



Proposed quarry will be located to the south of the Stockyard Hill Wangatta Road



STOCKYARD HILL WIND FARM PROPOSED WIND FARM QUARRY

October 2013

Origin is seeking to develop a quarry to supply crushed rock for use during the construction of the Stockyard Hill Wind Farm.

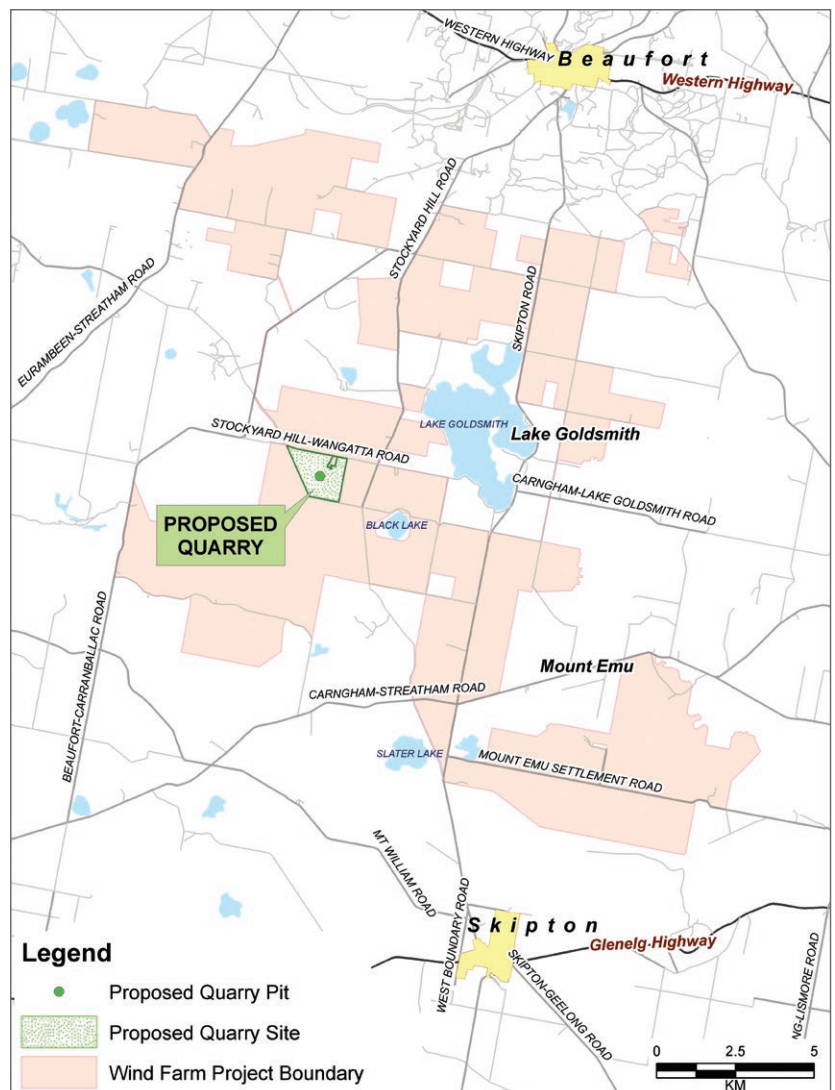
Origin is proposing to establish a temporary quarry within the Stockyard Hill Wind Farm project boundary. Following preliminary technical, social and economic assessments a preferred site was identified on farm land approximately 12 km south west of Beaufort, immediately south of the Stockyard Hill-Wangatta Road.

If developed, the quarry will help to supplement the large amounts of crushed rock and bulk fill material required to construct the wind farm, for a period of approximately three years. This type of material will be required for the access track network, hardstands, wind turbine foundations and for repair and possibly remediation of local roads.

In previous projects of similar size in the region the transport of materials caused impacts to local roads. Having this material available within the project site will help minimise the amount of truck movements on the public road network, particularly outside of the immediate project vicinity.

This guide has been developed to provide the community with an understanding of the proposed quarry including detail regarding the approvals process and technical studies that have been undertaken.

Proposed quarry location



Quarry proposal

The quarry will include the following features:

- A quarry pit to cater for the volume of basalt required – the pit is proposed to be approximately 300 m x 500 m in area;
- A water dam for surface water management and sediment control;
- Internal quarry access tracks;
- Overburden and top soil storage areas;
- Crushing and screening; and
- Site office, car parking, workshop and amenities.

As the quarry will be a temporary facility to support the construction of Stockyard Hill Wind Farm, it will be rehabilitated and returned to farmland following completion of wind farm construction.

The quarry has been positioned within the wind farm away from occupied residences with the nearest occupied residence approximately 1.7 km away and the second closest occupied residence approximately 2.3 km away. Positioning of the quarry has also considered native vegetation and waterways while allowing for a large number of wind turbines to be accessed from the quarry without the utilisation of public roads.

The quarry has been designed as a shallow pit to allow extraction near the surface in consideration of the groundwater table and also to support rehabilitation back to farmland.

Environmental and Planning Assessment and Approvals process

A Work Authority (a type of permit) is required for the operation and development of a temporary quarry such as the one proposed at Stockyard Hill Wind Farm. The Application for Work Authority will comprise a Work Plan (including accompanying studies and assessments) and an Environmental Management Plan detailing how all environmental impacts will be managed during establishment and operations of the proposed quarry.

Once endorsed by the Department of State Development, Business and Innovation (DSDBI) the Work Plan will form part of a planning permit application. This planning permit application will include a separate report to assess the proposed quarry against the provisions of the Pyrenees Shire Council Planning Scheme and will include additional reports to address issues outside the scope of the Work Plan including traffic, social and visual impacts.

Origin expects to submit the quarry Work Plan with the DSDBI in spring 2013.

The key findings of the assessments completed for the Work Plan are summarised here:

Air quality

The potential particulate impacts from the proposed quarry were assessed using the AUSPLUME modelling software.

The predicted ground level concentrations (GLC) of particles of 10 microns diameter (PM10), 2.5 microns diameter (PM 2.5) and Respirable Crystalline Silica (RCS) at the closest occupied residence (1.7 km) is expected to be less than half the criteria set down in the EPA Publication *Protocol for Environmental Management Mining and Extractive Industries*. Particulates generated by the quarry operations are predicted to be compliant with relevant air quality criteria at all occupied residences.

Noise

Noise levels were modelled around the quarry and at the nearest occupied residence (1.7 km). Noise levels at the nearest occupied residence are predicted to meet the recommended noises limits as specified in the EPA's Victorian Guidelines, *Noise from Industry*

in Regional Victoria (NIRV). Noise generated from the quarry is predicted to be compliant with relevant noise criteria at all occupied residences.

Groundwater

Groundwater monitoring wells were drilled on site and the groundwater level was determined to be between 14 – 25 m below ground level. The quarry pit is not expected to intersect with groundwater as the deepest part of the quarry pit is approximately 8 metres above the groundwater level.

Groundwater monitoring is proposed throughout operation under the Environmental Management Plan.

Blasting

Airblast and ground vibrations from blasting operations within the quarry will comply with the guideline limits set by DSDBI. Assessments have found that blasting, including management of flyrock can be conducted safely, in accordance with the relevant blasting standards. Vibration levels have been assessed and are predicted to be compliant with relevant vibration compliance limits.

Management procedures for vibration and blasting are set out within the Environment Management Plan (EMP).

Flora and Fauna

Flora and Stripped Legless Lizard assessments were conducted across the proposed site. Small areas were identified containing remnant native vegetation meeting threshold criteria for protection. Also a single scattered indigenous tree was also found. These will be avoided by the quarry. Stripped Legless Lizards were not detected during these assessments.

Cultural and built heritage

A desktop cultural heritage assessment was conducted across the proposed quarry site. This assessment identified no aboriginal cultural heritage and the site was deemed not to be within a cultural heritage 'sensitive area'. However, a voluntary Cultural Heritage Management Plan will be developed to ensure the appropriate management of Aboriginal cultural issues during development and operation of the proposed quarry.

Consultation

The lead article in the 13th edition of the Stockyard Hill Wind Farm newsletter (distributed throughout the district in May 2013) noted that Origin was undertaking a feasibility study in relation to its proposal to source crushed rock material locally.

Engagement has also occurred with State and local government agency stakeholders. These stakeholders have assisted in providing feedback on the initial feasibility assessment and on the development of the regulatory applications for the proposed quarry site.

Origin is now consulting directly with neighbours to the proposed quarry facility and will continue to provide project updates to the broader community via future editions of the Stockyard Hill Wind Farm project newsletter.

Following the submission of the planning application to the Pyrenees Shire Council the broader community will also have the opportunity to submit their views to decision makers. Origin will ensure all parties are notified when the planning permit application is lodged with the Pyrenees Shire Council.

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