.

<sup>3</sup> This form is available on the Queensland Government website at [www.qld.gov.au](http://www.qld.gov.au), using the publication number 'ESR/2015/1664' as a search term.

## Variation application for a new environmental authority for a resource activity

Name of agent—individual or contact person if agent is an organisation Claire Mackney	
Organisation name, including trading name (if an organisation) Avoca Tenement Consulting Pty Ltd	ABN/ACN (if an organisation) 11629027649
Postal address PO Box 706, Mareeba Qld 4880	Phone 0740926743
Email Qld@tenementmatters.com.au	<input type="checkbox"/> Indicate if you want to receive correspondence via email

## 2 Registered suitable operator status

A suitable operator is a person or a corporation assessed under Part 4, Chapter 5A of the EP Act as being suitable to carry out an ERA and is listed on the suitable operator register<sup>4</sup>.

Are all applicants registered as a suitable operator?*	
<input checked="" type="checkbox"/> Yes →	<p>Suitable operator reference number*</p> <p>100380197</p> <p>The suitable operator reference number provided must belong to the individual/organisation with the exact same name, DOB or ABN/ACN as the applicant. If there is more than one applicant, include all applicants' suitable operator reference numbers on Attachment 1.</p>
<input type="checkbox"/> No →	<p>You must apply to be a suitable registered operator by completing the form Application to be a registered suitable operator (ESR/2015/1771)<sup>5</sup>.</p> <p>Note: If there is more than one applicant, a separate form must be attached for each applicant.</p>

## 3 Details of the activity/activities being applied for

Complete the table below by advising which activities you are applying for and the location they will be conducted at. By selecting "yes" you are certifying that you have a complete and thorough understanding of, and can comply

<sup>4</sup> The register is available on the Queensland Government website at [www.qld.gov.au](http://www.qld.gov.au), using the search term "suitable operator register".

<sup>5</sup> Available at [www.qld.gov.au](http://www.qld.gov.au), using the publication number ESR/2015/1771 as a search term.

## Variation application for a new environmental authority for a resource activity

with the eligibility criteria and standard conditions for that activity. By selecting “no” you are advising that you cannot comply with one or more of the standard conditions.

Resource activity/activities, e.g. gemstone mining, geothermal activities, exploration—minerals, petroleum exploration activities, data acquisition authority*	I can comply with the eligibility criteria*	I can comply with the standard conditions <sup>6*</sup>	Tenure number(s)*
Alluvial/eluvial Gold Mining	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	ML 100345
Insert.	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No	Insert.
Insert.	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No	Insert.
Insert.	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No	Insert.

<sup>6</sup> ERAs with eligibility criteria and standard conditions are listed on the Business Queensland website at [www.business.qld.gov.au](http://www.business.qld.gov.au), using the search term “eligibility criteria”.

## Variation application for a new environmental authority for a resource activity

**4 Standard conditions to vary**

For each activity listed in *Question 3* where you cannot comply with the standard conditions, please provide details of the variation being applied for below, or on an attachment.

For coordinated projects, if the conditions in the Coordinator-General's (CG's) evaluation report vary the standard conditions for the relevant activity/activities provide all variations in the table below and tick the box in the 'CG's condition' column. If the evaluation report states additional conditions (i.e. additional to the standard or varied conditions) provide the details in *Question 10.2* below.

Activity name*	Standard condition to be varied (e.g. PESCB 3)*	Requested variation*	CG's condition	Justification—provide information for the administering authority to assess the environmental risk of the requested variation <sup>7</sup> (*not required if a CG's condition)
Alluvial Gold Mining	A13	Variation to reduce the buffer of Category B sensitive area – Endangered Regional Ecosystem to a distance of 185m.	<input type="checkbox"/>	Application has been made for ML 100345 within the buffer of category B ESA. The permit sits over gold mineralisation. Shallow surface disturbance in the area of the application is proposed. The proposed surface disturbance is unlikely to cause significant residual impact upon the identified nearby located category B ESA.
Insert.	Insert.	Insert.	<input type="checkbox"/>	Insert.
Insert.	Insert.	Insert.	<input type="checkbox"/>	Insert.

<sup>7</sup> More information on the technical information requirements for an environmental authority application is available on the Business Queensland website at [www.business.qld.gov.au](http://www.business.qld.gov.au), using the search term "technical information requirements".

Variation application for a new environmental authority for a resource activity

Activity name*	Standard condition to be varied (e.g. PESCB 3)*	Requested variation*	CG's condition	Justification—provide information for the administering authority to assess the environmental risk of the requested variation <sup>7</sup> (*not required if a CG's condition)
Insert.	Insert.	Insert.	<input type="checkbox"/>	Insert.
Insert.	Insert.	Insert.	<input type="checkbox"/>	Insert.
Insert.	Insert.	Insert.	<input type="checkbox"/>	Insert.
Insert.	Insert.	Insert.	<input type="checkbox"/>	Insert.

I have attached the documentation to support the variations to the standard conditions listed above.

## Variation application for a new environmental authority for a resource activity

**5 Description of land where the activity/activities will be carried out**

Project name (*if relevant): Insert.		GPS coordinates (*if known): Insert.	
Other land description or land marks to locate the activity (*if relevant): Insert.			
Tenure type(s) e.g. DAA, EPM, EPC*	Tenure number(s)*	Local Government Area (LGA)*	Date on application*
Mining Lease	ML 100345	Isaac RC	03/03/2023
Insert.	Insert.	Insert.	Insert.
Insert.	Insert.	Insert.	Insert.
Insert.	Insert.	Insert.	Insert.
Insert.	Insert.	Insert.	Insert.
Insert.	Insert.	Insert.	Insert.
Insert.	Insert.	Insert.	Insert.
Insert.	Insert.	Insert.	Insert.

**6 Details of contaminated land**

Is there a site management plan in effect for contaminated land that relates to the land that is the subject of this application?*		
<input checked="" type="checkbox"/> No →	Go to <i>Question 7</i> .	
<input type="checkbox"/> Yes →	Description of land*	
	Lot and plan number(s)	LGA
	Lot Insert.                      Plan Insert.	Insert.
	Lot Insert.                      Plan Insert.	
	Lot Insert.                      Plan Insert.	
Lot Insert.                      Plan Insert.		
If you are not able to provide all relevant details above, please attach them to this application and indicate you have done so below:		
<input type="checkbox"/> I have attached the description of the land for which a site management plan is in effect.		

**7 Regional interests development approval**

A regional interests development approval (RIDA) is required when a resource activity is proposed in an area of regional interest under the *Regional Planning Interests Act 2014*. Further information, including application forms, can be found on the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) website, <https://planning.dsdmip.qld.gov.au/planning/regional-planning-interests-act> .

## Variation application for a new environmental authority for a resource activity

Is the resource activity located anywhere within an area of regional interest?*	
<input checked="" type="checkbox"/> No	
<input type="checkbox"/> Yes →	Which area of regional interest, has or will require a RIDA? <input type="checkbox"/> Priority Agricultural Areas (PAAs) <input type="checkbox"/> Priority Living Areas (PLAs) <input type="checkbox"/> Strategic Environmental Areas (SEAs) <input type="checkbox"/> Strategic Cropping Area (SCA) <input type="checkbox"/> No RIDA required, I am an exempt activity.
	If you have applied for a RIDA, provide the application reference below: Insert.

## 8 Environmental offsets

An environmental offset, under the *Environmental Offsets Act 2014*, may be required for an ERA where, despite all reasonable measures to avoid and minimise impacts on certain environmental matters, there is still likely to be significant residual impact on one or more of those matters.

You must verify the presence, whether temporary or permanent, of those environmental matters.

For more information refer to the Queensland Environmental Offsets Policy and the Significant Residual Impact Guideline at the Queensland Government website at [www.qld.gov.au](http://www.qld.gov.au), using the search term “environmental offsets”.

Will the activity/activities being applied for result in a significant residual impact to a matter of State environmental significance (MSES)?*	
<input checked="" type="checkbox"/> No →	Go to <i>Question 8.3</i> .
<input type="checkbox"/> Yes →	You <b>must</b> attach supporting information that: <ol style="list-style-type: none"> <li>Details the magnitude and duration of the likely significant residual impact on each prescribed environmental matter (other than matters of local environmental significance) for the entire activity; and</li> <li>Demonstrates that all reasonable measures to avoid and minimise impacts on each of those matters will be undertaken.</li> </ol>

### 8.1 Notice of election

Has a notice of election been submitted to the administering authority, or is being submitted as part of this application?	
<input type="checkbox"/> No →	Go to <i>Question 8.2</i> .
<input type="checkbox"/> Yes →	<input type="checkbox"/> You can attach the notice of election, if it has not already been submitted. Go to <i>Question 8.3</i> .

### 8.2 Staged environmental offsets

Offset delivery can be staged, however for this to occur, the condition of any approved environmental authority needs to state that both the activity and the offset may be staged. As part of your notice of election for each stage under the *Environmental Offsets Act 2014*, you are required to provide a detailed assessment of the quantum of impact of that stage and the offset obligation requirement to be delivered for that stage.



## Variation application for a new environmental authority for a resource activity

Will the proposed activity/activities and delivery of an environmental offset be undertaken in stages?*	
<input type="checkbox"/> No	
<input type="checkbox"/> Yes →	You <b>must</b> attach supporting information that details of how the activity/activities are proposed to be staged.

**8.3 Nature conservation environmental offset**

Has another authority issued under the <i>Nature Conservation Act 1992</i> required an environmental offset for the same, or substantially the same, impact and the same, or substantially the same, MSES?	
<input checked="" type="checkbox"/> No	
<input type="checkbox"/> Yes →	Provide permit number: <i>Insert</i> .

**8.4 Marine parks environmental offset**

Has marine park permit issued under the <i>Marine Parks Act 2004</i> required an environmental offset for the same, or substantially the same, impact and the same, or substantially the same, MSES?	
<input checked="" type="checkbox"/> No	
<input type="checkbox"/> Yes →	<input type="checkbox"/> You <b>must</b> attach a copy of the marine park permit to this application.

**9 Matters of national environmental significance**

There are currently nine matters of national environmental significance (MNES) which have been defined in the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (EPBC Act). These are:

- world heritage properties
- national heritage places
- wetlands of international importance (listed under the Ramsar Convention)
- listed threatened species and ecological communities
- migratory species protected under international agreements
- Commonwealth marine areas
- the Great Barrier Reef Marine Park
- nuclear actions (including uranium mines)
- a water resource, in relation to coal seam gas development and large coal mining development

To determine whether the proposed activity/activities will have a significant impact on MNES and for referral requirements, please refer to the guidance provided by the Federal Government's Department of Environment and Energy on [www.environment.gov.au](http://www.environment.gov.au).

Would the carrying out of the proposed activity/activities be likely to have a significant impact on a MNES?*	
<input checked="" type="checkbox"/> No →	Go to <i>Question 10</i> .
<input type="checkbox"/> Yes →	Has the proposal been referred to the Federal Department of Environment and Energy for formal assessment and approval? <input type="checkbox"/> No → Go to <i>Question 10</i> . <input type="checkbox"/> Yes → Go to <i>Question 9.1</i> .

**9.1 EPBC Act approval for environmental offsets**

Has an approval been issued under the EPBC Act required an environmental offset for the same, or substantially the same, impact and the same, or substantially the same, MSES?	
<input type="checkbox"/> No →	Go to <i>Question 10</i> .
<input type="checkbox"/> Yes →	<input type="checkbox"/> I have attached a copy of the approval under the EPBC Act.

## Variation application for a new environmental authority for a resource activity

	<p>Are there any MNES which were assessed under the EPBC Act which are the same, or substantially the same as an MSES, but that were not conditioned in the approval?</p> <p><input type="checkbox"/> No → Go to Question 10.</p> <p><input type="checkbox"/> Yes → List these MNES: Insert.</p>
--	--

**10 Environmental impact statement under the *State Development and Public Works Organisation Act 1971***

Certain stages of the EA application process may not apply if the proposed activities were assessed as part of a coordinated project declared under the *State Development and Public Works Organisation Act 1971* (SDPWO Act). You are only required to answer Questions 10 to 10.2 if the CG's evaluation report for the project is current.

Variation application for a new environmental authority for a resource activity

Has an environmental impact statement (EIS) process under the SDPWO Act been completed?*					
<input checked="" type="checkbox"/> No → Go to <i>Question 11</i> .					
<input type="checkbox"/> Yes →	What is the title and project name of the completed EIS? Insert.				
	Was the EIS completed for all activities that are the subject of this application?				
	<table border="1"> <tr> <td><input type="checkbox"/> No →</td> <td>Please list the activities that were not included in the EIS or attach documentation with this information to this application: Insert.</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> I have attached the required supporting information.</td> </tr> </table>	<input type="checkbox"/> No →	Please list the activities that were not included in the EIS or attach documentation with this information to this application: Insert.	<input type="checkbox"/> I have attached the required supporting information.	
	<input type="checkbox"/> No →	Please list the activities that were not included in the EIS or attach documentation with this information to this application: Insert.			
<input type="checkbox"/> I have attached the required supporting information.					
<input type="checkbox"/> Yes					

**10.1 Environmental risks**

Have the environmental risks or the way the activity/activities are proposed to be carried out changed since the EIS was completed?*
<input type="checkbox"/> No
<input type="checkbox"/> Yes

**10.2 Coordinator-General's conditions**

Are there CG's conditions that relate to the activities being applied for?*									
<input type="checkbox"/> No → Go to <i>Question 11</i> .									
<input type="checkbox"/> Yes → Name of the CG's evaluation report: Insert. <b>Also</b> list any standard conditions that are not the same as the conditions stated in the CG's evaluation report in <i>Question 4</i> above, <b>and</b> provide any conditions stated in the CG's evaluation report that are additional to the standard conditions below or attach them to this application: <table border="1" style="margin-left: 20px;"> <tr><td>Insert.</td></tr> <tr><td>Insert.</td></tr> <tr><td>Insert.</td></tr> <tr><td>Insert.</td></tr> <tr><td>Insert.</td></tr> <tr><td>Insert.</td></tr> <tr><td>Insert.</td></tr> <tr><td>Insert.</td></tr> <tr><td>Insert.</td></tr> </table> <input type="checkbox"/> I have attached any additional conditions from the CG's evaluation report to this application.	Insert.	Insert.	Insert.	Insert.	Insert.	Insert.	Insert.	Insert.	Insert.
Insert.									
Insert.									
Insert.									
Insert.									
Insert.									
Insert.									
Insert.									
Insert.									
Insert.									

**11 Assessment of the environmental impact**

This question is **not applicable** if an EIS process under the SDPWO Act has been completed for all the activities that are the subject of this application **and** the environmental risks of the activities and the way they are proposed to be carried out has not changed since the EIS was completed.

## Variation application for a new environmental authority for a resource activity

You must attach to this application an assessment of the likely impact of each ERA on environmental values, to the extent that it is relevant to the proposed variation to the standard condition/s (\*if applicable), including:

- a description of the environmental values likely to be affected by each relevant activity
- details of any emissions or releases likely to be generated by each relevant activity
- a description of the risk and likely magnitude of impacts on the environmental values
- details of the management practices proposed to be implemented to prevent or minimise adverse impacts
- details of how the land the subject of the application will be rehabilitated after each relevant activity ceases.

I have attached an assessment of the environmental impact and specific supporting information.

### 12 Details of waste management

Describe the proposed measures for minimising and managing waste generated by the proposed activity/activities below or attach supporting information to this application\*

This type of operation generally only creates waste akin to household waste. All rubbish will be removed from site and disposed of at the local refuse centre.

I have attached the proposed measures.

### 13 Payment of fees

You are required to pay an application fee at the time of application. If your application is approved you will be required to pay a fee annually. Each ERA has a regulated fee and the annual fee will be the highest annual fee of any ERA associated with the project. The first annual fee will be invoiced when one or more of the tenures are granted. Information on fees is available on the Business Queensland website at [www.business.qld.gov.au](http://www.business.qld.gov.au).

The application fee is\*: \$947.70

## Variation application for a new environmental authority for a resource activity


Please enclose a cheque or money order for the application fee payable to the Department of Environment and Science. Alternatively, to pay by credit card you must complete this application online through Online Services at <https://business.qld.gov.au/running-business/environment/online-services>.

### 14 Applicant declaration

I declare that the information I have provided is true and correct. I understand that it is an offence under the *Environmental Protection Act 1994* to give information that I know is false, misleading or incomplete.

I will comply with all conditions on my environmental authority as well as any relevant provisions in the *Environmental Protection Act 1994*.

I understand that I am responsible for managing the environmental impacts of these activities, and that approval of this application is not an endorsement by the administering authority of the effectiveness of the management practices proposed or implemented.

Applicant's full name*	Applicant's position (*if an organisation)
Claire Mackney	Tenement Manager
Applicant's signature*	Date*
	13/08/2023

### Important note: Estimated rehabilitation cost (ERC)

It is a condition of all environmental authorities for resource activities, under section 297 of the EP Act, that the holder must not carry out, or allow the carrying out of, a resource activity under the authority unless an ERC decision is in effect, and the holder has paid scheme assurance and complied with the requirements under the *Mineral and Energy Resources (Financial Provisioning) Act 2018* for paying this assurance. If your application for an environmental authority is approved, you must lodge a separate application for an ERC decision either using Online Services<sup>8</sup> or by submitting the approved form *Application for a Decision on the Estimated Rehabilitation Cost*<sup>9</sup> (publication number ESR/2018/4426). For further information regarding the estimated rehabilitation cost, refer to Guideline *Estimated rehabilitation cost under the Environmental Protection Act 1994*<sup>10</sup> (publication number ESR/2018/4425).

Once you have submitted your resource application and received your tenure number, please submit this completed application by post using the address provided below:

**Post:**

Permit and Licence Management  
Department of Environment and Science  
GPO Box 2454  
BRISBANE QLD 4001

**Further information:**

[www.business.qld.gov.au](http://www.business.qld.gov.au)  
Email: [palm@des.qld.gov.au](mailto:palm@des.qld.gov.au)  
Phone: 13 QGOV (13 74 68)

<sup>8</sup> Certain applications to DES can be made using Online Services. For more information and to register to use Online Services go to <https://business.qld.gov.au/running-business/environment/online-services>.

<sup>9</sup> This form is available on the Queensland Government website at [www.qld.gov.au](http://www.qld.gov.au), using the publication number ESR/2018/4426 as a search term.

<sup>10</sup> This form is available on the Queensland Government website at [www.qld.gov.au](http://www.qld.gov.au), using the publication number ESR/2018/4425 as a search term.

**Variation application for a new environmental authority for a resource activity**

---

**Privacy statement**


The Department of Environment and Science (the Department) and the Department of Resources are collecting the information on this form in accordance with and as authorised by Chapter 5 of the *Environmental Protection Act 1994* (EP Act).

Pursuant to section 540 of the EP Act, the Department is required to maintain a register of certain documents and information authorised under the EP Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able to take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the EP Act. There is no general discretion allowing the Department to withhold documents or information required to be kept on the public register. For more information on the Department's public register, search 'public register' at [www.qld.gov.au](http://www.qld.gov.au). For queries about privacy matters please email [privacy@des.qld.gov.au](mailto:privacy@des.qld.gov.au) or telephone 13 74 68.

## Variation application for a new environmental authority for a resource activity

**Attachment 1—Joint applicants and appointment of principal applicant**

We are joint applicants for this environmental authority and hereby appoint: Insert.  
as the principal applicant to receive statutory documents relating to this application.

Name—individual or contact person if applicant is an organisation Michael Joseph Kentwell	Suitable operator reference number 100380209
Organisation name, including any trading name (if an organisation) Insert.	ABN/ACN (if an organisation) Insert.
Residential or registered business address (not a post office box) 22 Earl Street, Jorndaryan Qld 4403	Phone 0447820260
Postal address (if different from above) AS ABOVE	Facsimile Insert.
Email hrjunknstuff@hotmail.com	<input type="checkbox"/> Indicate if you want to receive correspondence via email
Signature  Claire Mackney	Date 13/08/2023

Name—individual or contact person if applicant is an organisation Insert.	Suitable operator reference number Insert.
Organisation name, including any trading name (if an organisation) Insert.	ABN/ACN (if an organisation) Insert.
Residential or registered business address (not a post office box) Insert.	Phone Insert.
Postal address (if different from above) Insert.	Facsimile Insert.
Email Insert.	<input type="checkbox"/> Indicate if you want to receive correspondence via email
Signature	Date Insert.

Name—individual or contact person if applicant is an organisation Insert.	Suitable operator reference number Insert.
Organisation name, including any trading name (if an organisation) Insert.	ABN/ACN (if an organisation) Insert.
Residential or registered business address (not a post office box) Insert.	Phone Insert.
Postal address (if different from above) Insert.	Facsimile Insert.
Email Insert.	<input type="checkbox"/> Indicate if you want to receive correspondence via email
Signature	Date Insert.

# Assessment of the environmental impact

Holder: Gerard Francis Lowien & Michael Joseph Kentwell

Permit number/s: ML 100345

## Background

ML 100345 is applied for within the Blair Athol State Forest. Parts of the northern end of the permit are a distance of 185 metres from the mapped boundary for Regional Ecosystems 11.3.1, 11.3.2 and 11.3.25.

The mining operation is proposed to be a seasonal alluvial and eluvial concern. Mineralisation will be extracted by way of push and detect for the most part. Small areas will be disturbed by an excavator/loader with metal detecting being the principal methodology of extracting minerals at surface and sub-surface.

Overburden and low grade material will be stockpiled to be used in final rehabilitation. Large trees will be left in place where practical to assist with stabilisation of the land. Eluvial material will be returned to where it was extracted from. Re-seeding of areas with native grasses and trees. Rehabilitation will be progressive and ongoing as part of our rehabilitation plan with monitoring to be ongoing to ensure stabilisation of land form.

A small camp may be constructed on the mining lease to allow for accommodation on site.

## A description of the environmental values likely to be affected by each relevant activity

### Water

The mining methodology proposes to have little impact on seasonal water courses and surface flow. Operations will occur in the dryer, cooler months of the year.

### Ground Water

The proposed mining methodology is shallow surface operations. It is anticipated that there will be no impact to groundwater in this operation, particularly given that operations will only be undertaken in the dry season.

### Wetlands

There are no wetlands identified within the area of the lease or surrounding land.



# Assessment of the environmental impact

## Land and Land Use

The parcel of land on which this mining lease is located is currently designated as State Forest and Lands Lease (grazing). The permit is surrounded by other mining tenure, including a large coal mining lease application directly to the north of the permit. The parcel 2RU38 is also designated for a future General Permission Area (under the Fossicking Act 1994). The addition of this permit comprising an area of 30.57 hectares does not provide significant additional impact upon the current and proposed land usage.

## Acoustic

The seasonal operation is likely to add to the noise created by existing mining operations in the area, however the noise, by the nature of the mining, will be for a few hours of the day throughout the dry season. This is also the peak season for tourists, locals and those engaging in fossicking and metal detecting activities, many of these visitors will be entering via 4WD vehicles which also contribute to the acoustic values of the area.

## Air

This kind of operation will create some dust with the movement of the soil surface. This is proposed to be minimised by only clearing small areas at a time with consideration to the daily wind conditions.

## Waste

With consideration to the State Forest values, all waste (principally domestic in this type of operation) will be removed to the local refuse centre.

## Details of any emissions or releases likely to be generated by each relevant activity

The only foreseeable emissions will be the exhaust from the machinery in use on site and the 4WD vehicle used to enter the site.

## A description of the risk and likely magnitude of impacts on the environmental values

The mining operation, by its nature will impact upon the category C environmentally sensitive area, being the Blair Athol State Forest. Excavation and rehabilitation are proposed to be undertaken in a way so as to ensure that rehabilitation is progressive and ongoing to ensure that revegetation of disturbed areas is successful and monitored throughout the life of the permit.

# Assessment of the environmental impact

## Details of the management practices proposed to be implemented to prevent or minimise adverse impacts

Rehabilitation will be progressive and ongoing. Revegetation of disturbed areas will be assisted by seed and seedlings where appropriate. Monitoring of vegetation growth and stabilisation of the land form will be monitored as mining progresses.

## Details of how the land subject of the application will be rehabilitated after each relevant activity ceases

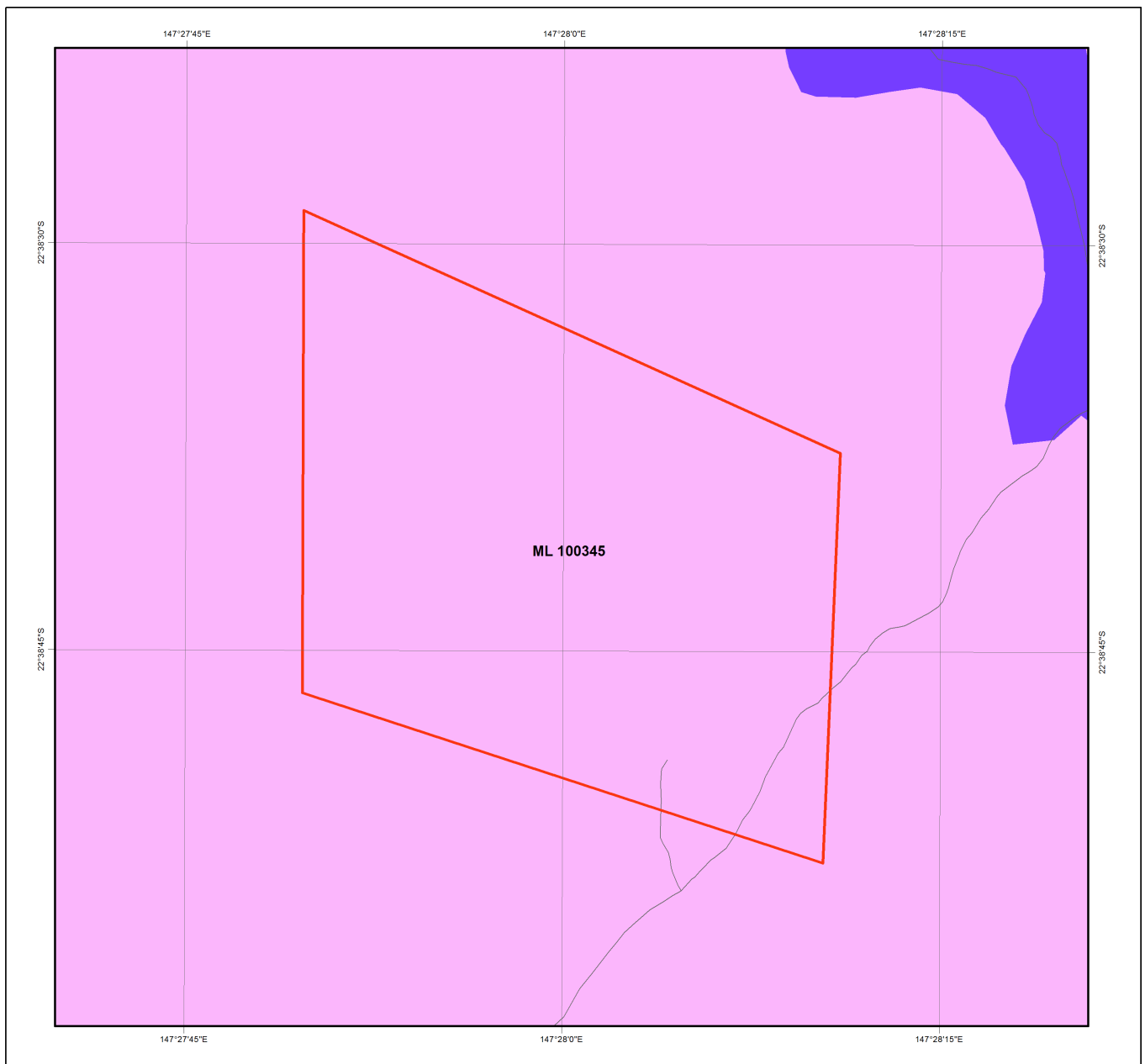
Overburden and lowgrade material will be stockpiled to be used in final rehabilitation. Large trees will be left in place where practical to assist with stabilisation of the land. Alluvial wash will be returned to creeks from which they were removed. Reseeding of areas with native grasses and trees as appropriate. Rehabilitation will be progressive and ongoing as part of our rehabilitation plan. Monitoring of the rehabilitation areas will continue throughout the permit life to ensure that the land is returned as near to the pre-mining condition as possible.

## Additional attachments:

ML 100345 environmentally sensitive area map

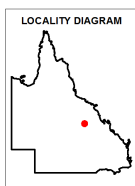
Regional ecosystem details for 11.3.1, 11.3.2 & 11.3.25

Satellite imagery of ML 100345 with Endangered Regional Ecosystem layer



### ENVIRONMENTALLY SENSITIVE AREAS - Mining Activities

- Selected Mining Lease (ML)
- CATEGORY A**
- National Parks
- Conservation Parks
- Forest Reserves
- Special Wildlife Reserve
- Wet Tropics World Heritage Area
- Great Barrier Reef Marine Park Area
- Marine Parks other than General Use Zones
- CATEGORY B**
- Queensland Heritage Register Places
- Ramsar Sites
- Cultural Heritage Registered Areas and DLA's other than Stanbroke
- Special Forestry Areas
- Seaward Side of Highest Astronomical Tide
- Fish Habitat Areas
- Coordinated Conservation Areas
- Endangered Regional Ecosystems - regrowth and remnant (Biodiversity Status)
- General Use Zones of Marine Parks
- Marine Plants
- CATEGORY C**
- Nature Refuges
- Resources Reserve
- State Forests
- Timber Reserves
- River Improvement Areas
- Stanbroke DLA
- Coastal Management District
- Dams and Weirs
- OTHERS**
- Towns
- Roads
- Repealed Wild River Nominated Waterways
- Repealed Wild River Preservation Areas
- Repealed Wild River High Preservation Areas
- Mahogany Glider Habitat
- Directory of Important Wetlands
- Queensland



This product is projected into GDA 1994 MGA Zone 55

Information presented on this product is distributed by the Queensland Government as an information source only. While every care is taken to ensure the accuracy of this data, the State of Queensland makes no statements, representations or warranties about the accuracy, reliability, completeness or suitability of any information contained in this product.

The State of Queensland disclaims all responsibility for information contained in this product and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you may incur as a result of the information being inaccurate or incomplete in any way for any reason.

**NOTE TO USER:** Themes presented in this map are indicative only. Field survey may be required to verify the 'true' spatial extent and value. Not all environmentally sensitive areas are presented in this map. A user should refer to the particular circumstances relevant to their situation to assess the 'completeness' of themes provided.

The user should note that some boundaries and indicated values are ambient and may change over time (e.g. regional ecosystem boundaries and conservation status, watercourse mapping etc).

The user should be aware that due to multiple overlapping themes/layers present, some themes/layers may be obscured by others. Ordering in the Legend does not accurately reflect the order by which themes/layers are displayed.



Queensland Government home > For Queenslanders > Environment, land and water > Plants and animals > Plants > Regional ecosystems > Regional ecosystem descriptions > **Regional ecosystem details for 11.3.1**

## Regional ecosystem details for 11.3.1

Regional ecosystem	11.3.1
Vegetation Management Act class	Endangered
Wetlands	Not a Wetland
Biodiversity status	Endangered
Subregion	11, 37, 7, 6, 3, 5, (8), (31), (15), (1), (13), (18), (21), (14), (4), (2), (2), (9), (19), (33), (24), (17), (16), (12), (6.2), (35), (27), (29), (36), (32), (23), (26), (34), (1), (4.4), (9.4), (10.2), (22), (6.1), (10.4), (6.3), (10.3)
Estimated extent <sup>1</sup>	Pre-clearing 784000 ha; Remnant 2019 81000 ha
Extent in reserves	Low
Short description	Acacia harpophylla and/or Casuarina cristata open forest on alluvial plains
Structure category	Mid-dense
Description	Acacia harpophylla and/or Casuarina cristata open forest (particularly in southern parts), with or without scattered emergent Eucalyptus spp. such as E. coolabah, E. largiflorens, E. populnea, E. orgadophila, and E. woollsiana. A low tree layer dominated by Geijera parviflora and Eremophila mitchellii is usually present. The vegetation sometimes occurs as low open forest or woodland. The ground stratum is usually sparse. Associated with Cainozoic alluvial plains which may be

occasionally flooded. Landforms range from level to very gently sloping plains, alluvial flats, drainage floors, back-swamps and abandoned channels. Associated soils are predominantly deep to very deep cracking clays, sometimes with gilgai or texture contrast soils with sandy surface (particularly where *Eucalyptus populnea* is present). (BVG1M: 25a)

Vegetation communities in this regional ecosystem include:

11.3.1a: [Not in RE version 12.1]<sup>2</sup>: This vegetation community is now mapped as 11.3.1. *Eucalyptus orgadophila* woodland on alluvium with basaltic influence.

Occurs on alluvium with basaltic influence. Not a Wetland (BVG1M: 25a)

11.3.1b: *Acacia harpophylla* and/or *Casuarina cristata* open forest (particularly in southern parts), generally with scattered emergent *Eucalyptus* spp. such as *E. coolabah*, *E. largiflorens*, *E. populnea*, *E. orgadophila*, and *E. woollsiana*. A low tree layer may be present with species such as *Terminalia* spp., *Eremophila* spp. and *Lysiphyllum* spp. common. The ground layer may be sparse with *Duma florulenta* and a range of sedges prominent in depressions. Associated with closed and drainage depressions on Cainozoic alluvial plains. Characteristic landforms include drainage floors, back-swamps and abandoned channels. Associated soils are predominantly deep to very deep cracking clays, sometimes with gilgai or texture contrast soils with sandy surface (particularly where *Eucalyptus populnea* is present). Palustrine (BVG1M: 25a)

11.3.1d: *Acacia omalophylla* low open forest +/- *A. harpophylla* fringing or mixed with open areas. Occurs on old lake bed. Palustrine (BVG1M: 25a)

Supplementary description	Gunn et al. (1967), Alpha (3), Blackwater (5), Borilla (5), Comet (6, 7), Craven (6), Cungelella (4), Borilla (5), Disney (4), Durrandella (5), Hillalong (4), Hope (4), Islay (5), Lennox (5), Loudon (6), Monteagle (6), Pinehill (4), Portwine (4), Rutland (6), Skye (5), Somerby (6), Tichbourne (5), Ulcanbah (4), Wharton (6), Willows (5); Story et al. (1967), Barwon (4), Comet (3, 5), Connors (6), Funnel (3), Monteagle (6), Somerby (6); Speck et al. (1968), Barwon (4), Coreen (3-6), Dakenba (5-8), Eurombah (10, 11), Ramsay (8); Galloway et al. (1974), LU 50, 70; Gunn and Nix (1977), LU 127, 132; Vandersee (1975), Dalby (4); Neldner (1984), 6 (124); Forster and Barton (1995), Coreen; Burgess (2003) Honeycomb, Tralee, Langley
Protected areas	Culgoa Floodplain NP, Carnarvon NP, Nairana NP, Belmah RR, Albinia NP, Narrien Range NP, Junee NP, Mazeppa NP, Mount O'Connell NP, Rundle Range RR, Rundle Range NP, Mount Etna Caves NP, Blackwood NP, Lake Broadwater CP, Nuga Nuga NP, Expedition NP
Special values	Habitat for threatened fauna species including painted honeyeater, <i>Grantiella picta</i> particularly in subregion 35 (Oliver et al. 2003).
Fire management guidelines	INTERVAL: n/a. b, d: Occasional fires 5 - 10 years. STRATEGY: Maintain fire management of surrounding country so that wildfires will be very limited in extent. Frequent fire at the edge of this RE keeps fuel loads low. Protection from fire is necessary. ISSUES: <i>Casuarina cristata</i> is fire sensitive, although germination can be good in bare areas. <i>Brigalow</i> is soft-seeded, so germination is not promoted by fire.

Buffel grass invasion will increase risk from fire. High intensity fires will cause damage to overstorey. Grazing may be an option for reducing fuel loads where exotic grass such as buffel have invaded.

---

**Comments**

11.3.1: Regional Ecosystem 11.3.1a has been amalgamated into this RE. Extensively cleared for cropping and pasture. 11.3.1b: Extensively cleared for cropping and pasture. Occurs in depressions and abandoned channels on Cainozoic alluvial plains of Brigalow. May grade into Eucalyptus coolabah dominated associations with variation in seasonal flooding regimes.

---

<sup>1</sup> Estimated extent is from version 12.1 pre-clearing and 2019 remnant regional ecosystem mapping. Figures are rounded for simplicity. For more precise estimates, including breakdowns by tenure and other themes see [remnant vegetation in Queensland \(https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/remnant-vegetation/\)](https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/remnant-vegetation/).

<sup>2</sup> Superseded: Revision of the regional ecosystem classification removed this regional ecosystem code from use. It is included in the regional ecosystem description database because the RE code may appear in older versions of RE mapping and the Vegetation Management regulation.

 (<https://creativecommons.org/licenses/by/4.0/>)

Last updated 8 December 2021

---

Copyright (<https://www.qld.gov.au/legal/copyright/>)

Disclaimer (<https://www.qld.gov.au/legal/disclaimer/>)

Privacy (<https://www.qld.gov.au/legal/privacy/>)

Right to information (<https://www.qld.gov.au/right-to-information/>)

© The State of Queensland 1995–2022

Queensland Government (<https://www.qld.gov.au/>)



Queensland Government home > For Queenslanders > Environment, land and water > Plants and animals > Plants > Regional ecosystems > Regional ecosystem descriptions > **Regional ecosystem details for 11.3.2**

## Regional ecosystem details for 11.3.2

Regional ecosystem	11.3.2
Vegetation Management Act class	Of concern
Wetlands	Contains Palustrine
Biodiversity status	Of concern
Subregion	26, 24, 11, 6, 13, 15, (7), (8), (16), (9), (2), (21), (32), (27), (31), (5), (1), (35), (29), (3), (25), (36), (2), (22), (33), (34), (37), (6.4), (18), (12), (14), (23), (17), (4), (4.4), (38), (28), (19), (3), (6.1), (9.4), (10.4), (6.2), (6.3), (13.3), (8.3)
Estimated extent <sup>1</sup>	Pre-clearing 1914000 ha; Remnant 2019 503000 ha
Extent in reserves	Low
Short description	Eucalyptus populnea woodland on alluvial plains
Structure category	Sparse
Description	Eucalyptus populnea woodland to open woodland. Occasionally, E. melanophloia or E. crebra may be present. A secondary tree layer may occur and include species such as Geijera parviflora, Eremophila mitchellii, Acacia salicina, Cassia brewsteri, and Acacia excelsa. The ground layer is dominated by a range of tussock grasses, including Chloris spp., Enteropogon spp., and Aristida spp. Occurs on Cainozoic alluvial plains with variable soil types including texture contrast, deep uniform clays,

massive earths and sometimes cracking clays. (BVG1M: 17a)

Vegetation communities in this regional ecosystem include:

11.3.2a: *Eucalyptus conica* woodland. Not a Wetland (BVG1M: 17a)

11.3.2b: *Eucalyptus camaldulensis* (sometimes *E. populnea* and/or *E. tereticornis*) woodland in drainage depressions. Ground layer of grasses or sedges. Occurs on seasonally inundated drainage depressions. Palustrine (BVG1M: 17a)

11.3.2c: [Not in RE version 12.1]<sup>2</sup>: This vegetation association is now mapped as RE 11.3.2. *Eucalyptus populnea* woodlands on floodplains. Not a Wetland (BVG1M: 17a)

Supplementary description	Dawson (1972), 1, 3, 4, 5; Fensham (1998a); Fensham and Fairfax (1997); Galloway et al. (1974), LU62, LU64, LU68; Gunn et al. (1967), Alpha; Mullins (1980); Tavoy; Neldner (1984), 23b (48), 24 (41); Speck et al. (1968), Wooroonah; Story et al. (1967); Connors, Funnel; Vandersee (1975); Oakey, Brookstead; Burgess (2003), Parrot, Roper, Stephens
Protected areas	Carnarvon NP, Expedition (Limited Depth) NP, Homevale RR, Chesterton Range NP, Homevale NP, Expedition NP, Expedition RR, Tregole NP, Nuga Nuga NP, Wondul Range NP, Blackdown Tableland NP, Isla Gorge NP, Belmah RR, Alton NP, Dawson River CP, Narrien Range NP, Bouldercombe Gorge RR, Lake Murphy CP, Carraba CP, Homevale CP, Highworth Bend CP, Lake Broadwater CP, Lake Broadwater RR
Special values	Habitat for threatened flora species <i>Homopholis belsonii</i> . This ecosystem is also known to provide suitable habitat for koalas ( <i>Phascolarctos cinereus</i> ).
Fire management guidelines	SEASON: Late wet to early dry season when there is good soil moisture. Early storm season or after good spring rains. INTENSITY: Low to moderate. INTERVAL: 6-10 years (shorter in north of bioregion: 2-7 years). STRATEGY: Restrict to less than 30% in any year. Burn under conditions of good soil moisture and when plants are actively growing. Sometimes a small amount of wind may move the fire front quickly so that burn intensity is not too severe to destroy habitat trees. ISSUES: Burn interval for conservation purposes will differ from that for grazing purposes; the latter being much shorter. Management of this vegetation type should be based on maintaining vegetation composition, structural diversity, fauna habitats (in particular hollow-bearing trees and logs) and preventing extensive wildfire. Maintaining a fire mosaic will help ensure protection of habitat and mitigate against wildfires. Fire can control shrub invasives (e.g., <i>Eremophila</i> spp. and <i>A. stenophylla</i> in the red soil country in particular). Fire will also control cypress. Low to moderate intensity burns with good soil moisture are necessary to minimise loss of hollow trees. Avoid burning riparian communities as these can be critical habitat for some species. Culturally significant (scar) trees may need protection, such as rake removal of ground fuels. Planned burns have traditionally been carried out in the winter dry season; further research required.
Comments	11.3.2: There are unmapped patches of low <i>Acacia harpophylla</i> (11.3.1) or grassland



(11.3.21) associated with this regional ecosystem in some areas. This regional ecosystems may include small areas dominated by *Acacia pendula* (Neldner 1984, Association 41). Regional Ecosystem RE 11.3.2c has been amalgamated into this RE. Extensively cleared or modified by grazing.

---

<sup>1</sup> Estimated extent is from version 12.1 pre-clearing and 2019 remnant regional ecosystem mapping. Figures are rounded for simplicity. For more precise estimates, including breakdowns by tenure and other themes see [remnant vegetation in Queensland \(https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/remnant-vegetation/\)](https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/remnant-vegetation/).

<sup>2</sup> Superseded: Revision of the regional ecosystem classification removed this regional ecosystem code from use. It is included in the regional ecosystem description database because the RE code may appear in older versions of RE mapping and the Vegetation Management regulation.

 (<https://creativecommons.org/licenses/by/4.0/>)

Last updated 8 December 2021

---

Copyright (<https://www.qld.gov.au/legal/copyright/>)

Disclaimer (<https://www.qld.gov.au/legal/disclaimer/>)

Privacy (<https://www.qld.gov.au/legal/privacy/>)

Right to information (<https://www.qld.gov.au/right-to-information/>)

© The State of Queensland 1995–2022

Queensland Government (<https://www.qld.gov.au/>)



Queensland Government home > For Queenslanders > Environment, land and water > Plants and animals > Plants > Regional ecosystems > Regional ecosystem descriptions > **Regional ecosystem details for 11.3.25**

## Regional ecosystem details for 11.3.25

Regional ecosystem	11.3.25
Vegetation Management Act class	Least concern
Wetlands	Riverine
Biodiversity status	Of concern
Subregion	26, 11, 1, 6, 2, (14), (3), (7), (24), (15), (32), (13), (18), (29), (1), (22), (31), (12), (36), (25), (2), (27), (16), (9), (21), (33), (35), (5), (37), (23), (4), (8), (4.4), (3), (34), (19), (17), (28), (9.4), (6.4), (6.2), (8.3), (8.4), (6.1), (13.3), (10.4), (12.1), (12.5), (12.6), (8.6), (6.3), (7.5)
Estimated extent <sup>1</sup>	Pre-clearing 804000 ha; Remnant 2019 519000 ha
Extent in reserves	Low
Short description	Eucalyptus tereticornis or E. camaldulensis woodland fringing drainage lines
Structure category	Sparse
Description	Eucalyptus tereticornis or E. camaldulensis woodland to open forest. Other tree species, including Casuarina cunninghamiana, E. coolabah, Melaleuca bracteata, Melaleuca viminalis, Livistona spp. (in north), Melaleuca spp. and Angophora floribunda, may occur. An tall shrub layer may occur, including Acacia salicina, A. stenophylla and Lysiphyllum carronii. Low shrubs are present, but rarely form a

conspicuous layer. The ground layer is open to sparse and dominated by perennial grasses, sedges or forbs. Occurs on fringing levees and banks of major rivers and drainage lines of alluvial plains throughout the region. Soils are very deep, alluvial, grey and brown cracking clays with or without some texture contrast. These are usually moderately deep to deep, soft or firm, acid, neutral or alkaline brown sands, loams or black cracking or non-cracking clays, and may be sodic at depth (Burgess 2003). (BVG1M: 16a)

Vegetation communities in this regional ecosystem include:

11.3.25a: *Eucalyptus raveretiana* (sometimes emergent), *Eucalyptus tereticornis* and *Melaleuca fluviatilis* woodland. A range of other species may be present including *Melaleuca leucadendra*, *Corymbia clarksoniana*, *Casuarina cunninghamiana*, *Melaleuca viminalis* and *Nauclea orientalis*. There is often a dense low tree layer dominated by species such as *Acacia salicina*, *Geijera salicifolia*, *Diospyros humilis* and *Mallotus philippensis*. Riverine (BVG1M: 22c)

11.3.25b: *Melaleuca leucadendra* and/or *M. fluviatilis*, *Nauclea orientalis* open forest. A range of other canopy or sub-canopy tree species also occur including *Pandanus tectorius*, *Livistona* spp., *Eucalyptus tereticornis*, *Corymbia tessellaris*, *Millettia pinnata*, *Casuarina cunninghamiana*, *Livistona decora*, *Lophostemon suaveolens* or *L. grandiflorus*, rainforest species and, along drainage lines, *Eucalyptus camaldulensis* or *E. tereticornis*. A ground layer of tall grasses such as *Chionachne cyathopoda*, *Mnesithea rottboellioides* or *Heteropogon triticeus* may be present. Often occurs on coarse sand spits and levees within larger river channels. Riverine (BVG1M: 22c)

11.3.25c: *Eucalyptus camaldulensis* or *E. tereticornis* open forest to woodland. Occurs fringing drainage lines derived from Serpentinite. Riverine (BVG1M: 16a)

11.3.25d: *Melaleuca bracteata* woodland to open forest. Occurs on fringing alluvial soils or near-channel levees on heavy wet clays. Riverine (BVG1M: 22c)

11.3.25e: *Eucalyptus camaldulensis*, *E. tereticornis* woodland fringing larger, permanent water courses. A range of other tree species commonly occur including *Melaleuca trichostachya*, *Casuarina cunninghamiana*, and *Melaleuca viminalis*. Ground layer is composed of grasses and forbs. Occurs fringing permanent watercourses. Riverine (BVG1M: 16a)

11.3.25f: Main river channels. Open water or exposed stream beds and bars. Usually devoid of emergent vegetation although scattered trees and shrubs such as *Melaleuca viminalis* or *Melaleuca* spp. May be present and aquatic species may be abundant particularly in water holes and lagoons. Occurs in river channels. Riverine (BVG1M: 16d)

11.3.25g: Vegetation is seasonal and may consist of open water and/or a range of mainly aquatic species such as *Nymphoides crenata* or *Hydrilla verticillata*. Often with fringing woodland, commonly *E. camaldulensis* or *E. coolabah* and a ground layer that may include species such as *Pseudoraphis spinescens*, *Marsilea drummondii*, *M. mutica*, *Persicaria subsessilis* and *Eleocharis* spp. Occurs on waterholes in larger drainage lines and rivers. Riverine (BVG1M: 16d)

11.3.25h: *Melaleuca viminalis* low open forest to low woodland, often in association with *Melaleuca trichostachya*, occasionally with *Cryptocarya triplinervis*, and sometimes with emergent layer of *Eucalyptus tereticornis* or *Casuarina cunninghamiana*. The shrub layer is sparse but includes *Ficus opposita*. The ground

layer includes *Lomandra hystrix* and *Oplismenus aemulus*. Occurs fringing drainage lines. Riverine (BVG1M: 22c)

Supplementary description	Dawson (1972), 1; Dowling and Stephens (1997), 8b; Fensham (1998a); Fensham and Fairfax (1997); Gunn et al. (1967), Funnel; Mullins (1980), Tavoy, Lynwood; Neldner (1984), 18c; Speck et al. (1968), Kroombit; Taylor and Grimshaw (1994-95), Goondiwindi MU9C; Burgess (2003), German, Isaac; Gunn and Nix (1977) LU 122
Protected areas	Carnarvon NP, Expedition (Limited Depth) NP, Homevale NP, Bowling Green Bay NP, Goodedulla NP, Expedition NP, Nairana NP, Blackdown Tableland NP, Eungella NP, Homevale RR, Expedition RR, Nuga Nuga NP, Lake Murphy CP, Albinia NP, Precipice NP, Mount Archer NP, Auburn River NP, Narrien Range NP, Wongaloo CP, Belmah RR, Cape Upstart NP, Princhester CP, Bell Creek CP, Tregole NP, Minerva Hills NP, Cania Gorge NP, Kroombit Tops NP, Rundle Range RR, Tooloombah Creek CP, Mount Hopeful CP, Bouldercombe Gorge RR, Vandyke Creek CP, Shoalwater Bay CP, Rundle Range NP, Dawson River CP, Tolderodden CP, Magnetic Island NP, Junee NP, Bukkulla CP, Blackwater CP, Mount O'Connell NP, Homevale CP, Highworth Bend CP, Baga NP, Magnetic Island CP 2, Bolger Bay CP, Paluma Range NP, Peak Range NP, Magnetic Island CP 1, Bowling Green Bay CP
Special values	Shown to be associated with a high fauna species richness in the Taroom area (Venz et al. 2002). Within parts of the Fitzroy catchment, this RE is known habitat for the threatened freshwater turtle <i>Rheodytes leukops</i> . Known to be important habitat for other riparian freshwater turtle species. This ecosystem is also known to provide suitable habitat for koalas ( <i>Phascolarctos cinereus</i> ).
Fire management guidelines	SEASON: Primarily early dry season. INTENSITY: Low. INTERVAL: 3 - 5 years. STRATEGY: Protection relies on broad-scale management of surrounding country with numerous small fires throughout the year so that wildfires will be very limited in extent. c-g: Depending on position in the landscape, protection depends on broad-scale management of surrounding country, with numerous small fires throughout the year so that wildfires will be very limited in extent. ISSUES: Fringing communities are critical habitat. In some situations it may be best not to burn. Intense and extensive fires degrade vegetation structure and destroy fauna habitats. Restrict the extent and intensity of fires. Hollow trees are critical habitat. Green panic may be an issue and an intensive grazing regime for very short periods, may be necessary to limit potential of wildfire. c-g: If burning is to occur then implement when water level is deep enough to protect the bases of aquatic plants. Sedges are disadvantaged by repeated fires. Impact of fire on rare and threatened plants associated with mound springs that include <i>Arthraxon hispidus</i> and <i>Dimeria</i> sp. ( <i>Salvator Rosa</i> R.J.Fensham RJF3643) should be considered. Boggomosses/springs can bounce back following fire but care should be taken where a dry peat layer has developed (particularly in degraded situations). Fire is an option for control of weeds (possibly in ungrazed situations). If riparian areas need to be burnt to reduce fuel loads then burning should occur when there is good soil moisture and active growth.

## Comments

11.3.25: Often associated with regional ecosystems 11.3.2 and 11.3.4 which may occur on adjacent alluvial plains. In highly cleared subregions a narrow fringe of riparian vegetation is often the only surviving woody vegetation. This regional ecosystem includes sandy or rocky banks and beds and water within channel which can be extensive in some of the larger coastal rivers. Impact by total grazing pressure. Weeds particularly \**Cryptostegia grandiflora* (rubber vine) (in the north of the bioregion) and \**Cenchrus ciliaris* (buffel grass) have invaded many areas. Some areas have been modified by weir construction (Eberhard 1999). Widespread throughout the bioregion. 11.3.25a: Occurs fringing drainage lines in northern sub coastal parts (subregion 1, 2 12 and 14) of the bioregion. Naturalised species associated with this regional ecosystem include \**Grewia asiatica*. As the low tree layer becomes denser, this vegetation community grades into 11.3.11. 11.3.25b: Occurs north of about Duaringa within the lower Dawson and upper Fitzroy Rivers. Weeds particularly rubber vine *Cryptostegia grandiflora* (in the north of the bioregion) and *Lantana camara* have invaded many areas. Very frequently disturbed by natural flood events 11.3.25g: Larger waterholes (> 5ha) are included here while smaller ones are included with river channels (11.3.25f). 11.3.25h: Occurs in isolated patches across the southern Brigalow Belt. Widely distributed in the Upper Burnett River catchment, including Three Moon Creek and on major streams in the Biloela-Banana areas. Naturalised species associated with this regional ecosystem include \**Megathyrsus maximus* and \**Cynodon dactylon*.

---

<sup>1</sup> Estimated extent is from version 12.1 pre-clearing and 2019 remnant regional ecosystem mapping. Figures are rounded for simplicity. For more precise estimates, including breakdowns by tenure and other themes see [remnant vegetation in Queensland](https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/remnant-vegetation/) (<https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/remnant-vegetation/>).

 (<https://creativecommons.org/licenses/by/4.0/>)

Last updated 8 December 2021

---

Copyright (<https://www.qld.gov.au/legal/copyright/>)

Disclaimer (<https://www.qld.gov.au/legal/disclaimer/>)

Privacy (<https://www.qld.gov.au/legal/privacy/>)

Right to information (<https://www.qld.gov.au/right-to-information/>)

© The State of Queensland 1995–2022

Queensland Government (<https://www.qld.gov.au/>)



# ML100345 Endangered Regional Ecosystem Map

Gerard Lowien and Michael Kentwell




A product of  
GeoResGlobe





Includes material © State of Queensland 2023. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

Imagery includes material © CNES reproduced under licensed from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2023

## Legend

 ML permit application

 ML surface area application

 Endangered regional ecosystem

Places: ML permit application

 ML 100345



0 500 metres

Scale: 1:25000

Printed at: A4

Print date: 13/8/2023

Projection: Web Mercator EPSG 102100 (3857)

For more information, visit  
<https://georesglobe.information.qld.gov.au/help-info/Contact-us.html>



**Queensland  
Government**  
Department of Resources

# ML100345 Endangered Regional Ecosystem Map

Gerard Lowien and Michael Kentwell



---

Esri, Geoscience Australia, NASA,  
NGA, USGS

Esri Community Maps Contributors,  
Department of Resources, Dept. of  
Environment and Science, Esri, HERE,  
Garmin, Foursquare, METI/NASA,  
USGS

© State of Queensland (Department of  
Resources) 2022

Maxar

© State of Queensland (Department of  
Resources) 2023