

**Shenstone Park PSP  
Planning Panel**

**Expert Report**

**David Maltby  
5 November 2020**

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## **INTRODUCTION**

### **Shenstone Park PSP**

#### **Instructions**

- I.1 I have been instructed by Gadens to prepare an independent expert report for the Panel Hearing for the Shenstone Park PSP.

#### **Scope and sources of information**

- I.2 I have used a number of documents to assist me in the preparation of my answers to the questions set out in the letter of engagement. In undertaking the preparation of this report, I have considered the documents which I refer to in Schedule 1.

#### **Work by Assistants**

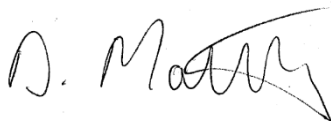
- I.3 No assistance was provided by any other parties in the preparation of this report.

#### **Code of Conduct**

- I.4 I have read and agree to comply with the Planning Panels Guidelines for Expert Witness.  
I.5 I understand that as an expert witness, I have an overriding duty to assist the Panel impartially on matters relevant to my area of expertise.

#### **Declaration**

- I.6 I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.



Signature:

Date: 5 November 2020

David Maltby

18 Central Ave Blairgowrie Victoria

# 1 BACKGROUND

## ***Qualifications and experience***

- 1.1. My experience with quarries has been obtained in my roles with quarry operators and as a consultant to the quarry sector. Much of my quarry consulting experience has been gained with quarry operators who operate landfills on their sites. My involvement with quarries commenced in 1992 and has continued to the present. This involvement provides me with an understanding of all aspects of quarries including establishment, rehabilitation, extraction and crushing and management of environmental impacts. My expertise relates to quarry resource evaluation, production and marketing of quarry products and environmental impacts of quarrying operations. I do not provide a full-service quarry consultancy that would prepare for example, quarry work authority applications.
- 1.2. I obtained a Bachelor of Engineering (Geological Engineering) from RMIT in 1987. During the last three years of my course, I worked part time for Australian Hydrogeologists International (AHI) (a hydrogeological consulting firm). AHI was taken over by Dames and Moore (an international engineering and environmental consulting firm) in 1987. I continued employment with Dames and Moore working on contaminated land projects such as the remediation of the BP terminal Port Melbourne (now Beacon Cove) and waste projects such as site assessment and design of landfills. In 1989, I was transferred to the Philadelphia office of Dames and Moore where I assisted in the provision of services in the areas of contaminated site assessment, landfill remediation, and due diligence assessments. In 1990, I transferred to the Seattle office of Dames and Moore and continued to work on contaminated site and landfill remediation projects. In 1991, I returned to the Melbourne office of Dames and Moore.
- 1.3. In 1991, I joined CSR Readymix as the Environment Coordinator for Victoria and Tasmania. As Environment Coordinator, I was responsible for the assessment and reporting on environmental issues such as surface water, noise, dust and odour. CSR Readymix (now Holcim), operated quarries, concrete batching plants, asphalt plants, and precast concrete plants. CSR operated hard rock quarries at Werribee, Ferntree Gully, Oakland Junction and sand mines in the SE Metro area. CSR also operated a range of quarries in regional Victoria. After the acquisition of PBM in 1993 I was also responsible for the environmental management of the PBM landfills.
- 1.4. In 1999, I established the Melbourne office of HLA Envirosciences (HLA) with two other associates<sup>1</sup>. I also managed the HLA Melbourne office for 2 years to May 2004.
- 1.5. In 2004, I moved to the Mornington Peninsula to take up a position as waste manager for the Mornington Peninsula Shire. In this role, I was responsible for management of waste operations including the Rye landfill and aftercare of landfills in Hastings, Crib Point,

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<sup>1</sup> HLA Envirosciences subsequently became ENSR trading as AECOM.

Tyabb and Mt Eliza. Later in 2004, I took over as Executive Officer for the Mornington Peninsula Regional Waste Management Group<sup>2</sup>, managing both the group and waste operations at the Shire.

- 1.6. In April 2005, I was appointed as Executive Officer, South Eastern Regional Waste Management Group (SERWMG). At the same time, I continued as Executive Officer of the Mornington Peninsula Regional Waste Management Group.
- 1.7. From October 2006, I have been an environmental consultant. In this capacity I have performed a variety of tasks in the natural resource field including:
  - Principal Environmental Adviser to SBI Cranbourne Quarries from 2006 to present.
  - Environmental Consultant to Maddingley Brown Coal from 2013 to present.
  - Advice on sand mine feasibility in SE Melbourne including resource assessment and environmental restrictions.
  - Consultant to quarry operators for advice as requested.

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<sup>2</sup> Regional Waste Management Groups are responsible for planning the management of municipal solid waste in Victoria. In order to coordinate and direct the waste management activities of its member councils, each Regional Waste Management Group produces a regional plan. <http://www.sustainability.vic.gov.au/www/html/1999-about-regional-waste-management-groups.asp>

## 2 INSTRUCTIONS

2.1 I was instructed to instructed to review the materials provided and prepare an expert witness statement that considers:

(a) whether there is any strategic justification for the dimensions of the Quarry Expansion Area being approximately 74m wider than the Bund and Access Area being transferred to Barro;

(b) the strategic justification and operational benefits (if any) of providing road and conveyor access from the Woody Hill operations to the Phillips Quarry and the location of the bund within the Quarry Expansion Area;

(c) the ability or otherwise to undertake extractive activities in any part of the Quarry Expansion Area whilst still providing sufficient road and conveyor access for the operation of the Phillips Quarry and maintaining the benefits of the bund; and

(d) any comments on any other matters concerning the Quarry Expansion Area that you consider to be relevant, and within your area of expertise.

### 3 EXPANSION OF WOODY HILL QUARRY

- 3.1 The Woody Hill Quarry was initially comprised of a sedimentary rock quarry operating under WA492. This sedimentary rock can be made into products such as road sub base, it is not suitable for concrete aggregate or asphalt road paving. Barro also import significant quantities of hard rock and some concrete to the site for crushing into higher value products such as concrete aggregate.
- 3.2 Barro are planning to expand operations at Woody Hill by expanding the existing soft rock extraction operations at Woody Hill into the basalt rock mainly to the north with a smaller area to the east of WA492. This expansion is covered under WA006437.
- 3.3 Barro plan to develop the Phillips Land as a quarry as a joint operation with the Woody Hill Quarry. The Phillips Land or Quarry will operate under WA6852. The Woody Hill Quarry including the expansion area is not connected to the Phillips Quarry. Operation of the two separate site sites as one site relies on access being provided by Donnybrook Joint Venture (DBJV).
- 3.4 An agreement between Barro and DBJV, (as set out in the letter from Ponte Lawyers dated 2 October 2020), provides land for access between the two sites, this access also provides for provision of a 7 to 8 metre high earthen bund along the northern boundary of the Phillips Quarry and eastern boundary of the Woody Hill Quarry as well as the triangular portion of land providing road and conveyor access between the two sites. This bund will also be planted with screening vegetation and as such should provide a screening height in excess of 10 meters.
- 3.5 This agreement provides for the transfer of the road and conveyor access land and the land occupied by the earthen bunds from DBJV to Barro. In addition, as part of the agreement Barro agrees to quarry the northern part of the Phillips Quarry as soon as reasonably practicable so as not constrain residential development proposed in the 500 metre buffer from the Phillips Quarry land.
- 3.6 It would be reasonable to assume that the best interests of both Barro and DBJV are served by the agreement between the parties. The agreement provides Barro to work both extractive areas as one. This eliminates the need to develop a separate road access for quarry trucks to the Phillips Quarry and increases the efficiencies of the crushing and screening operations. The efficiencies of quarry operations are proportional to the volume of product processed with a greater throughput through a crushing and screening plant allowing for a lower cost per tonne of quarry product. It also allows for blending of stone and recycled material from both sites to deliver quarry products to market that exactly meet customer specifications.
- 3.7 A key outcome of the agreement is the requirement to excise land for quarry purposes from 960 Donnybrook Rd as shown in attachment 6(f) of the Ponte Letter. The proposed bund requires the excision of a strip of land 36 metres wide western edge of the 960

Donnybrook Rd land immediately to the east of WA492 and WA006437. It also allows for the excision of a triangular portion of land as shown on attachment 6(f) from the south west corner of 960 Donnybrook Rd. With the exception of the triangular portion of land the rest of the proposed earthen bund on the north of the Phillips Quarry is located on the Phillips Quarry land.

- 3.8 The VPA October 2020 version of the Shenstone Park Precinct Structure Plan - Plan 3 shows future extractive industry extending east of the Woody Hill Quarry with a right angled triangular section shown on the southern section of the Woody Hill Quarry pointing to the east along the southern boundary of 960 Donnybrook Rd land. The top north west corner of the extension shown has the corner rounded off. The width of the quarry extension area is difficult to determine with precision due to the thickness of the line used to delineate the future extractive area. I measure the width of the straight section of the extension as 80 metres to the inside of the line and 90 metres including the width of the boundary line.
- 3.9 There are significant differences between area and location of the land to be transferred to Barro from DBJV as set out in their agreement to the Plan 3 potential quarry extension land, these differences include:
- Agreement land requires a 36 metre wide strip of land to be added to the eastern boundary of the Woody Hill Quarry, the PSP Plan 3 land width is between 80 to 90 metres in width.
  - The quarry expansion area triangular section of land on the southern section extends approximately 250 metres along the southern boundary of the 960 Donnybrook Rd land on Plan 3 of the PSP, whereas the agreement requires the transfer of land extending 410.5 metres along the southern boundary. The quarry extension as shown on Plan 3 would not actually provide for truck and conveyor access from the Woody Hill Quarry to the Phillips Quarry land as it appears to terminate near the north-western corner of the Phillips Land boundary. I understand that the truncated triangle in the exhibited PSP was in place to protect the Conservation Area 28. The shape of this area has been modified to allow for road access between the two quarry sites.
- 3.10 The differences between the shape and area of the Agreement Land and the Plan 3 Future Extractive Industry Land extending into the 960 Donnybrook Rd land is the reason for my engagement to produce this report. The shape and area of the land proposed to be transferred from DBJV to Barro has been derived to enable Barro to jointly operate the Woody Hill and Phillips Quarries and to allow for land to be developed for residential purposes without adverse impacts from current and future quarry operations.



## 4 IMPLICATIONS OF QUARRY EXPANSION

### ***Width of Quarry Expansion Area***

- 4.1 The first question this report considers is *“whether there is any strategic justification for the dimensions of the Quarry Expansion Area being approximately 74m wider than the Bund and Access Area being transferred to Barro.”* As discussed in paragraph 3.8, the bund and access area transfer width is 36 metres while the Quarry Expansion Area is between 80 and 90 metres or approximately 44 to 54 metres wider.
- 4.2 The purpose of the Bund and Access Area transfer is to allow for the expansion of the Woody Hill Quarry activities. The agreement between Barro and DBJV is to place a bund on the 36 metre wide strip of land immediately to the east of the existing Woody Hill Quarry title boundary. If there was an additional 44 to 54 metres of land included to the east beyond the edge of the earthen bund this land would not be owned by Barro nor would it have a quarry work authority.
- 4.3 If the extra 44 to 54 metres of land was to be developed for quarry purposes it would require:
- Subdivision and transfer of land from DBJV to a quarry operator or an agreement to be prepared to allow for the extraction of stone resources from that land.
  - Preparation of planning permit lodgement of permit applications.
  - Preparation of quarry work authority applications and lodgement of these applications.
  - Relocation of the earthen bund some 44 to 54 metres to the east of the current proposed location.
- 4.4 The narrowness of the land makes development of this land for quarrying purposes as anything but an extension to the Woody Hill Quarry impossible. The development of this land as a quarry extension would be contrary to the existing agreement that has been negotiated between DBJV and Barro. The cost and time required to obtain the permits to extend the Woody Hill Quarry to the east and to negotiate a new agreement between the parties would not be justified.
- 4.5 Therefore, in my opinion there is no strategic justification to moving the quarry expansion area further to the east that that is required to establish the earthen bund to the east of the Woody Hill Quarry that is 36 meters.

### ***Road and Conveyor Access and Bund Placement***

- 4.6 The second question this report considers is *“the strategic justification and operational benefits (if any) of providing road and conveyor access from the Woody Hill operations to the Phillips Quarry and the location of the bund within the Quarry Expansion Area”.*

- 4.7 The strategic and operational benefits in providing road and conveyor access between Woody Hill Quarry and the Phillips Quarry include lower establishment and operational cost and potentially better stone resource utilisation. Placing the bund outside the Woody Hilly Quarry allows for full utilisation of potential reserves within the Woody Hill site that would otherwise be sterilised if the bund was located within the Woody Hill site.
- 4.8 The Phillips Land does not have road access at a standard necessary to allow for movement of road vehicles carting quarry products from the site. Whereas the Woody Hill site has existing access to Donnybrook Rd and the site entrance is 2.5 km from the Hume Freeway. The cost to provide road access to Phillips Land via Summerhill Rd would be substantial.
- 4.9 The Phillips Quarry will provide a source of high quality aggregates for a variety of applications including concrete, asphalt and drainage products. The Woody Hill Quarry as a mixed mudstone and basalt quarry has a lower quality of stone reserves. The ability to operate the quarries as one operation provides the opportunity to produce a broader range of blended products for the market. Quarry operators seek to produce products that exactly meet the required specifications, whereas producing a product that exceeds the required specification is in effect a waste of a resource. Running the two operation as one combined operation enables Barro to produce products that can service the quarry market with minimal wastage.
- 4.10 The establishment costs for the Phillips Quarry will be substantially lower if it can be opened utilising the crushing and screening plant at Woody Hill Quarry, ultimately the Phillips Quarry will have its own crushing and screening plant. The production costs at quarries are proportional to the throughput at a quarry. The cost per tonne of product will be lower if the Phillips Quarry can be operated jointly with the Woody Hill Quarry. These lower establishment and operating cost will lead to lower cost of production of quarry products.
- 4.11 The lower cost of production of combined quarry operations will enable greater utilisation of stone resources at the combined sites. Quarry stone extraction operations will allow for extraction of stone reserves that may not be financially viable for extraction with higher quarry production costs. Many quarries cease operation when there are still remaining reserves when the operating costs exceed the sales revenue.
- 4.12 Operations and management of the site will lead to savings with site management and operations for example only one weighbridge and manager will be required.

### ***Use of Expansion Zone for Stone Extraction***

- 4.13 The third question this report considers is *“the ability or otherwise to undertake extractive activities in any part of the Quarry Expansion Area whilst still providing sufficient road and conveyor access for the operation of the Phillips Quarry and maintaining the benefits of the bund.”*

- 4.14 The triangular southern section of the expansion zone as shown on Plan 3 is of insufficient width to provide for road and conveyor access between the two quarry sites. Assuming that the eastern of the triangular southern portion of the expansion section was extended to the allow for road and conveyor access protected by a bund there would be limited potential for extraction of the stone within the triangular area behind the bund. The area of this triangular section excluding the bund is approximately 3 hectares.
- 4.15 The fuel consumption and load carrying capacity of quarry trucks would be impacted if they have to traverse steep gradients between the extraction area and the crusher. This stone extraction may reduce the utility of the access corridor between the two sites if the natural surface level was unchanged at either end of the road access corridor. The plans shown in the Ponte letter indicate that the access road is at grade which would make excavation of stone in the triangular portion less desirable. The irregular shape of the extraction area would lead to difficulties with blasting and quarry face workings.
- 4.16 The extraction of the stone in the triangular section if it was to occur would require revisions to the planning permit and quarry work authority and would not be economical given the irregular shape of area combined with the limited amount of stone compared to the cost of gaining approvals and the cost of rehabilitation.
- 4.17 The straight section of the expansion area north of the triangular section along the Woody Hill eastern boundary could not be used for stone extraction without substantial changes to the agreement between DBJV and Barro. The expansion area width is approximately 80 to 90 metres assuming a similar bund was required as is proposed under the agreement this bund would need to be relocated 44 to 54 metres to the east to access the stone reserves that would largely be under the quarry bund. This agreement requires placement of a bund immediately to the east of the Woody Hill Quarry on land currently owned by DBJV. The area of land that could be accessed if the bund was relocated and DBJV made it available for quarrying and appropriate town planning permits and extractive industry work authority were obtained would be approximately 49 metres by 900 metres or approximately 4 hectares, this is approximately 0.2% of the area of land in the Phillips Quarry.
- 4.18 The disbenefit in setting aside the agreement between Barro and DBJV and the requirement to seek the permits to quarry out such as small section of land would not be offset by the benefits obtained from quarrying the northern area of the quarry expansion area.
- 4.19 The quarry expansion area does not consider the agreement between Barro and DBJV. This agreement has taken significant time and resources to develop. Permit applications for the Phillips Quarry assume that the bunds and land transfers in the agreement are in place.

## **5 SUMMARY**

- 5.1 It is my opinion that the quarry expansion area as shown on the Shenstone Park Precinct Structure Plan - Plan 3 should be modified to be consistent with the area as shown on Annexure 6(f) of the Ponte letter. This will enable road and conveyor access between the Woody Hill and Phillips Quarries, which is not provided by the current quarry expansion area, and allow for screening bunds to be located to protect sensitive uses from quarrying impacts.
- 5.2 The agreement between Barro and DBJV has been negotiated to serve the interests of both parties. The quarry expansion area is inconsistent with the agreement in particular it does not provide for access between the two quarry sites and extends further to the east into 960 Donnybrook Rd land than required to establish bunds on the 960 Donnybrook Rd land.

## Schedule 1

Background Information		Prepared by	Date
A.	Planning Property Reports and Scheme Extracts		15 July 2020
B.	Draft Shenstone Park Precinct Structure Plan	VPA and City of Whittlesea	December 2017
C.	Joint Ministerial Statement on Extractive Resources	Tim Pallas MP and Richard Wynne MP	July 2018
D.	Letter to VPA from Barro Group Pty Ltd regarding quarrying activities over 960 Donnybrook Road	Contour Town Planners	19 June 2020
E.	Guide to Expert Evidence	Planning Panels Victoria	April 2019
Relevant Exhibited Documents		Prepared By	Date
1.	Shenstone Park Precinct Structure Plan	VPA	September 2019
2.	Background Report	VPA	September 2019
3.	Quarry Impact Assessment	GHD	December 2017
4.	Quarry Impact Assessment – Addendum	GHD	September 2019
Revised PSP Documents			
5.	Updated Draft Shenstone Park Precinct Structure Plan	VPA	October 2020
6.	Updated Draft Explanatory Report	VPA	October 2020
7.	Updated Planning Scheme Ordinance and Maps	VPA	October 2020
Relevant Documents Tabled at the Panel			
8.	Letter from Ponte Lawyers (on behalf of Barro Group) which includes details of current approvals and expansion applications for the Woody Hill and Phillips Quarries	Ponte Lawyers	2 October 2020
9.	Letter from Ponte Lawyers (on behalf of Barro Group) which includes aerial photography of the quarries and annotations showing the approved extraction boundaries and endorsed extraction boundaries for the Woody Hill Quarry and Phillips Quarries	Ponte Lawyers	15 October 2020
10.	Quarry Statement prepared by the VPA in consultation with DJPR, Barro Group, Whittlesea City Council, Yarra Valley Water and the EPA	VPA	16 October 2020

11.	Letter from Ponte Lawyers providing additional material concerning the Woody Hill and Phillips Quarries (with attachments)	Ponte Lawyers	26 October 2020
12.	DJV Preferred FUSP	Niche Studio	October 2020
<b>Relevant Submissions</b>		<b>Prepared By</b>	<b>Date</b>
13.	Submission 17 (DELWP)	DELWP	15 November 2019
14.	Submission 23 (Donnybrook Joint Venture Pty Ltd)	Donnybrook Joint Venture Pty Ltd	15 November 2019
15.	Submission 24 (Barro Group Pty Ltd)	Contour Town Planners	15 November 2019
16.	Submission 27 (DJPR)	DJPR	November 2019
17.	Submission 32 (City of Whittlesea)	City of Whittlesea	