

As described in the **Bunyip North Quarry Environment Effects Statement (EES) Community Consultation Plan**, Hanson is committed to issuing **Project Updates** via email and letter to those stakeholders registered to the Community Contact Database. The Project Updates can also be viewed on, and downloaded from, the Hanson website at <https://www.hanson.com.au/about-us/regulatory-information/bunyip-north-quarry-ees/>.

To date, Hanson has issued 14 Project Updates, providing information on the progress of the EES.

**Project Update #15** provides details on the key aspects of the proposed quarry plan to be presented in the EES. The quarry plan has been updated from that previously presented to provide additional detail with regard to staging and overburden management.

In **Project Update #11** (August 2018) Hanson outlined an extensive drilling program across the site, the primary objective being to better define the nature of geology, and inform the geotechnical assessment for the EES. The outcome of the updated geological understanding was a need to refine the proposed quarry plan to take into account the nature and extent of overburden to be managed, and site specific granite rock properties.

In addition, the quarry plan was refined to update the pit design, quarry layout and staging to meet the following objectives based on the engagement with community stakeholders:

- commence extraction from the centre of the site to allow for monitoring and potential refinement of extraction prior to works progressing closer to dwellings;
- maximise, as much as practicable, the distance between the final footprint extent and nearest dwellings;
- maximise the distance and vegetation screening for key viewing points; and
- respond to the current landscape, such as the site's ridgeline, in terms of overburden stockpile extent, shape and form.

The refined quarry plan, with additional detail on the proposed quarry layout is presented in the following pages.

## Quarry Aspects (Domains)

- Infrastructure areas: plant, access road, workshops and vehicle parking;
- Stockpiles: overburden and top soil; and
- Pit: single pit.



The following Figures show the proposed staged progression of the pit and overburden stockpile from start to the end of operations:

## Stage 1

Covers the construction phase, and commencement of operations to Year 8.

Quarrying production commences with a mobile plant that has a maximum capacity of 0.5Mt/year, with transfer to the fixed plant (2.0Mt/year) in year 6.

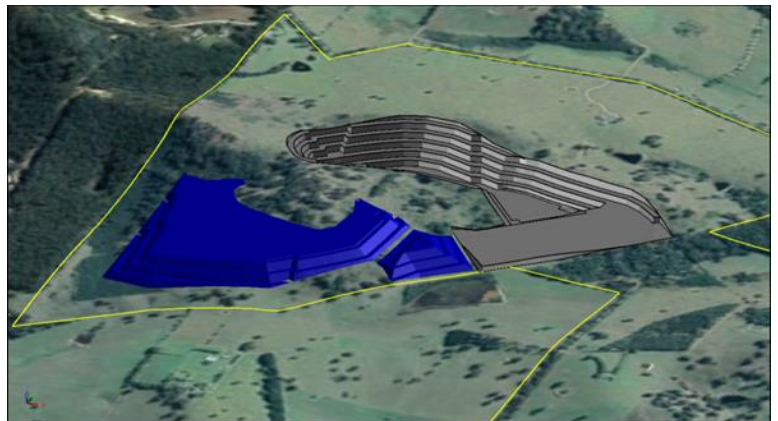


Figure 1

## Stage 2

Covers the period from Years 8 to 11 at an assumed production rate of 2.0Mt/year.

Overburden stripping, haulage and placement continue from Stage 1, 2, 3 and into the initial years of Stage 4.

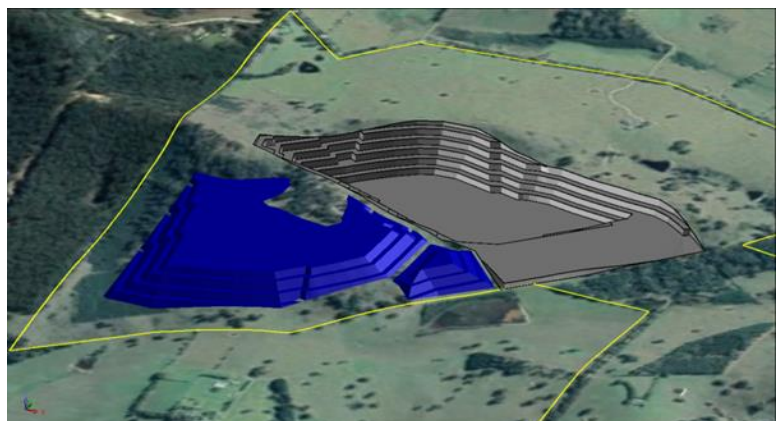


Figure 2

### Stage 3

Covers the period from Year 11 to Year 16.

Progressive rehabilitation of the lower overburden benches mean that by Stage 2 and 3 a vegetation cover will have been established providing screening.

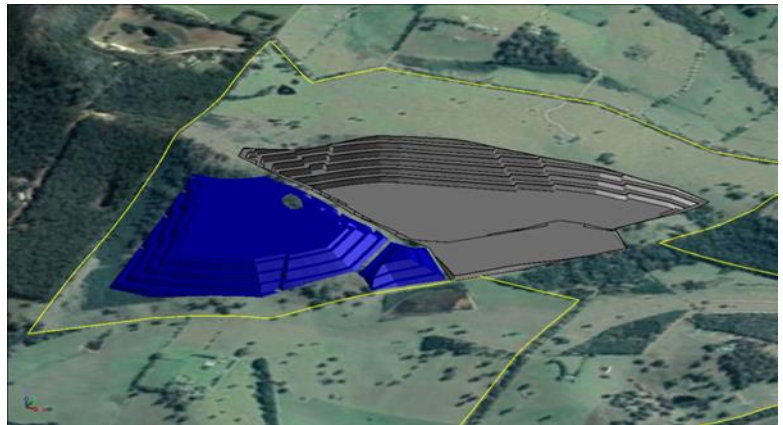


Figure 3

### Stage 4

Covers the period from Year 16 to end of operation (Year 69).

Overburden movement is completed by year 20 and rehabilitation of overburden stockpile can be completed at this time.

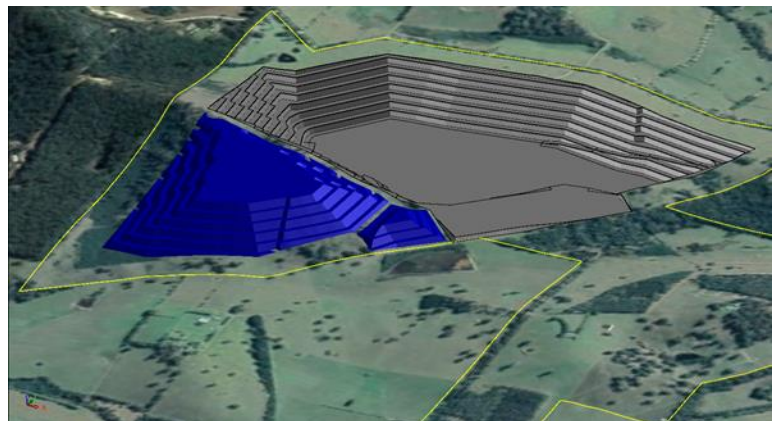


Figure 4

The table below provides a comparison of the quarry plan presented previously and that to be taken into the EES:

Aspect	EES Referral	Updated	Change
Pit Footprint (ha)	134	68.8	49% reduction
Overburden Dump Footprint (ha)	Not specified	28.4	-
Plant Area Footprint (ha)	10	3.9	60% reduction
Max Pit Depth (m) from surface	140	80 to 160	No change – minor increase in detail.
	<i>Base of pit limited to 0mRL</i>		
Resource (million tonnes) – total aggregates	70 to 100	129.5	20% increase
Overburden volume to be removed (million m <sup>3</sup> )	Not specified	9.8	-
Quarry life (years) <sup>[1]</sup>	80 to 120	69	42% decrease
Minimum Buffer (m)	100	100	No change

*Note: the resource increase from ~100Mt to 129.5Mt with a relatively smaller pit is due to the refined pit design and the updated density values used based on site testing.*

The next step is for all the key aspects of this quarry plan to be assessed against the various studies. In particular:

- **Visual** – assessing the change in visuals from pit, plant and overburden stockpile with the varying assumptions around the nature of progressive rehabilitation;
- **Air Quality and Noise** – assessing the impacts in terms of the modified location of key activities with regard to pit, overburden placement and plant operation; and
- **Groundwater** – assessing the dewatering requirements from the modified pit design and resultant change in the drawdown to aquifer levels.

Hanson will engage with the community regarding the outcomes of these studies, and the nature and extent of any proposed mitigation measures, prior to exhibiting the EES.

<sup>[1]</sup> Based on 0.5Mt/year (first 5 years) and 2.0Mt/year (year 6 onwards)

## Technical Reference Group (TRG) Meeting #6

On Monday 8 July 2019 the Bunyip North Quarry TRG convened for its sixth TRG meeting. The meeting included presentations from specialist consultants on the following draft reports:

- **Historic Heritage** presented by Heritage Insight Pty Ltd
- **Aboriginal Heritage** presented by Heritage Insight Pty Ltd
- **Blasting** presented by Terrock Pty Ltd
- **Economics** – presented by Deepend Services

It is worth noting that the **Blasting**, **Historic** and **Aboriginal Heritage** reports were updates to reports that have been presented previously to the TRG.

Following refinement of the reports in light of written comment from the TRG, information will be distributed via the project updates. Hanson welcomes feedback from the community on all of these reports, which will be included and referenced in the final EES submission.

In their final form, along with all the other technical specialist studies commissioned for the EES, the reports will be published as appendices to the exhibited EES.

Study Activities completed since the last Project Update include:

- Visual assessments from public and selected private residences have been completed.
- A post fire assessment of the dams at the Equestrian Centre was recently conducted to assess the impact of firefighting usage of these dams on the Dwarf Galaxias population.
- Assessment of background noise levels to inform the noise impact study
- Recently collected traffic data has been used to inform a draft traffic report. Following presentation to the TRG, the existing conditions aspect of the report will be made available to the public.

**For further information** about the Bunyip North Quarry project, or to contact the Project Manager:

Website: <https://www.hanson.com.au/about-us/regulatory-information/bunyip-north-quarry-ees/>

Email: [community.bunyipnorth@hanson.com.au](mailto:community.bunyipnorth@hanson.com.au)

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