

How we will manage and reduce impacts on Flora and fauna



Wandoan Coal Project Fact Sheet



We are committed to managing and reducing our impacts on the local environment. The Wandoan Coal Project will manage operations with consideration for the flora, fauna and waterways that exist in and around the proposed mine site and its associated infrastructure.

Managing biodiversity

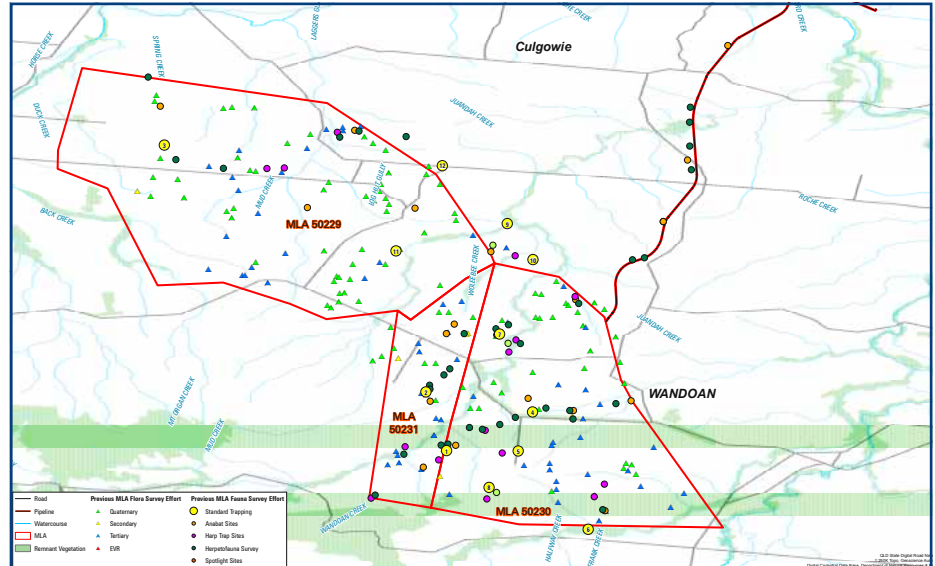
Prior to construction of the mine, a comprehensive Biodiversity and Land Management Plan will be developed outlining how we will care for and protect local flora and fauna during the construction and operational phases of the Project.

The plan will include:

- Using a qualified ecologist to carefully identify fauna which live in the areas that will need to be cleared and relocating them to a safe place that is similar in habitat
- Protecting local untouched habitats outside the mining lease that are similar to the land on which the mine will be located (an offsets program).
- Progressively rehabilitating and restoring habitats post-mining to maintain local wildlife
- Establishing best-practice mitigation measures such as fauna underpasses, overpasses and fencing to protect local animals
- Introducing a Feral Animal Management Program to help safeguard local wildlife
- Introducing a Weed Management Program that includes vehicle wash down procedures to limit the spread of weeds and herbs.

Biodiversity Offset Strategy

The Project will clear remnant and non-remnant vegetation, however within the mining lease application areas 82% of remnant vegetation and 53% of non-remnant vegetation will be retained.



Threatened species and ecological communities are sparsely distributed within the proposed mine area due to historical clearing for farming and grazing.

The Coordinator-General has conditioned that the Project prepare a Biodiversity Offset Strategy for approval by the Queensland Department of Environment and Resource Management and the Australian Department of Sustainability, Environment, Water, Population and Communities prior to the commencement of mining operations.

In consideration of the size, location, ecological integrity, protection status, local/regional significance and connectivity of regional ecosystems proposed to be cleared, the following minimum offset ratios are recommended to apply to all components of the Project:

- Zero offsets for 'least concern' regional ecosystems (*Vegetation Management (VM) Act 1999 (Qld)* status) or 'no concern at present' regional ecosystems (Biodiversity status)
- 1:2 offsets for 'of concern' regional ecosystems (VM Act status and/or Biodiversity status)
- 1:3 offsets for 'endangered' regional ecosystems (VM Act status and/or Biodiversity status).

Protecting local aquatic ecosystems

The Project's impacts on aquatic ecosystems are unlikely to be significant, provided that proposed mitigation measures are implemented. However, the Coordinator-General has conditioned that an Aquatic Ecosystem Monitoring Program be designed and implemented.

Greenhouse gas emissions

The Coordinator-General has conditioned the Project to develop and implement a Greenhouse Gas Reduction Management Plan in relation to the Scope 1 and Scope 2 emissions, including a policy on greenhouse gas emissions, annual monitoring of emissions, an Energy Management Plan covering energy efficiency and emissions control, and a Fugitive Gas Management Plan.

Protecting local landscapes

The comprehensive Biodiversity and Land Management Plan will outline how local landscapes will be managed during the construction and operational phases of the proposed mine.

Measures have been incorporated into the Project to mitigate long-term impact on the land and allow the return of land to its pre-mining use. These measures include:

- Mining and rehabilitation will be undertaken progressively so unmined land will remain suitable for agriculture and rehabilitated mine land will again become suitable for grazing during the life of the mine
- Design of post-mining landform will attempt to replicate the terrain that occurs naturally in the area
- Undisturbed land will be returned to, or retained in, its pre-mining land suitability class
- Tailings will be disposed of in mined-out pits and covered so no unrehabilitated tailings dam sites are planned in the final landform

Progressive rehabilitation of mining land

We will work with the local community and Government to plan for the responsible return of mining land to pasture or bushland.

Rehabilitation will be undertaken progressively so mined land will become suitable for these purposes as mining operations in an area come to an end. Rehabilitation will return mined areas and adjoining habitat, as much as possible, to pre-mining conditions using native vegetation and original pasture species.

Design of post-mining landform

The design of the post-mining landforms will replicate as much as possible, the two main terrain elements of the Wandoan district: the alluvial floodplains and low undulating hills.

While the topography can not be returned to the pre-mining profile, post-mining landforms will be constructed to a similar height, slope-angle and shape as occurs naturally in the area. Floodplains formed as part of the final landform will be of similar width and slope to those in the area pre-mining, as far as possible.

These measures can be described generally as:

- Concave slope profiles
- Slope gradients of up to 15% other than in final voids (see over for more detail)
- Irregular hill shapes (e.g. with uneven heights, ridgelines and spurs)
- Hill height of approximately 50 metres between the floor of the floodplain and the hill crest.

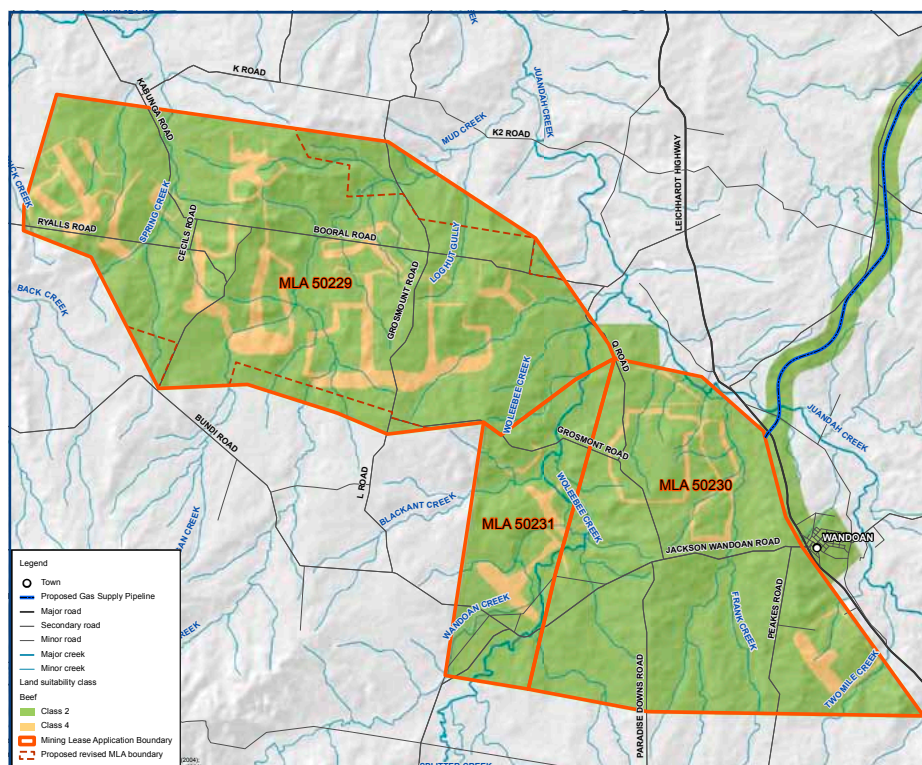
Post mining land use classifications

The Project will aim to minimise the change to land suitability classes that results from mining and ensure that the post-mining landform is stable, safe and sustainable. It is expected that the limitations of post-mining land use will broadly be:

- Land used for infrastructure components of the Project such as roads and workshops will have usage limitations related to water availability through compaction and breakdown of the subsoil structure. Where possible, this land will be returned to Class 3 cropping land or Class 2 grazing land, otherwise it will be returned to Class 4 cropping land or Class 3 grazing land.
- Overburden stockpiles will have usage limitations related to water availability, salinity, gradient, erosion and nutrient content. Flatter gradient sections of overburden stockpiles will be returned to Class 4 cropping land or Class 2 grazing land where possible. Steeper gradient overburden slopes will be returned to Class 5 cropping land or Class 4 grazing land.
- Final voids will be reshaped to reduced gradients, will have limitations similar to those listed for overburden stockpiles and will also be Class 4 for cattle grazing or Class 5 for cropping.

Strategic Cropping Land

In August 2010, the Queensland Government released a new policy framework for Strategic Cropping Land (SCL) to demonstrate its commitment to protecting Queensland's best cropping land. While the policy framework and draft trigger maps were available for public comment, the criteria for identification of SCL had not been developed. The extensive land suitability assessments that were undertaken as part of the EIS process concluded the mining lease application areas are land suitability Class 3 and Class 4.



Post-mining land suitability for cattle grazing.

To find out more:

Talk to a member of our project team, call our free-call information line **1800 052 797**. The EIS and the Coordinator-General's Report are available online at www.wandoancoal.com.au and can be viewed at the Xstrata Coal Shopfront in Royd Street, Wandoan.

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