

**Hanson Lysterfield Quarry  
Community Reference Group**

**MINUTES OF MEETING**

<b>Meeting No.:</b>	<b>19</b>	<b>Status of Minutes:</b>	<b>APPROVED</b>
<b>Date:</b>	4 September 2019	<b>Time:</b>	6:00pm
<b>Location:</b>	The Anderson Room, Waverley Golf Club, 82 Bergins Road, Rowville		
<b>Minutes Confirmed:</b>	By consensus		

<b>Chairman:</b>	Brian Oates (BO)
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**Present:**

<b>Members:</b>	Wendy Belli (WB) Alan Birchall (AB) Virginia Bright (VB) Clayton Collins (CC) Trevor Harley (TH) Alice McKenzie (AM) Sally Orr (SO) Monica Varcoe (MV)
<b>Presenters/ Observers:</b>	Daniel Salmon, ERR (DS) Geoff Gilbert, ERR (GG) Paul Dickie, KCC (PD) Ken Brown, Hanson (KB) Rob Francis, Hanson (RF) Andrew Ritchie, Hanson (AR) Garrett Hall, Golder, Hanson consultant (GH) Lyndel Hunter, LHSC, Hanson consultant (LH)

<b>Item</b>	<b>Issue</b>
<b>1</b>	<b>Welcome</b> Apologies received from: Darren Heathcote Shane Logan Gina Mastromano Absent: Trudi Dicker John Farrar Paul Lees Emma Pearce Susan Pearce
<b>2</b>	<b>Minutes of previous meeting</b> Minutes of Meeting 18 were carried by consensus.

### Action Tracker

BO reported that he had met with VicRoads at 7:30am on Friday 23 August 2019 at Wellington Village Shopping Centre to observe the junction of Wellington Road, Braeburn Parade and Silkwood Way, Rowville. BW also attended meeting.

VicRoads advised that it cost \$200,000 to install warning lights both sides of intersection. BO suggested that only one warning light would be required.

BO reported that, as they were watching the intersection, a truck approached and entered the intersection on the green light. However, by the time the truck had completed its exit from the intersection, the traffic light had turned red.

BO advised that VicRoads stated that there is potential for the red light to be extended as an interim solution, however no promises. VicRoads also suggested encouraging the support of local MPs as this would offer greater opportunities for funding.

WB stated that every week signs at the junction are “flattened” and generally repaired within 24 hours.

Following discussion, the following actions were agreed.

### Actions:

- BO to contact Mr Dev Vagel, VicRoads Team Leader, Transport Vehicular Movement to discuss road signs damage and repairs.
- Letter to be sent to Minister for Roads, the Hon Jaala Pulford with a complete history of CRG campaign and status.

**Issue:** *All members who have not attended the past few meetings to be contacted to better clarify their status as members of the CRG.*

LH had advised that, in light of potential to stream meetings and for three members to participate, contact with members had been upheld until advice can be provided.

**Issue:** *Potential for future CRG meetings to be livestreamed to be investigated with Hanson.*

LH advised that this was difficult for Hanson as they do not have an IT department. RF has been assigned to investigate options available to achieve livestreaming of meetings.

**Issue:** *PD to advise LH of KCC advertising and LH to provide CRG members with information via email.*

Both actions were undertaken on 29 July 2019.

**Issue:** *Dust at property of W Belli to be investigated.*

BW and WB to arrange time for inspection.

**Issue:** *Hanson to review dust monitoring reports to assess source of dust.*

Source is dependent upon wind direction. In some cases, the source is indicated as the residential area. Dust and weather monitoring are now reported in Operational Report (Item 7a) and results discussed at each meeting.

**Issue:** *AR to advise route and timetable of water trucks cleaning Wellington Road*

BW advised routes and times as follows:



WB advised that street cleaner is not effective on Raeburn Parade – the inside lane is full of dirt and stones. Traffic islands had been swept recently. PD advised that median strips and traffic islands are the responsibility of VicRoads – WB noted that it must not include the gutters.

**Issue:** *ERR representative, Daniel Salmon, to be invited to present at Meeting #19 on 04.09.19*  
Attending this evening and presenting in Item 5.

**Issue:** *Topics to be reported / written about in CRG Newsletter Issue #3*  
To be discussed in Item 6.

**Issue:** *Costs and Hanson's support of wider distribution of CRG Newsletter to be investigated*  
LH reported that Hanson had approved funding of wider distribution of newsletter. LH to investigate costs and provide report to Hanson for approval.

**Issue:** *Hanson to provide further information regarding final shape of the land.*  
Will be presented in Item 6.

### 3 **Presentation: Quarry rehabilitation and biodiversity at Hanson**

*Ken Brown, Environmental Compliance Manager, Hanson*

*(Refer to APPENDIX A)*

Work is guided by Hanson Sustainability Environmental Policy which includes commitments to:

- Reducing waste
- Reducing CO2 footprint of cement and concrete
- Developing sustainable concrete solutions
- Reducing unnecessary water usage & contamination
- Maximising water and soil quality
- Planning around flora and fauna

Biodiversity is one of the six pillars of the Hanson HeidelbergCement Sustainability Ambitions 2020 policy

- Internal ecologists providing best-practice biodiversity advice for quarry rehabilitation and active site management

- Sites identified with High Biodiversity Value and roll-out of Biodiversity Management Plans underway
- Biodiversity included in after-use plans when possible and this metric is to be reported annually from 2019
- Biodiversity initiatives implemented by Hanson HeidelbergCement includes partnerships with NGO's (Birdlife International) and The Quarry Life Award

#### Quarry Rehabilitation

- In Australia the default post-extractive land use is indigenous vegetation and/ or farmland
- Current community desire is to turn sites into parklands
- Consequently, quarries are now required to undertake progressive quarry rehabilitation
- As a company we also aim to provide habitats for species while sites are operational and into the future
- Utilising HeidelbergCement sites worldwide and in Australia as case studies.
- Example, Gaskell Sand Quarry lies within one of these isolated pockets, covering ~571 Ha within the Swan Coastal Plain, surrounded by Banksia woodland, Bush Forever Reserves, as well as the Gnarangra Pine Plantation. A major priority of Hanson is to restore the post-sand extracted sites with a plant community closely resembling the pre-sand extracted Banksia woodland plant community. As part of the restoration process, Hanson collects seed from the surrounding local plant communities before being cleared and the seed is then either propagated into seedlings and/or used for broadcast/direct seeding back onto the rehabilitated areas. (Further information can be sourced from:  
<https://www.quarrylifeaward.com.au/quarries/australia/gaskell>)
- Example, Wollert Quarry  
Again, priority is to rehabilitate grasslands and woodlands of the Victorian volcanic plains utilising similar process to Gaskell Sand Quarry.

#### Seed and Plant Sources

- Topsoil seedbank retained and used, however there can be little indigenous vegetation; weed seeds; long time-frames
- Direct Seeding, however sometimes seed is not available; inconsistent results
- Tube-stock planting is labour intensive; guarding; expensive
- Indigenous nurseries utilised include:
  - Western Plains Flora for sites north and west of Melbourne
  - South-east-Cardinia Environment Centre Nursery, and now also Operation Revegetation

KB presented ecological vegetation class (EVC) for Lysterfield Quarry and a list of indigenous plants relevant to the area.

The three threatened species of south-east Melbourne are the Dwarf Galaxia, Southern Brown Bandicoot and the Growling Grass Frog.

#### Swift Parrot

KB outlined a project he is working on within Hanson to provide a flight path for the Swift Parrot.

- It is listed by the Australian government as Critically Endangered
- Approximately 2000 individuals in the population
- Notable as one of only a few parrots that migrate across open ocean
- It migrates from summer breeding grounds in Tasmania to winter feeding areas in South-Eastern mainland Australia
- Many other migratory birds use Hanson sites in Australia such as ducks, waders, pelicans, bee-eaters

	<p>The winter feeding grounds for the Swift Parrot are winter-flowering eucalypts in Victoria including:</p> <ul style="list-style-type: none"> <li>· Ironbark (<i>Eucalyptus sideroxylon</i>)</li> <li>· Yellow Gum (<i>Eucalypts leucoxylon</i>)</li> <li>· Yellow Box (<i>Eucalyptus melliodora</i>)</li> </ul> <p>Other species in other areas towards NSW and South Australia are available if there are drought conditions in Victoria</p> <p>Hanson currently plant a greater percentage of these preferred species in our Victorian sites</p> <p>Hanson contribute to Swift Parrot conservation by:</p> <ul style="list-style-type: none"> <li>· Continuing to plant appropriate feeding and breeding trees</li> <li>· Contributing to the monitoring of the species migration across more than 15 sites in 4 states</li> <li>· Installing nest boxes at Hobart Quarry</li> <li>· Irrigating prime nectar trees when Victoria is in drought e.g. Yellow Gums and Grey Box at Axedale Quarry</li> <li>· Including the Swift Parrot in Biodiversity Management Plan actions</li> </ul> <p>After the presentation, the following was queried / noted:</p> <ul style="list-style-type: none"> <li>· Has the Swift Parrot been observed at the quarry? Yes - KB advised that bird watching registers were utilised to track birds. AB advised that he had seen a similar bird.</li> <li>· MV queried consideration of the view from Lysterfield Park – provided photo as demonstration</li> <li>· MV suggested that Hanson should understand the impact from the community's point of view.</li> <li>· MV requested that Hanson organise a walk in the Lysterfield Park with community members and relevant Hanson staff to better understand the horizontal view.</li> </ul> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>· Hanson to organise walk in the Lysterfield Park to better understand aesthetic of quarry from the park.</li> </ul>
4	<p><b>Presentation: Project Update including rehabilitation plan</b></p> <p><b>Project Update:</b></p> <p><i>Rob Francis, Hanson</i></p> <p><i>(Refer APPENDIX B.1)</i></p> <ul style="list-style-type: none"> <li>· RF advised that the Public Acquisition Overlay is still progressing through DELWP.</li> <li>· Specialist studies underway include: <ul style="list-style-type: none"> <li>– Air quality</li> <li>– Geotechnical</li> <li>– Flora</li> <li>– Fauna</li> <li>– Noise</li> <li>– Vibration</li> <li>– Surface Water</li> <li>– Groundwater – drilling study currently in progress.</li> </ul> </li> <li>· RF provided images of groundwater drilling being undertaken.</li> <li>· The overburden earthworks application is with DELWP for referrals and KCC for assessment</li> <li>· As at today, five objections had been received by KCC regarding the planning permit application, including DELWP, as a statutory agency has sought further information from Hanson regarding vegetation.</li> <li>· RF provided a table of the objections, outlining basis for objection, relevance to earthworks and Hanson's response to the objection.</li> </ul>

**Rehabilitation Plan:**

*Garrett Hall, Golder*

(Refer **APPENDIX B.2**)

- GH provided image of existing rehabilitation plan for Work Authority 385 which includes:
  - Quarry pit lake
  - Residential
  - Rural residential lots
  - Commercial parkland
  - Passive parkland
- PD stated that KCC not terrified about the inclusion of a lake, however the experience with Ferntree Gully Lake “has burned” them. He advised that Council would be interested in discussions.
- GH advised that in the revision of the rehabilitation plan, it is important to not get too detailed in updated plan. Example, current plan includes a 25 metre wide ‘Roller Blade Track’ – not required today.
- GH outlined the principles for a rehabilitation plan as defined by the State Government and Hanson’s requirements.
- GH outlined two concepts, both of which are dependent upon the outcome of a drilling study currently being undertaken. Results of this should be known in a few weeks and will be presented at next CRG meeting.
- Deep quarry option would be required if the depth of the quarry makes backfilling commercially or technically unfeasible
- Shallow quarry option would be required with the depth of the quarry is rehabilitated above the long-term groundwater elevation.

An open discussion followed whereby CRG members were requested to respond to four questions:

1. *Do the concepts align with the principles we wish to see?*

This question resulted in a discussion regarding equine facilities. Some CRG members believe the lack of specific mention of equine facilities will impact the community. Hillview Equestrian facility is seen as the last available land for agistment in the south each metro area. Pakenham has closed. Rowville – Lysterfield has a large equine community and they are becoming nervous that the only facility available will be taken away. What will happen to the pony clubs, events and RDA?

VB stated that as long as the quarry is operating, there will be horse agistment. It would be better if the agistors knew there was a future for their horses and their event participation. Should be modelled on Shepparton Equestrian Centre.

SO stated that the facility could be utilised for PTSD, especially with first responders (police).

TH queried why housing was specifically identified.

Following discussion, it was agreed that Hanson needs to change the ‘words’ within the plan to ensure the future is not ‘locked in to’ housing or other residential development and the equine facilities should be clearly identified.

2. *Do the concepts provide the desired flexibility in potential land use outcomes?*

Yes. However TH commented that there was no flexibility re housing and PD recommended that Hanson provide more specificity for equestrian ensuring more certainty for community.

3. *Is the shape and general layout of the final landform consistent with people’s expectations?*

GH reiterated that the requirement for a rehabilitation plan was to provide a landform.

PD recommended that the southern area of development should be less residential development intensive to reflect the current surroundings. PD also advised that the state government were reviewing the growth boundary.

	<p>Following discussion it was agreed that this question would best be answered following the receipt of the drilling study and Hanson's assessment of the feasibility of backfilling.</p> <p>4. <i>Are there details missing that people would like considered?</i> GG recommended that CRG members review the presentation prior to discussion at the next meeting.</p> <p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>Results of drilling study to be presented at next CRG meeting.</li> <li>Hanson to change the 'words' within the plan to ensure the future is not 'locked in to' housing or other residential development and the equine facilities should be clearly identified</li> <li>CRG members to review the presentation prior to discussion at next meeting.</li> </ul>
5	<p><b>Presentation: Community engagement – roles, responsibilities and expectations</b> <i>Daniel Salmon, Senior Advisor, Stakeholder Engagement, ERR</i> (refer to <b>APPENDIX C</b>)</p> <ul style="list-style-type: none"> <li>DS advised that engagement is important to any community that can be impacted by quarry operations and to ensure the Social Licence to Operate (SLO) is maintained.</li> <li>An SLO refers to acceptance (and sometimes even support) of an operator within a community. It is not automatic, and it needs trust to be maintained</li> <li>Can be achieved in any number of ways –but always includes effective community engagement</li> <li>Community engagement legislative requirements for quarries are defined in: <ul style="list-style-type: none"> <li>the <i>Mineral Resources (Sustainable Development) Act 1990</i> under: <ul style="list-style-type: none"> <li>Section 77K –Duty to consult by sharing information with the community and providing a reasonable opportunity for community to express their views</li> <li>Section 77G – requiring the development of a Community Engagement Plan</li> </ul> </li> <li>The <i>Mineral Resources (Sustainable Development) (Extractive Industries) Regulations 2013</i> <ul style="list-style-type: none"> <li>Schedule 1, Part 1, 6 –A community engagement plan that: <ul style="list-style-type: none"> <li>Identifies any community likely to be affected</li> <li>Includes proposals to: <ul style="list-style-type: none"> <li>identify community attitudes and expectations</li> <li>provide information to the community</li> <li>receive feedback from the community</li> <li>analyse community feedback and consider community concerns and expectations</li> <li>Includes a proposal to register, document and respond to complaints and other feedback</li> </ul> </li> </ul> </li> </ul> </li> <li>Good community engagement can take any number of forms: <ul style="list-style-type: none"> <li>Face to face conversations</li> <li>Community meetings or drop-in sessions</li> <li>Letter drops</li> <li>Local publications and advertising</li> <li>Email newsletters</li> <li>Websites and social media</li> <li>ERCs or CRGs</li> <li>Prompt and effective response to issues</li> </ul> </li> <li>The Act is not prescriptive –it's up to the operator to identify the best way of engaging with their community</li> <li>Community Engagement Plans (CEPs) are submitted as part of a Work Plan as required by the Act.</li> </ul> </li></ul>



	<ul style="list-style-type: none"> <li>CEPs must identify community members and groups who may be impacted, and issues that are of concern to community and methods of minimising impact (this can be captured in a Risk Management Plan)</li> <li>ERR has developed guidelines to assist operators to develop their plans and employ best practice community engagement</li> <li>ERR promotes the use of the International Association for Public Participation (IAP2) Public Participation Spectrum which promotes best practice community engagement and assists in defining the role of stakeholders and the most appropriate level of engagement.</li> <li>Extractive regulations expire on 27 January 2020 and Earth Resources Policy and Legislation is currently development new regulations.</li> <li>Public consultation on a Regulatory Impact Statement and the proposed regulations will begin in late September 2019</li> <li>Community members are encouraged to keep an eye on <a href="http://engage.vic.gov.au">engage.vic.gov.au</a></li> </ul> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>LH to circulate link to CRG members.</li> </ul>
6	<p><b>Discussion: Development of CRG Newsletter Issue #3</b> <i>Lyndel Hunter, LHSC</i></p> <p>LH sought topics for the newsletter. Acknowledged that TH had submitted several pages of recommendations.</p> <p>WB described visit she had had from representatives of the Quarry Bothers Me group seeking a signature on a petition objecting to the quarry. WB explained that the misinformation being provided bothered her. Following discussion, in addition to TH's list, the following topics were suggested, with an emphasis on clarifying the misinformation being provided to the community:</p> <ul style="list-style-type: none"> <li>Update on Hillview Agistment Park</li> <li>Actions since last newsletter</li> <li>Information regarding proposed extension, including map and a list of all the studies and monitoring being undertaken, particularly relevant to ongoing monitoring of blasting and dust</li> <li>Rehabilitation – before and after</li> <li>Overburden placement</li> <li>Wellington Road – traffic</li> <li>Swift Parrot</li> <li>Vibration report – including information re blasting and damage</li> <li>Expert opinions</li> <li>What the product is being used for</li> <li>MV suggested that a Frequently Asked Questions (FAQs) section would respond to a number of the issues listed, eg, What is the rock used for? Does my house crack because of the blasting?</li> <li>Links to external information sources should be included.</li> </ul> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>LH to contact TH to discuss final list of topics</li> <li>LH to have draft newsletter available at next CRG meeting.</li> </ul>
7	<p><b>Other Business</b></p> <p><b>7.a Operational Report</b> <i>(refer to APPENDIX D)</i></p> <ul style="list-style-type: none"> <li>BW outlined dust monitoring equipment locations and provided results for: <ul style="list-style-type: none"> <li>Year to date data to July 2019</li> <li>Monthly data for June 2019</li> </ul> </li> </ul>



- Monthly data for July 2019
- Data for rainfall was provided
- Data for wind was provided
- It was noted that May, June and July rainfall was slightly above average, while January, February and April were one third of average.
- Most dust readings are well down on prior months, excluding the Park gauge which is close to the fire break and in the path of the active rehabilitation face.
- Montague Crescent dust is low after showing higher readings during the drier months earlier in the year.
- Street sweeper program is continuing. It commences approximately 4:30am on Monday, Wednesday and Friday
- Hanson is trialling dust management technology (fogger) options. It is just water, no stinky products. Will operate with GLUON applied with a watercart cannon.
- BW presented videos of past six blasts and blast monitoring results. GG queried whether on site blasting monitoring is undertaken on the western boundary. ERR received complaint from resident located 1.5kms from site who reported house vibration. WB advised that her property made noises, but not from blasting.
- BW advised that new crushing equipment had been installed. Everything is fully enclosed to assist dust mitigation
- BW reported that he had attended VicRoads meeting with BO
- Advised that weed sparing program is continuing. SO queried what product was used. BW advised that Hanson used GRAXON as it does not affect bees.
- BW reported that Rowville CFA attended a site meeting at the quarry. They undertook site infrastructure familiarisation and planning on filling arrangements for Hanson to help provide water in the event of the need during the fire season. Hanson has a 50,000 litre mobile watercart available for remote filling. Watercart can fill 22 fire trucks. Watercart was utilised during the Bunyip fires to fill 25 fire trucks.
- BW advised that progressive rehabilitation was being undertaken. Top soil from opposite buffers was being utilised.

After the presentation, the following was queried / noted:

- WB queried wheel wash and removal of mud from mud flaps. BW to investigate further.
- AB queried if anything can be done about yellow lorry in the 'graveyard'.

#### **Actions:**

- BW to further investigate removal of mud from flaps in wheel wash
- BW to investigate opportunities to remove / obscure yellow lorry from 'graveyard'

#### **7.b Questions and Answers**

There were no further questions from CRG members.

<b>Meeting Closed:</b>	8:50pm
<b>Next Meeting:</b>	Meeting 20 Wednesday 23 October 2019 at 6:00pm

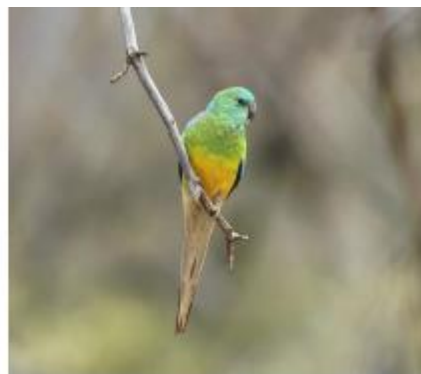
**Hanson Lysterfield Quarry  
Community Reference Group**

**MINUTES OF MEETING**

**ACTION SUMMARY**

<b>Item</b>	<b>Issue</b>	<b>Action</b>	<b>By</b>
3	Hanson to organise walk in the Lysterfield Park to better understand aesthetic of quarry from the park.	asap	RF
4	Results of drilling study to be presented at next CRG meeting	23.10.19	GH
4	Hanson to change the 'words' within the plan to ensure the future is not 'locked in to' housing or other residential development and the equine facilities should be clearly identified	During development of rehabilitation plan	GH RF
4	CRG members to review the presentation prior to discussion at next meeting	23.10.19	CRG members
5	LH to circulate relevant engage.vic.gov.au link to CRG members	asap	LH
6	LH to contact TH to discuss final list of topics	asap	LH
6	LH to have draft newsletter available at next CRG meeting	23.10.19	LH
7a	BW to further investigate removal of mud from flaps in wheel wash	23.10.19	BW
7a	BW to investigate opportunities to remove / obscure yellow lorry from 'graveyard'	23.10.19	BW

# Quarry Rehabilitation & Biodiversity at Hanson



Ken Brown- Hanson Australia



Biodiversity is one of the 6 pillars of the Hanson HeidelbergCement Sustainability Ambitions 2020 policy



- Internal ecologists providing best-practice biodiversity advice for quarry rehabilitation and active site management
- Sites identified with High Biodiversity Value and roll-out of Biodiversity Management Plans underway
- Biodiversity included in after-use plans when possible and this metric is to be reported annually from 2019
- Biodiversity initiatives implemented by Hanson Heidelbergcement include: **Partnerships** with NGO's (Birdlife International), and **The Quarry Life Award**



## Quarry Rehabilitation

- In Australia the default Post-Extractive Land use is Indigenous Vegetation and/ or Farmland
- Community desire is to turn sites into parklands
- Now required to do Progressive Quarry Rehabilitation
- As a company we also aim to provide habitats for species while sites are operational and into the future
- Case Studies



Gaskell Sand is in the South-Western Australian Biodiversity Hotspot



Banksia Woodlands of the Swan Coastal Plain- Gaskell Sand Quarry



Grasslands & Woodlands of the Victorian Volcanic Plains-  
Wollert Quarry Rehabilitation

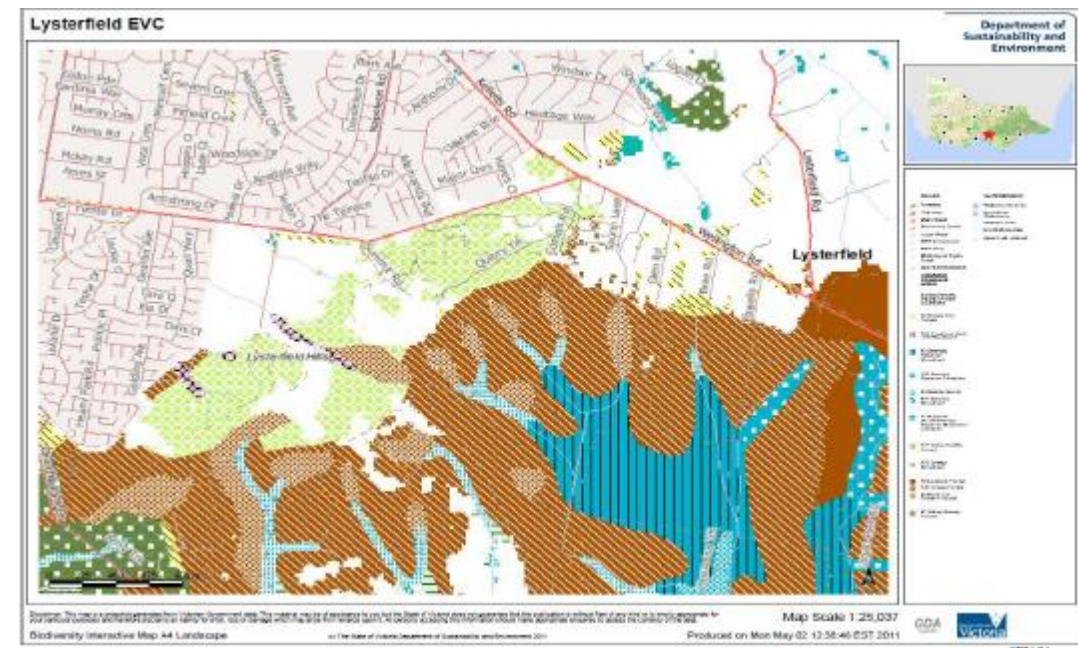






## Quarry Rehabilitation- Seed & Plant Sources

- Topsoil seedbank retained and used
- Can be little indigenous vegetation; weed seeds; long time-frames
- Direct Seeding
- Seed not available; inconsistent results
- Tube-stock planting
- Labour intensive; guarding; expensive
- Indigenous nurseries: Western Plains Flora in North & West Melbourne
- South-east- Cardinia Environment Centre Nursery; and now also Operation Revegetation





TREES		Common name	HEIGHT	RAINFALL
Eucalyptus	obliqua	Messmate Stringybark	90m	dry
Eucalyptus	radiata	Peppermint (narrow-le)	30m-50m	dry
Eucalyptus	globoidea	White Stringybark	30m	dry
Eucalyptus	ovata	Swamp Gum	30m	wet
Eucalyptus	cypellocarpa	Mountain Grey Gum	20m-60m	dry
Eucalyptus	fulgens	Green Scentbark	12m-20m	dry-moist
Eucalyptus	cephalocarpa	Mealy Stringybark	15m	moist
Eucalyptus viminalis	viminalis	Manna Gum	25m-50m	moist
Allocasuarina	littoralis	Black She-oak	8m-15m	dry
Allocasuarina	paludosa 2	Swamp She-oak	4m-10m	dry
Acacia	melanoxylon	Blackwood	2m-10m	moist
Acacia	dealbata	Silver	5m-10m	dry
Acacia	meamsii	Black Wattle	15m	dry
Banksia	marginata	Silver	2m-10m	dry
Bursaria	spinosa	Sweet Bursaria	3m-5m	adaptable
Olearia	argophylla	* Daisy-bush	* 3m-8m	* moist

SHRUBS					
Acacia	verniciiflua	Varnish wattle	1m-3m	dry	
Acacia	myrtifolia	Myrtle wattle	2m	dry	
Acacia	oxycedrus	Spike Wattle	1m-2m	dry	
Acacia	stricta	Hop Wattle	2m-5m	dry	
Acacia	suaveolens	Sweet wattle	1m-3m	dry	
Acacia	verticillata	Prickly Moses	3m-6m	adaptable	
Allocasuarina	paludosa	Swamp She-oak	2m	moist	
Leptospermum	scoparium & Inigeru	Manuka & Woolly	2m	moist	
Leptospermum	continentale	Prickly Tea-tree	2m-4m	dry-wet	
Banksia	spinulosa	Hairpin Banksia	2m-4m	dry	
Coprosma	quadrifida	Prickly Currant Bush	2m	moist	
Cassinia	aculeata	Dogwood	2m-4m	dry	
Epacris	impressa	Common Heath	1m		
GROUNDCOVERS					
Lomandra	longifolia	Mat rush	0.8m	adaptable	
Poa	labillardieri	Common Tussock Gr	0.8m		
Gahnia	radula	Thatch saw-sedge	1m	dry	
Dianella	revoluta	Black-anther flax lily	0.8m	dry	

## Threatened Species of South-east Melbourne



DWARF GALAXIA

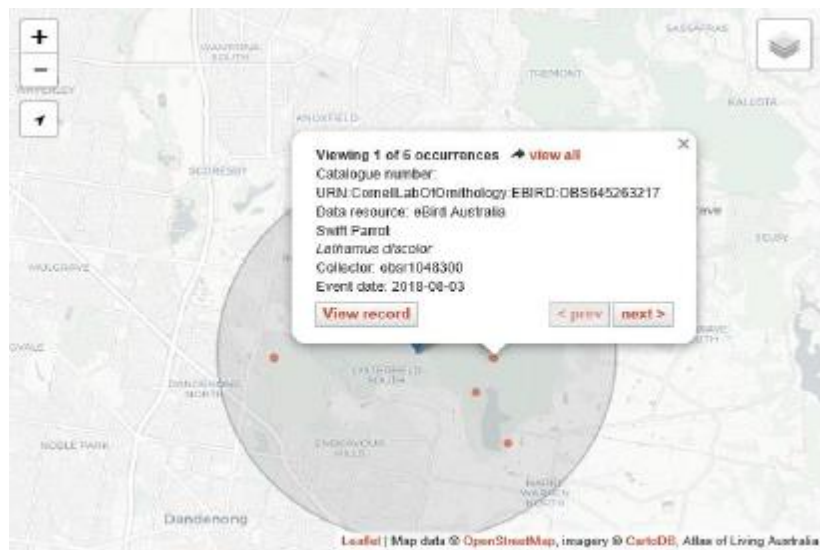
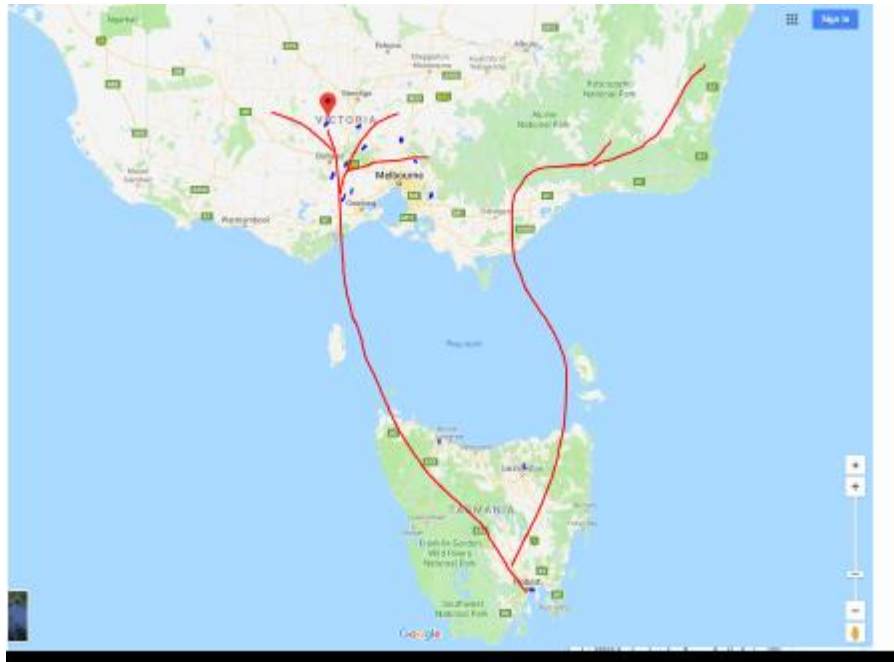
SOUTHERN BROWN  
BANDICOOT

GROWLING GRASS FROG



## Swift Parrot

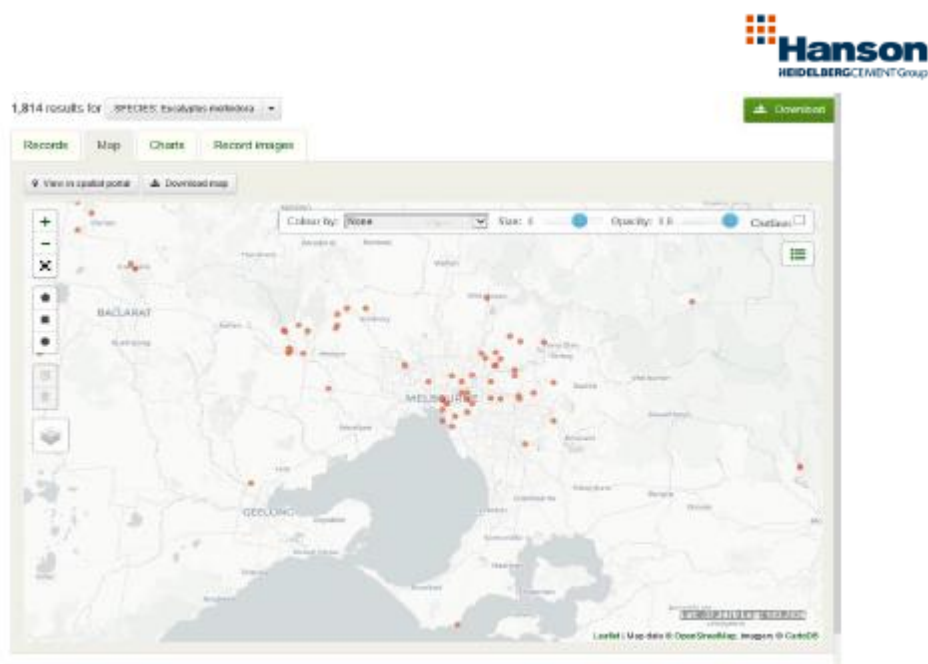
- Listed by the Australian government as Critically Endangered
- Approximately 2000 individuals in the population
- Notable as one of only a few parrots that migrate across open ocean
- It migrates from summer breeding grounds in Tasmania to winter feeding areas in South-Eastern mainland Australia
- Many other migratory birds use Hanson sites in Australia
- Ducks, Waders, Pelicans, Bee-eaters



Tips: you can fine-tune the location of the area by dragging the blue marker icon

## Winter Feeding Grounds

- Winter-flowering eucalypts in Victoria including:
- Ironbarks (*Eucalyptus sideroxylon*)
- Yellow Gum (*Eucalyptus leucoxylon*)
- Yellow Box (*Eucalyptus melliodora*)
- Other species in other areas towards NSW and South Australia if drought conditions in Victoria
- Hanson currently plant a greater percentage of these preferred species in our Victorian sites





## How can Hanson contribute to Swift Parrot conservation?

- Continue to plant appropriate feeding and breeding trees
- Contribute to the monitoring of the species migration across more than 15 sites in 4 states
- Install nest boxes at Hobart Quarry
- Irrigate prime nectar trees when Victoria is in drought e.g. Yellow Gums and Grey Box at Axedale Quarry
- Include Swift Parrot in Biodiversity Management Plan actions



The Quarry Life Award



## Project Update

### Lysterfield Quarry Community Reference Group

September 4<sup>th</sup> 2019

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Slide 1



## Current Quarry Projects

1. Public Acquisition Overlay
2. Quarry Extension
3. Overburden Placement Proposal

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Slide 2

## 1. Public Acquisition Overlay Update

- The POA documentation is still progressing through DELWP.

## Quarry Extension Studies

### Specialist Studies Underway:

- Air quality
  - Zero respirable silica detected
  - PM<sub>10</sub> & PM<sub>2.5</sub> well below thresholds
- Geotechnical
  - Report preparation underway
- Flora
  - Field work complete
  - Vegetation offsets will be required
- Fauna
  - Field work complete
  - Report preparation underway
- Noise
  - Field work complete
  - Report preparation & modelling underway
- Vibration
  - Report preparation underway
- Groundwater
  - Field work drilling complete
  - Flow rate testing underway
- Surface water
  - Field work complete
  - Report preparation underway

### Other Assessments:

- Aboriginal heritage
- Buffer distances
- Community facilities
- European heritage
- Fire safety
- Fly rock
- Future use & rehabilitation
- Landscape & visual amenity
- Public safety
- Public infrastructure
- State & national parks & crown land
- Security
- Traffic





## Groundwater Investigations



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## Groundwater Investigations



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## Overburden Placement & Potential Future Sports Grounds



Nelson | Lyndenfield CRRG Presentation



## Overburden Earthworks Application

- ✓ Prefill Design
- ✓ Lodge Planning Permit
- ✓ Arborist Study
  - Fill placement plan adjusted to avoid trees where possible
  - 7 large trees to be removed
  - Vegetation off sets required
- ✓ Permit Public Display
- ✓ Community Submissions
  - DELWP referrals
  - Council assessment
  - Equestrian Relocation Plan
  - Council Decision
  - Equestrian Relocation
  - Commencement of Prefilling

Current Phase  
in Process

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## Overburden Earthworks Objections

Objection Basis	Objection Relevant to Earthworks?	Hanson response to objection.
Dust - Nuisance	Yes	Manage & minimise
Dust - Silica	Yes	Test results zero
Dust - Asthma	Yes	Manage & minimise
Flora & Fauna	Yes	Offsets
Noise	Yes	Manage & minimise
7am start	Yes	EPA compliant. (Later start possible)
Property Values	Yes	Disagree
Earth Mounds Needed	Yes	Agree. Staging will include mounds.
Sports Grounds	Yes	Disagree
Mud on Road	No	All traffic internal
Traffic	No	All traffic internal
Blasting Vibration & Cracking	No	Earthworks not part of quarry extension
Quarry Extension	No	Earthworks not part of quarry extension
Return Land to Community	No	Planned for future

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# Hanson Lysterfield Quarry

CRG PRESENTATION – QUARRY REHABILITATION DISCUSSION

4 September 2019



## Existing Rehabilitation Plan

WORK AUTHORITY 385



Key elements of the existing plan include:

- Quarry Pit Lake
- Residential
- Rural Residential Lots
- Commercial Parkland
- Passive Parkland



## Existing Rehabilitation Plan

WORK AUTHORITY 385



Important to not get too far ahead of ourselves in the details of the updated Rehabilitation Plan!

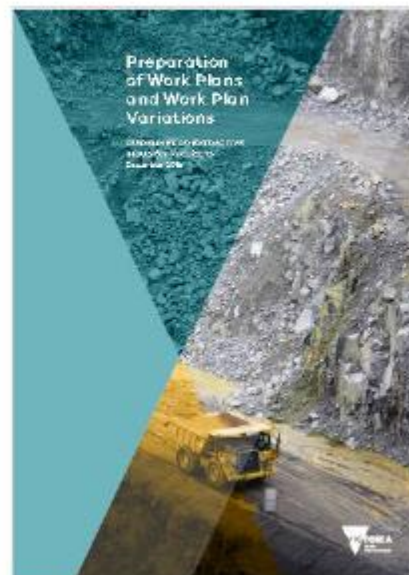


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## Principles for Rehabilitation Plan

WHAT DOES THE REHABILITATION NEED TO ACHIEVE?

- Establishing a long-term safe and stable landform
- Integrated into the existing natural landscape, including the shape of the landform and maximizing the use of indigenous plants in revegetation
- Provides flexibility in the range of potential land use outcomes to meet future social, environmental and commercial needs (i.e. decades from now)
- Can be implemented progressively through ongoing operations
- Is commercially and operationally viable to Hanson



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## Rehabilitation Concepts

### DEEP QUARRY OPTION

Required where the depth of the quarry makes backfilling commercially or technically unfeasible.

This option would provide:

- Residential development and public sport and recreation in the north, as per existing plan;
- Shaping and revegetation of quarry batters to integrate into landscape; and,
- Quarry pit lake integrated with a developable area suitable for a range of commercial, residential or community outcomes.



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## Rehabilitation Concepts

### SHALLOW QUARRY OPTION

Required where the depth of the quarry is rehabilitated above the long-term groundwater elevation.

This option would provide:

- Residential development and public sport and recreation in the north, as per existing plan;
- Shaping and revegetation of quarry batters to integrate into landscape; and,
- Reformation of the quarry base to support a large developable area suitable for a range of commercial, residential or community outcomes.



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## Feedback

### OPEN DISCUSSION ON THE REHABILITATION CONCEPTS

- Do the concepts align with the principles we wish to see?
- Do the concepts provide the desired flexibility in potential land use outcomes?
- Is the shape and general layout of the final landform consistent with people's expectations?
- Are there details missing that people would like considered?



## Community engagement – roles, responsibilities and expectations

Dan Salmon, Senior Adviser,  
Stakeholder Engagement  
Earth Resources Regulation  
4 September 2019



### Why is engagement important?

- Community can be impacted by quarry operations
- Social Licence to Operate – makes it easier for everyone



### Social Licence to Operate

- Refers to acceptance (and sometimes even support) of an operator within a community
- SLO is not automatic, and it needs trust to be maintained
- Can be achieved in any number of ways – but always includes effective community engagement

## Community Engagement Requirements in Legislation

- *Mineral Resources (Sustainable Development) Act 1990*
  - Section 77K – Duty to consult by:
    - sharing information with the community
    - providing a reasonable opportunity for community to express their views
  - Section 77G – Community Engagement Plan



## Community Engagement Requirements in Legislation

- *Mineral Resources (Sustainable Development) (Extractive Industries) Regulations 2013*
  - Schedule 1, Part 1, 6 – A community engagement plan that:
    - Identifies any community likely to be affected
    - Includes proposals to:
      - identify community attitudes and expectations
      - provide information to the community
      - receive feedback from the community
      - analyse community feedback and consider community concerns and expectations
    - Includes a proposal to register, document and respond to complaints and other feedback

## What does this look like in practice?

- Good community engagement can take any number of forms:
  - Face to face conversations
  - Community meetings or drop-in sessions
  - Letter drops
  - Local publications and advertising
  - Email newsletters
  - Websites and social media
  - ERCs or CRGs
  - Prompt and effective response to issues
- The Act is not prescriptive – it's up to the operator to identify what the best way of engaging with their community is

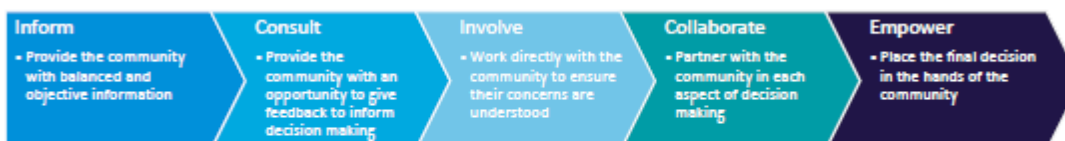
## Community Engagement Plans

- Submitted as part of a work plan as required by the Act
- Must identify community members and groups who may be impacted
- Must identify issues that are of concern to community and methods of minimising impact (this can be captured in risk management plan)
- We've developed guidelines to assist operators to develop their plans and employ best practice community engagement
- We promote the use of the International Association for Public Participation (IAP2) public participation spectrum



## International Association of Public Participation (IAP2) Spectrum

- Promotes best practice community engagement
- Assists in defining the role of stakeholders and the most appropriate level of engagement
- Five levels of engagement:



Source: International Association for Public Participation



## Have your say on the new extractives regulations

- Extractives Regulations expire 27 January 2020
- Earth Resources Policy and Legislation is currently developing new regulations
- Public consultation on a Regulatory Impact Statement (RIS) and the proposed regulations will begin late September
- Keep an eye on [engage.vic.gov.au](http://engage.vic.gov.au)



## ITEM 7a OPERATIONS REPORT

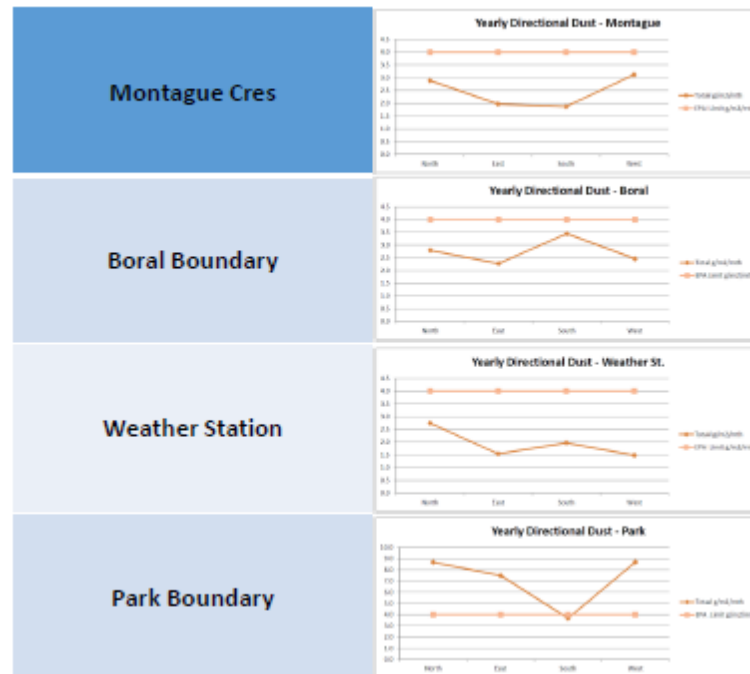
# Hanson Lysterfield

- Dust Deposition Gauges Report
- June 2019
- July 2019

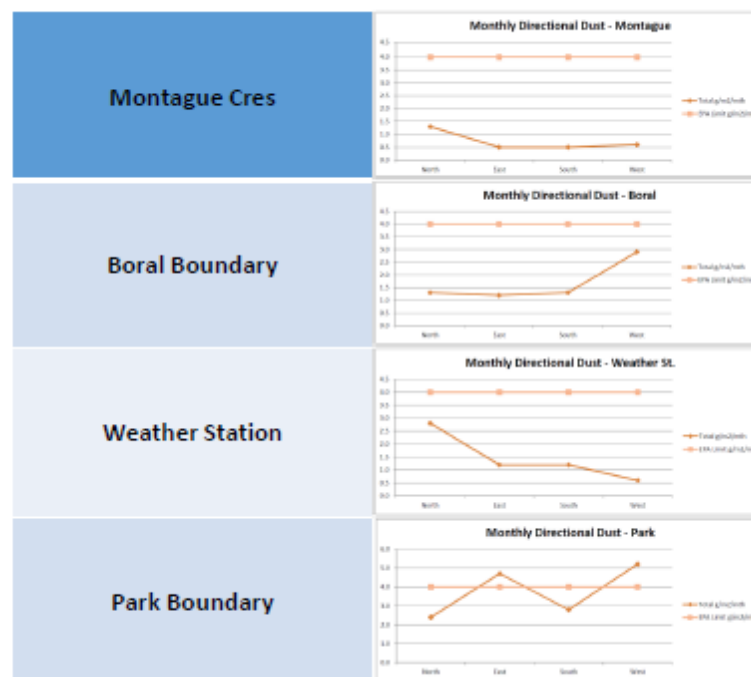
Directional Dust Deposition Gauge near Montague Cres.



## Year To Date Data – July 2019



## Monthly Data – June 2019






ay2p\_dgplay\_type=dailyOutputFile&p\_sccObjCode=135&\_atn\_name=0853048&c=1482641716&\_startYear=2012





Wind & Weather Data Link... <http://www.bom.gov.au/climate/dwo/201905/html/IDC/DW3072.201905.shtml>



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June 2019 Daily Weather Observations


Date	Day	Temps		Rain	Evap	Sun	Max wind gust				4 am				3 pm				
		Min	Max				Dir	Spd	Temp	RH	Clcd	Dir	Spd	NSLP	Temp	RH	Clcd	Dir	Spd
		°C	°C	mm	mm	hours		km/h	km/h	°C	%	g/h		°C	%	g/h		km/h	hPa
1	Sa	10.9	13.7	2.6			SW	19	00.28	11.3	85		<b>Calm</b>	13.3	75		SW	9	
2	Su	10.0	13.6	0			W	14	01.41	10.9	88		WNW	4	72.7	87	WNW	6	
3	Mo	7.9	15.5	8.4			SSE	28	13.67	8.3	95		SSW	7	70.2	88	S	9	
4	Tu	5.1	12.1	8.8			S	26	12.10	7.3	91		SSW	4	72.5	55	S	8	
5	We	6.2	12.3	0			WSW	24	16.31	9.4	94		<b>Calm</b>	11.6	65		WSW	11	
6	Th	9.2	14.7	1.4			WISW	22	13.32	10.7	96		WISW	4	73.6	77	SW	13	
7	Fr	9.9	16.8	8.2			NNE	17	13.26	11.1	78		NW	2	75.6	61	N	2	
8	Sa	5.1	18.4	0			NNE	23	15.21	11.7	61		NNE	11	71.4	53	NNE	20	
9	Su	8.3	18.3	0			NNE	28	00.55	11.3	77		NNE	7	71.7	47	N	11	
10	Mo	11.4	18.1	4.6			NNE	48	06.17	14.4	80		N	17	71.3	47	WNW	15	
11	Tu	8.3	17.7	0			NNE	31	21.59	12.1	75		NNE	11	71.2	54	N	13	
12	We	12.1	17.1	8.1			NW	43	15.01	<b>17.1</b>	66		NNE	13	95.0	77	NW	20	
13	Th	6.7	16.1	5.6			NW	31	13.30	5.9	87		NNE	7	78.2	57	NW	13	
14	Fr	9.4	15.8	2.8			N	31	14.05	11.6	82		NNE	9	74.6	68	N	13	
15	Sa	5.5	14.2	3.0			<b>NNE</b>	<b>16</b>	<b>10.12</b>	10.2	87		NNE	7	73.4	72	<b>Calm</b>		
16	Su	7.7	16.3	0.2			W	20	16.68	10.5	81		NNE	6	95.7	59	NW	7	
17	Mo	4.6	16.4	0.2			NNE	30	22.55	8.7	84		NE	4	95.0	54	NNE	9	
18	Tu	8.6	12.3	0						10.8	75		N	7	9.0	85	WSW	17	
19	We	4.5	11.4	3.4			WISW	22	14.54	5.7	90		NE	7	90.8	70	WSW	13	
20	Th	3.9	9.1	1.8			W	<b>15</b>	<b>12.51</b>	6.5	96		NE	2	<b>7.0</b>	<b>93</b>	<b>Calm</b>		
21	Fr	5.2	11.0	<b>14.6</b>			SW	24	15.04	6.8	97		N	2	93.4	82	SW	6	
22	Sa	4.3	11.0	8.0			<b>SSW</b>	<b>15</b>	<b>15.45</b>	<b>7.0</b>	<b>100</b>		<b>Calm</b>	10.6	80	SW	4		
23	Su	<b>1.8</b>	<b>8.3</b>	1.2			S	19	14.41	<b>2.2</b>	<b>100</b>		N	4	7.8	88	SSE	0	
24	Mo	2.8	15.6	0			<b>N</b>	<b>15</b>	<b>09.21</b>	3.9	88		<b>Calm</b>	14.9	42	<b>Calm</b>			
25	Tu	2.0	15.8	0			NNE	20	13.69	6.0	73		ENE	6	75.6	52	NE	13	
26	We	2.7	15.9	0			NE	24	12.62	7.9	72		NE	2	76.5	49	NNE	7	
27	Th	5.0	17.1	0			NNE	37	11.53	11.2	65		NNE	15	76.6	52	NNE	17	
28	Fr	9.4	<b>18.7</b>	0			NNE	39	11.23	14.2	59		NNE	15	<b>78.3</b>	53	NNE	19	
29	Sa	<b>13.2</b>	8.8				<b>NE</b>	<b>54</b>	<b>13.62</b>	14.0	79		<b>NNE</b>	<b>24</b>	12.6	90	<b>NE</b>	<b>22</b>	
30	Su		10.4				NW	31	13.69				N	11	12.4	60	N	17	

Statistics for June 2019

Mean	9.9	14.7						9.7	82				6	13.6	65		10		
Lowest	<b>1.8</b>	<b>8.3</b>	0					<b>5.2</b>	<b>59</b>			<b>Calm</b>	<b>7.0</b>	<b>42</b>		<b>Calm</b>			
Highest	<b>13.2</b>	<b>18.7</b>	<b>14.6</b>				<b>NE</b>	<b>54</b>	<b>17.1</b>	<b>100</b>		<b>NNE</b>	<b>24</b>	<b>78.3</b>	<b>53</b>	<b>NE</b>	<b>22</b>		
Total			77.2																

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Wind & Weather Data Link... <http://www.bom.gov.au/climate/dwo/201907/html/IDC/DW3072.201905.shtml>



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SEARCH WEATHER DATA

HOMEVSEOLDENSATASACTNTAUSTRALIAGLOBALMETEORITICA

Scoresby, Victoria

July 2019 Daily Weather Observations

Temps		Rain	Evap	Sun	Max wind gust				9 am				3 pm						
Date	Day	Min	Max	Tau	Dir	Spd	Time	Temp	RH	Cld	Dir	Spd	MSLP	Temp	RH	Cld	Dir	Spd	MSLP
		°C	°C	mm	(hrs)	kph		°C	%	gph		kph	mPa	°C	%	gph		kph	mPa
1	Mo	13.3	0		NNE	44	10:59				NNE	17	11.8	58			N	19	
2	Tu	8.8-14.9	0		NNE	37	01:27	9.5	69		NNE	15	13.9	63			W	17	
3	We	6.6-13.3	0		SSW	15	15:45	9.5	65		Calms		12.8	82			SSW	6	
4	Th	4.3-13.9	0.6		S	15	03:36	6.3	100		Calms		13.0	68			Calms		
5	Fr	16.7	0.2		NE	12	15:20	5.7	100		Calms		17.7	48			NE	6	
6	Sa	5.0-18.3	0		N	22	13:38	11.7	70		N	4	17.1	51			NNE	9	
7	Su	6.1-17.0	0		NNE	10	12:21	13.6	61		NNE	9	16.2	61			NE	11	
8	Mo	9.9-15.1	7.8		NNW	26	12:40	10.7	91		Calms		14.3	57			W	15	
9	Tu	5.3-14.3	0		NW	26	13:17	9.1	81		N	6	11.2	87			NNW	2	
10	We	8.2-14.1	1.4		NNE	61	11:58	10.5	75		NNE	13	13.3	59			NNE	26	
11	Th	6.2-12.6	7.0		N	43	14:20	9.2	69		N	17	10.7	86			N	17	
12	Fr	6.0-14.5	2.8		NNW	57	17:31	11.5	83		N	17	13.4	53			NNW	15	
13	Sa	5.3-10.8	8.2		SW	56	14:36	7.5	73		WNW	17	7.3	83			SW	13	
14	Su	4.4-11.4	10.0		W	50	17:25	6.9	80		N	11	10.4	86			WNW	11	
15	Mo	6.9-12.8	12.4		WSW	37	00:25	9.1	95		W	6	12.4	75			W	11	
16	Tu	6.9-13.0	0.6		W	35	12:06	10.9	96		W	13	12.7	78			W	15	
17	We	8.5-11.6	0.2		NNE	33	11:17	10.1	74		NNE	9	10.6	80			NW	9	
18	Th	6.9-13.5	1.6		N	36	11:13	8.8	82		NNE	6	12.5	85			N	17	
19	Fr	6.9-14.5	1.6		NNE	36	00:40	9.4	92		Calms		14.3	53			N	7	
20	Sa	7.7-16.0	0		N	46	14:52	11.6	65		NE	19	15.4	63			N	20	
21	Su	11.8-15.3	0		NNE	43	06:12	12.6	53		N	17	14.1	62			N	9	
22	Mo	8.3-15.1	0		NNE	48	21:36	10.7	64		NNE	19	14.6	63			NNE	20	
23	Tu	9.5-15.9	1.0		N	50	17:48	9.6	86		NW	7	13.6	52			N	15	
24	We	4.6-12.8	13.8		NNW	32	12:28	7.4	74		NNE	9	11.7	85			N	7	
25	Th	7.3-13.9	0		N	31	13:28	10.8	80		NNE	9	13.1	67			N	17	
26	Fr	10.1-13.7	0		NNE	26	04:41	11.2	69		NNE	13	12.8	76			N	4	
27	Sa	8.4-14.3	10.2		NW	26	12:11	9.9	66		NNE	7	13.6	58			NNW	9	
28	Su	3.5-14.4	0		N	15	13:43	8.2	60		NNE	2	13.4	56			NNW	4	
29	Mo	7.0-14.6	0		SW	24	13:33	9.3	67		NE	6	12.9	68			SW	7	
30	Tu	6.8-12.3	0.6		SSW	24	10:51	8.1	85		SSE	4	10.9	59			SSE	9	
31	We	6.0-13.4	0		SW	16	12:10	6.7	86		Calms		11.4	62			SSE	6	

Statistics for July 2019

Mean	7.0-14.1						9.5	81		8	13.0	65		11					
Lowest	0.0-10.8	0					5.7	53		Calms		7.3	48				Calms		
Highest	11.6-18.7	13.8					NNE	61		13.6	100	17.7	89				NNE	26	
Total																			

80.0

PERCENTILES: 10TH: 6.0-13.4 25TH: 6.8-12.3 50TH: 7.0-14.6 75TH: 8.2-14.3 90TH: 9.5-15.9

## Comments, Observations & Photos

- Wind & weather data link
  - May, Jun & July rainfall slightly above average.
  - Jan, Feb & April were one third of average.
- Comments...
- Most dust readings are well down on prior months
  - Excluding "Park" gauge which is close to fire break & active Rehabilitation face.
  - Montague Cres dust is low, after showing higher readings during drier months early this year.

### Street sweeper program continuing

Starts approx. 4.30am Monday Wednesday Friday



## Dust management technology options



## Blasting performance



## New Crushing Equipment Metso MX4 Gyro cone





## Production from the New Crushers



## Vic Roads meeting – Wellington village intersection





## Weed spraying program continuing



## Drilling process RL150 Bench



## Rowville CFA onsite meeting held

- Site infrastructure familiarisation
- Planning on filling arrangement's - to provide water in the event of the need during fire season
- Water pumps and pipe fitting arrangements to fill fire trucks
- 50,000 mobile watercart for remote filling



## Progressive rehabilitation





