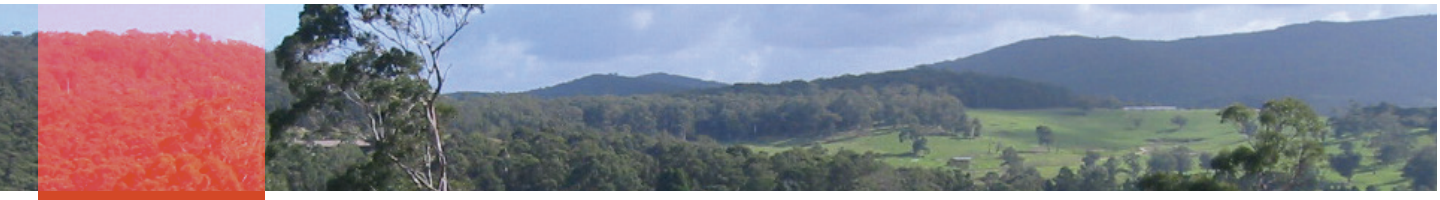

Bunyip North Quarry

PROJECT UPDATE

Project Overview

The Project is located in Bunyip North, Victoria on land which is currently utilised for grazing purposes. The site has been identified by Hanson as containing a granite rock resource of a quality and volume to meet future market needs given that Hanson's current accessible resources are steadily heading towards depletion.

DEDJTR (Department of Economic Development, Jobs, Transport and Resources) has identified the site as being located within an Extractive Industry Interest Area (EIIA) within the Cardinia Shire. The EIIA designation is applied to land that has been identified as being likely to contain stone resources of sufficient quantity and quality to support a commercial extractive industry operation.

The purpose of the EIIA as stated on the Energy and Earth Resources webpage is to:

- *'Provide a basis for the long term protection of stone resources from sterilisation by other land uses,*
- *Provide a basis for ensuring the long term availability of stone resources for use by the community and at minimal detriment to the environment,*
- *Assist in considering extractive industry values in long term strategic planning.*
- *Ensure that planning or responsible authorities consult with all relevant agencies about land use proposals which may impact on the reduction of stone resources within these areas, and*
- *Create an awareness that extractive industry is a possible land use in these areas.'*

Hanson consider the Project has the potential to provide a valuable resource to Victoria through its quality and quantity of stone, close proximity to the Melbourne market and excellent access to the major road network which is supported by its location in the EIIA.

Project Site

The Project Site is located in Bunyip North approximately eighty-two kilometres southeast of Melbourne, Victoria on land owned by Hanson and formally described as:

- 195 Tonimbuk Road, Bunyip North, Victoria 3815;
- 240 Sanders Road, Bunyip North, Victoria 3815;
- 310 Sanders Road, Bunyip North, Victoria 3815; and
- 5 Wallaby Court, Bunyip North, Victoria 3815.

Hanson also own a neighbouring land parcel which is not part of the project site described as:

- Michell Road, Bunyip North, Victoria 3815.

The Project Site is bound by Sanders Road to the north, private agricultural land to the southeast and partially bound by private property on Wollondilly Road and Wallaby Court to the west. In addition, the site boundary extends to the southeast forming the proposed access road.

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Bunyip North Quarry

Project Description

Hanson proposes to establish a granite quarry on land currently used for pastureland in Bunyip North. The stone reserves of the Project Site have been estimated by Hanson to comprise approximately 135 million tonnes of granite, which would resource production of crushed rock products over a period of 80-120 years, depending on demand. The Project Site covers approximately 165 hectares, and has frontages to Bunyip-Tonimbuk Road and Sanders Road. The indicative pit design has a footprint of about 134 hectares, and a maximum depth of about 140 metres below natural surface, which is undulating.

Development, operation and closure of the Project would involve:

- Removal of vegetation, topsoil and overburden to enable stone extraction;
- Construction of plant equipment and haul roads;
- Removal of granite through controlled blasting and mechanical extraction;
- Onsite processing of stone;
- Mixing of aggregates;
- Progressive rehabilitation of extracted areas;
- Transportation of stone and aggregates from site; and
- Final rehabilitation (post resource exhaustion).

Summary of Proposed Works and Activities

Development

On the basis that the project receives approval, a number of site preparation activities are required and must be completed before quarry activities can commence. These include the following:

- Relocation of the utilities and services;
- Sourcing and processing of material for construction of internal roads;
- Construction of the access road to the processing facility via Tonimbuk Road;
- Vegetation clearance for the first quarry stage and processing plant;
- Construction of the plant equipment and weighbridge;
- Preparation of stockpile areas;
- Implementation and construction of drainage channels, sediment and collection dams;
- Decommissioning of the current dwelling and water tanks;
- Commissioning of site offices; and
- Erection of perimeter security fencing.

Operation

The quarry phase is expected to last approximately 80 to 120 years depending on the future level of resource demand. The following key activities will occur progressively:

Topsoil and Overburden Removal and Storage

Topsoil is progressively removed on an "as needed" basis and stockpiled for later rehabilitation works. Overburden is then progressively removed and either used directly for rehabilitation purposes or stockpiled for future rehabilitation use and/or sold as a general fill or utilised in the production of lower quality processed road base materials.

Quarry Bench Development

Quarry benches will be developed using conventional ripping and excavation and drill and blast techniques. Bench heights and widths and vertical separation between benches are in accordance with accepted quarry practice and conform to statutory requirements. Proposed bench access haul roads will be of appropriate width and grade for safe passage of dump trucks and are to be well maintained.

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Bunyip North Quarry

Raw Materials Handling

Quarry rock is loaded from quarry benches using a hydraulic excavator or rubber tyred front end loader onto off road quarry haul trucks for haulage to the processing plant.

Processing Plant and Storage of Product

The processing plant is proposed to be located south-east of the pit area. The plant will accept raw product from the quarry and allow for the mixing of aggregate to make road base and wet-mix products. The processing plant is proposed to contain primary, secondary and tertiary processing legs, with stockpiling of material between stages.

Quarry Operational Throughput

The throughput of the Project is proposed to be 0.5 million tonnes per year for the first 5 years, which will increase to 2 million tonnes per year after five years to achieve optimum production.

Transport

Transportation of raw material and final product will occur throughout the operation of the quarry. The proposal would initially involve the cartage of approximately 2000 tonnes per day, which equates to approximately 80 truck movements per day. Five years into the operation, cartage will increase to 4000 tonnes per day which is approximately 160 truck movements per day.

At peak production approximately 6,944 tonnes per day would be carted. This is projected to generate 422 truck movements per day and total 530 truck movements per day at its peak. This presents a 'worst-case scenario' as it is based on every truck being a tandem (unlikely). The average load size is expected to be higher, reducing the expected number of vehicle movements.

Closure

The Project Site will be progressively rehabilitated throughout the project's life as material is extracted throughout the various stages of the quarry.

Following extraction of the granite resource, the land will be made safe and stable and rehabilitated in accordance with the rehabilitation plan that will be approved as part of the Work Plan.

The Rehabilitation Plan will be developed to address Section 79 of the *Mineral Resources (Sustainable Development) Act 1990* so that it is designed to:

- Respond to any special characteristics of the land and the surrounding environment;
- Stabilise the land;
- Address the potential for the long term degradation.
- The MRSD Act 1990 requires a bond to be provided to ensure that funds are available to appropriately rehabilitate the land.

Bunyip North Quarry

1.Bunyip North Quarry Site - Existing Onsite Conditions DRAFT

PROJECT UPDATE