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Boral Teven Quarry

Community Consultative Committee meeting

15 October 2015

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Agenda

Boral Teven Quarry Community Consultative Committee Meeting 15 October 2015

- **Welcome and introductions**
- **2015 Whole-of-Community meeting and matters arising**
  - 16 July 2015
- **Quarry operations update**
- **Special presentation: dust emissions and management**
- **Environmental management update and monitoring**
- **Re-examination/modification of quarry consent**
- **Community activities and general business**

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Boral personnel in attendance

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- **Matt Duff**
  Assistant Quarry Manager, Boral Teven Quarry
- **Dr Richard Strauch**
  Group Environmental Advisor, Boral HSE
- **Rod Wallace**
  Planning & Development Manager (NSW), Boral Property Group
- **Nathan Jeffery**
  HSE Advisor (Northern NSW), Boral HSE
- **Paul Jackson**
  Stakeholder Relations Manager (Southern Region), Boral Property Group

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Whole-of-Community meeting & matters arising

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- **Confirmation of the minutes from the 2015 Whole-of-Community meeting**
  - 16 July 2015
  - **NOTE:** Presentations and meeting notes from previous meetings are available from the quarry's website – **www.boral.com.au/tevenquarry**
- **Any matters arising?**
  - Change of community representative member – Rajee Henderson to Sam Henderson
  - Removal of palm trees along quarry boundary
  - April 2015 'double blast' event – Holcim Teven Quarry
  - Boral proposal re Saturday working hours – TO BE ADDRESSED LATER IN MEETING
- **Apologies for this meeting**

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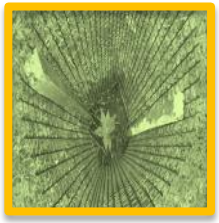
Boral Teven Quarry

Quarry operations update

***Matt Duff**, Assistant Quarry Manager – Boral Teven Quarry*



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Operations overview

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- **Current projects**
  - Highway upgrade – Pimlico to Teven
- **Local projects**
  - Internal supply to Boral Concrete plants
    - Highway Tintenbar to Ewingsdale
    - Smith Street storage sheds
  - Internal supply to Boral Asphalt plant
  - Local civil construction companies
    - Ballina – Ferngrove Estate
    - Byron Bay Hospital sewage upgrade
    - Mclean's Ridges – Cameron Rd upgrade
    - Ballina Race Course – raise track level
    - Ballina Service Centre

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Site Improvements Program

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Site Improvements Program

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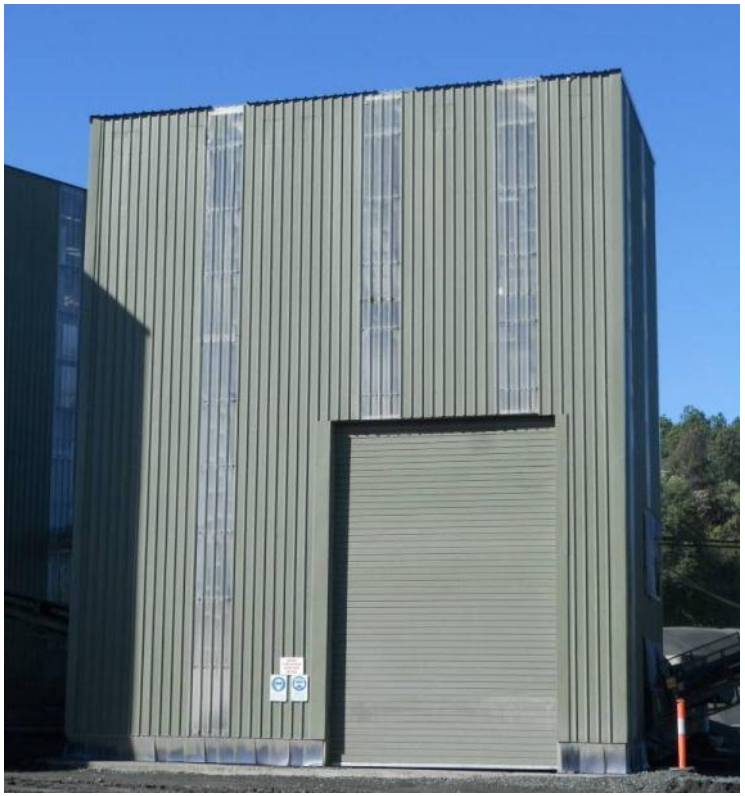
Building 2 (Looking South)



Buildings 1, 2 and 3 (Looking East)

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Site Improvements Program

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- **Improvement Projects**
  - Continuing weed management activities
  - Planting of native seedlings on small earth bund above ROM pad
  - Development and planting of earth bund near Beacons Road
  - Painting of pre-coat plant
  - Decommission old diesel tanks and remove from site
  - Surface water management improvements
  - Installation of raised galvanised steel grid at wheel wash with under wheel sprays
  - Development of Argillite resource and developing stable accessible benches (*photo on next slide*)

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Site Improvements Program

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- Argillite resource access and Argillite high wall stabilization and visual improvements in the long term

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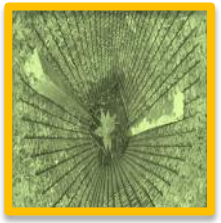
Special presentation: dust emissions and management

***Dr Richard Strauch**, Group Environmental Advisor, Boral HSE*



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Dust, fine particles (PM_{10}) & health

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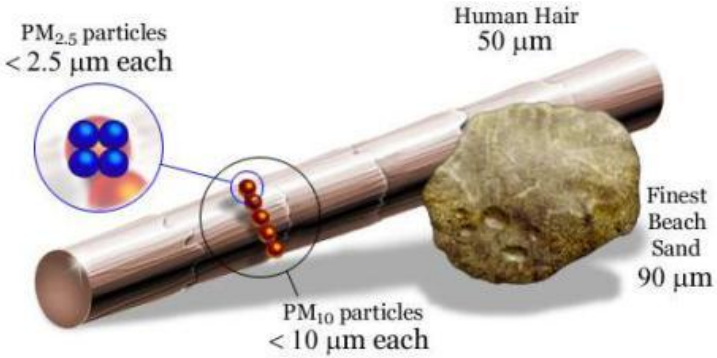
- Concentrations of fine particles (PM_{10} & $PM_{2.5}$) in ambient air, mainly due to vehicle pollution particularly in urban areas, can be associated with a range of respiratory diseases.
- 'Dust' that settles is not PM_{10}, it is Total Suspended Particulate (TSP) and bigger. TSP constitutes a nuisance, causing transient health impact (coughing/sneezing). Dust from quarries is dominated by TSP which is, very roughly, $PM_{40,}$ though of course it has a component that is PM_{10}
- PM_{10} alone can sometimes be seen as a visibility reducing fine cloud or fog, particularly in early morning/late afternoon sunlight (think of dust motes in a shaft of sunlight). It does not settle, but disperses in the air.
- PM_{10} in quarries is dominated by material from roads (aggregates, clays and silts crushed under vehicles), and processing plant (crushed rock products)
- Urban PM_{10} backgrounds, which have a larger component of $PM_{2.5}$, are typically 15-20 *u*g/m^3 (24 hr)
- The national standard and goal is to not exceed 50 *u*g/m^3 (24hr) more than 5 days each year (it is NOT just a concentration limit)



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Monitoring & understanding results

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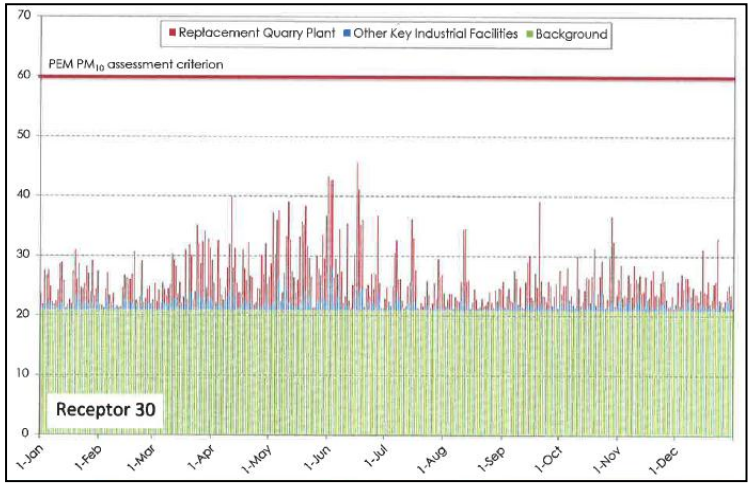
- PM_{10} monitors measure all PM_{10}, whether or not it is from the nearby quarry. Average background levels are usually much higher than a quarry's contribution.
- Over time, a picture should/could emerge of the quarry's contribution to local air quality, particularly on days when the general air flow is from the quarry towards any residential areas.
- This may take a year or more, as typical wind flows and degree of dryness are seasonally dependent.
- It is not unusual for the monitors to identify sources/issues from outside as well as inside the quarry boundaries.

Typical factors to consider



Typical Annual Results

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Some of Boral's monitoring experiences

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Controls

- If unreasonable contribution against background is detected, an operation can and should act to reduce that contribution
- The focus should be on roads & traffic, followed by main processing plant
- For roads, this could mean
  - better watering/silt/dust control of existing roads
  - relocation of key roads
  - traffic controls
- For the plant, this could be
  - more extensive cladding
  - more extensive extraction/dust collection
  - misting/fogging systems
- Such controls are clearly major changes in the main, and hence should be planned methodically and with confidence they will be effective

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Boral Teven Quarry

Environmental management & monitoring

Nathan Jeffery, *HSE Advisor (Northern NSW)*

Site environmental management

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Weed control and rehabilitation

- **Since whole-of-community meeting in July 2015:**
  - 126 man hours on weed control
- **Contractors are scheduled to do 48 hours of on-site works per month which will include**
  - Weed control
    - Maintenance of previously controlled areas, and
    - Expanding controlled areas
  - Native grass and tree plantings

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Monitoring – Deposited Dust

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	Averaging Period	g/m²/month[a]
Deposited Dust[b]	Annual	4.00

a – Maximum total deposited dust level

b – Dust is assessed as insoluble solids as defined by AS3580.10.1-1991 (AM-19) (*At the nearest existing or likely future off-site sensitive receptor*)

Source: Table 7.1 (Page 28) of the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW – DEC 2005

Average Dust Deposition (Insoluble Solids) – October 2014 to September 2015 (Inclusive)

Site 1	0.63 g/m²
Site 2	1.93 g/m²
Site 3	2.60 g/m²
Site 4	0.97 g/m²

As of February 2015 the Environmental Analysis Laboratory (EAL) at Southern Cross University has been collecting and analysing the Deposited Dust sample bottles from the Boral Teven Quarry

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Monitoring – Dust Deposition

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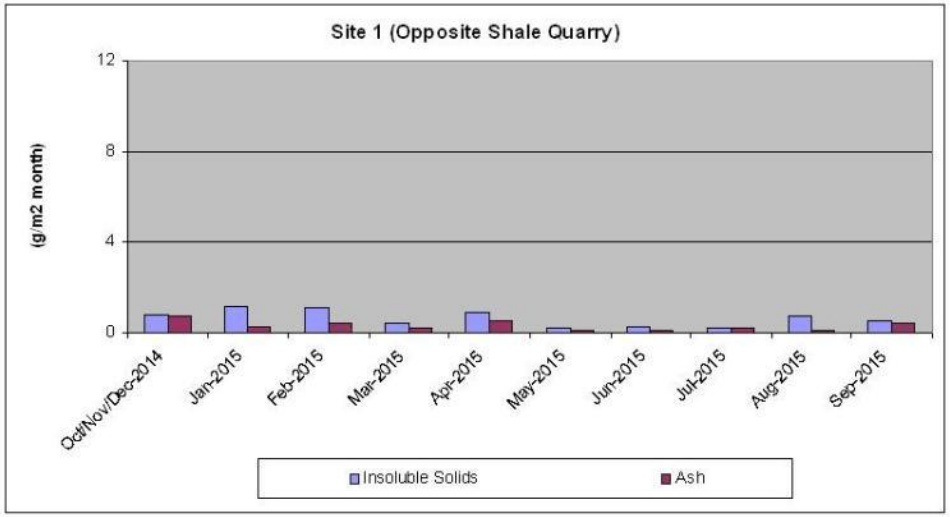

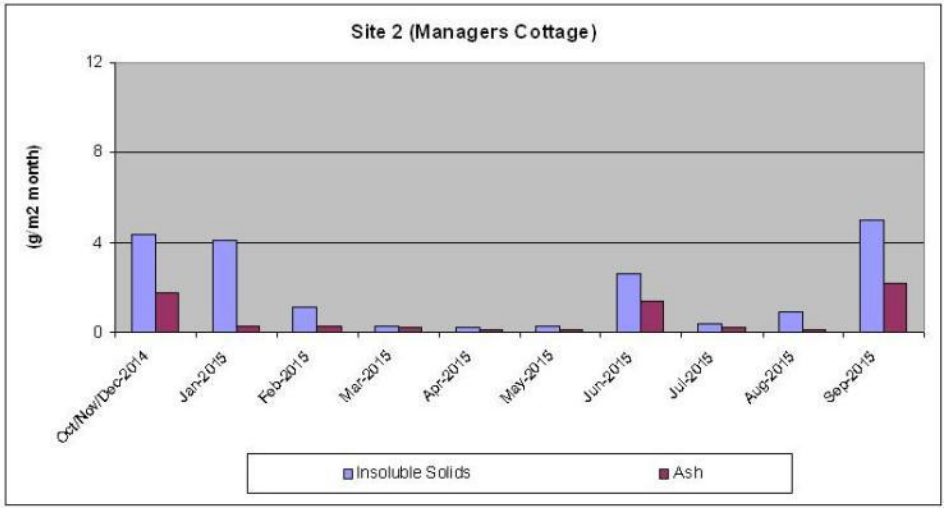

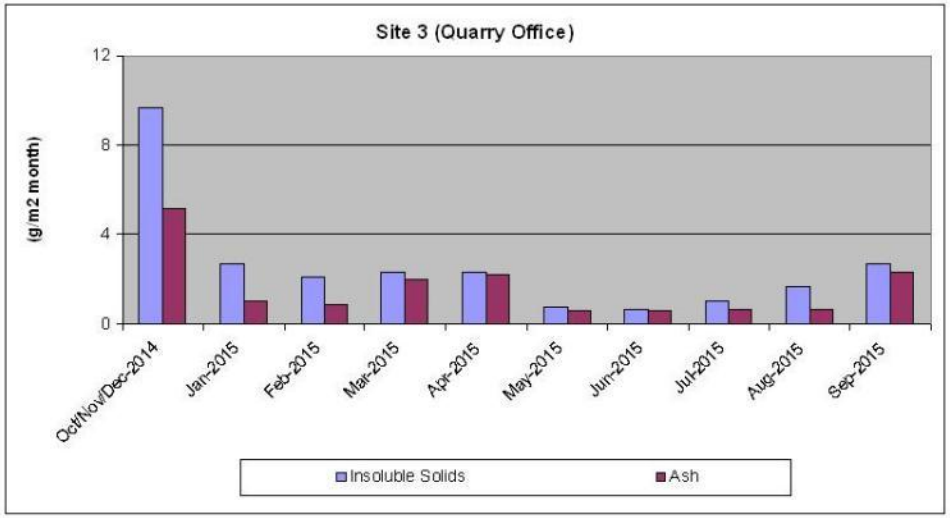

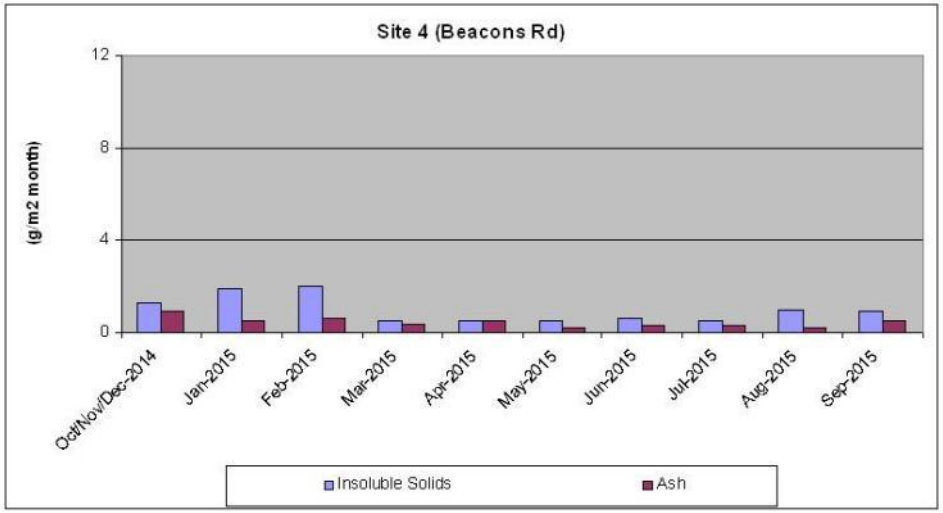

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Monitoring – Water

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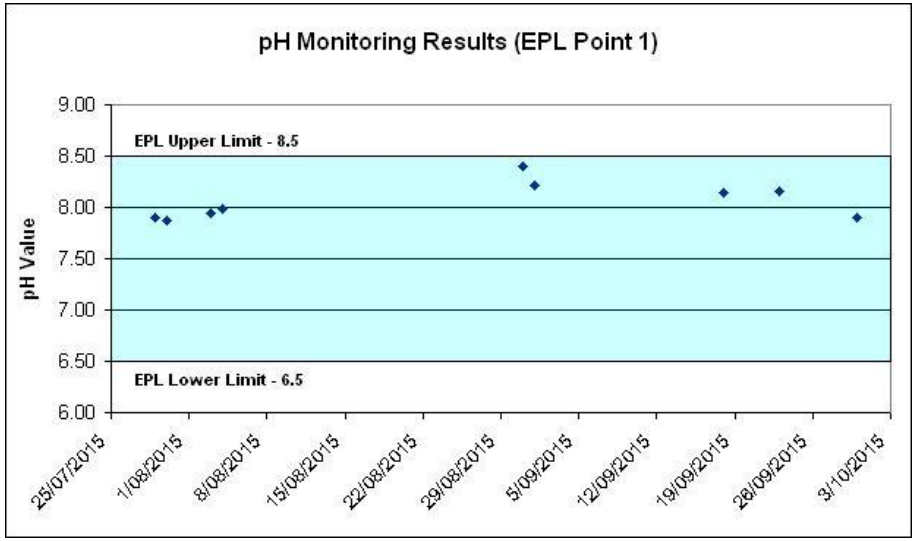

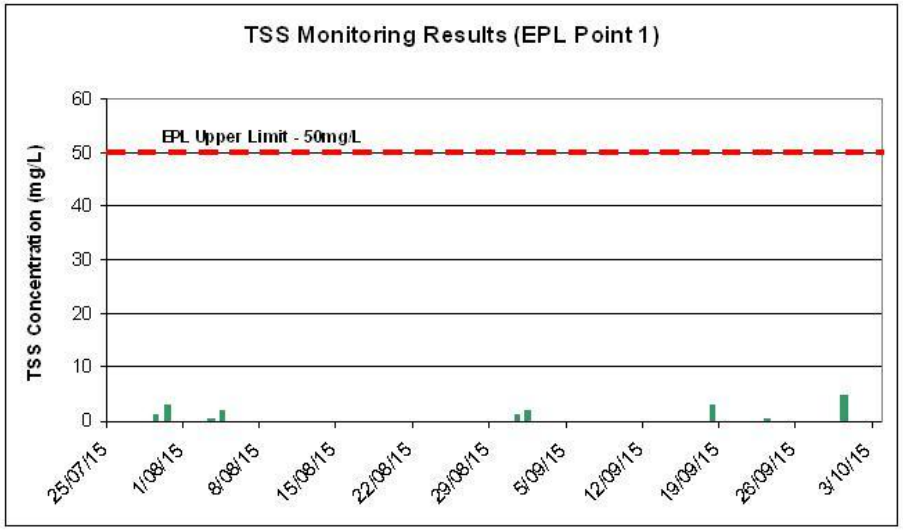

	Monitoring Point 1	
Date Sampled	pH	TSS (mg/L)
29/07/15	7.90	1
30/07/15	7.87	3
3/08/15	7.94	<1
4/08/15	7.99	2
31/08/15	8.40	1
1/09/15	8.22	2
18/09/15	8.14	3
23/09/15	8.16	<1
30/09/15	7.90	5
EPA Limits	6.5 – 8.5	50

Monitoring – Blast results

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Date	Time	Over pressure (dB)	Peak Vibration (mm/s)
Tuesday, 8 September 2015	11:48:58	109.9	2.03
Tuesday, 22 September 2015	13:20:50	114.4	1.52
Thursday, 1 October 2015	13:03:07	106.0	2.10

Boral Teven Quarry Blast Limits;

- Only 1 blast per day
- Only blast between 9am to 4pm Monday to Friday
- Vibration limits
  - 5mm/s 95%
  - 10mm/s 100%
- Overpressure Limits
  - 115dB 95%
  - 120dB 100%

Complaints Summary

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- There have been two incidents reported to the quarry since the meeting in July 2015
  - 24/8/2015 – Residential Neighbour (S of Quarry)
    - Concern: Noise coming from a water pump which was left running 24/7
    - Cause: Water pump supplying water to crushing plant was inadvertently left running over the weekend (not pumping)
    - Corrective Action: Pump replaced, daily site closure checklist updated to include check on this item
  - 7/10/2015 – NSW EPA
    - Concern: Ballina Council reported to EPA that Maguires Creek was a red colour near our quarry
    - Cause: At this stage the cause is unknown, water samples were collected from the creek and have been sent for testing (for pH, TSS). EPA mentioned it could have been an algal bloom. No evidence of discoloration when inspected the same day as we received the call from the EPA
    - Corrective Action: None at this stage

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Annual report

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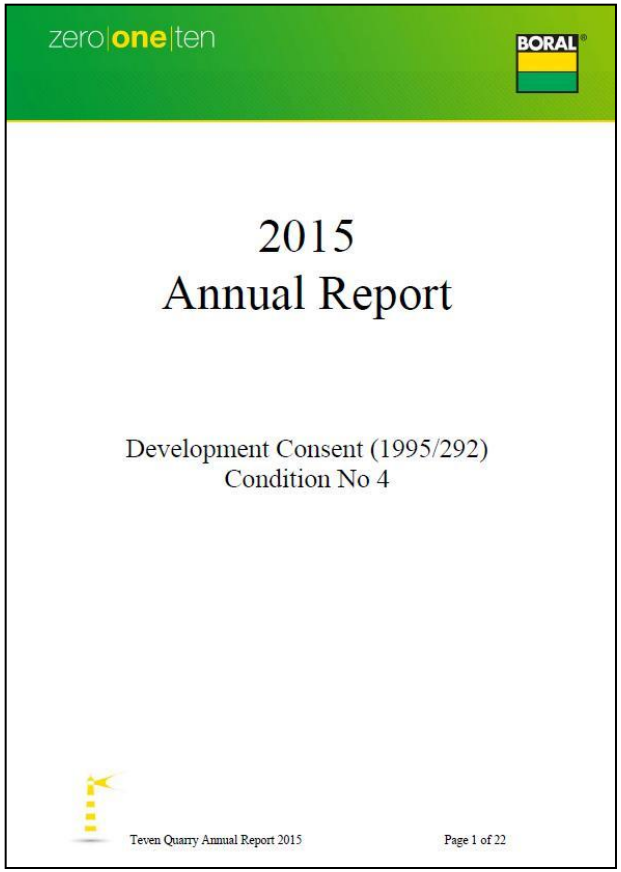
Annual Report

- Condition 4 of the Consent states an Annual Report to be prepared and provided to the CCC
- Reporting period for 2015 Annual Report is from 1/7/2014 to 30/6/2015
- Contains the same data that is being presented to CCC committee
- Condition 4 requirement;
  - *An annual report shall be prepared and submitted by the applicant to the Community Consultative Committee which will include the following:*
    - *details of tree and regenerative plantings;*
    - *details of how the applicant has acted on, complied with or otherwise dealt with or responded to each condition of development consent within the period up to each annual report;*
    - *results of all monitoring, as required by the EPA Licence conditions or otherwise by the EPA or other regulatory authorities, of water discharges, dust emissions and noise and blasting operations;*
    - *alterations to the Plan of Management; and*
    - *the applicant shall, if requested to do so in writing by the consultative committee or its authorised representative, provide to the members of the committee, reasonable access to the site for the purpose of allowing the committee to determine compliance with these conditions of consent.*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BORAL

2015
Annual Report

Development Consent (1995/292)
Condition No 4

Teven Quarry Annual Report 2015 Page 1 of 22

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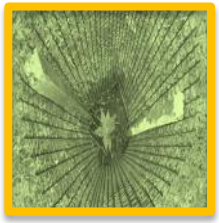
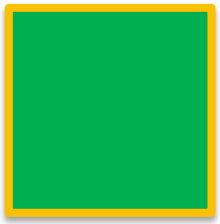
Boral Teven Quarry

Re-examination of quarry consent

Rod Wallace, *Planning & Development Manager (NSW)*





Re-examination of consent termination date

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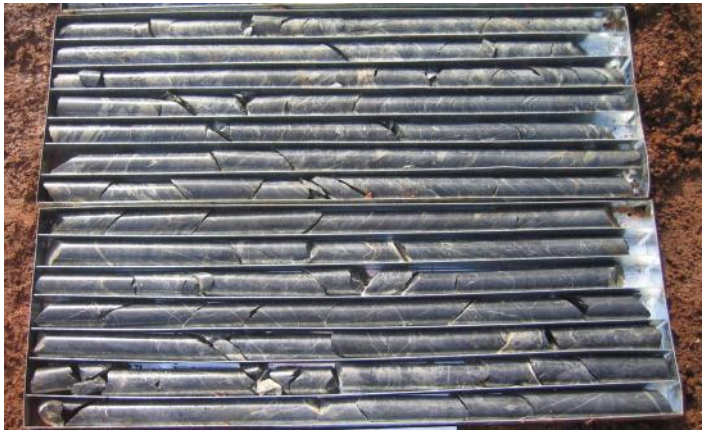
- **Condition 24 of the 1996 development consent states:**
  - *These conditions shall be re-examined by Council and a final date for the termination of the consent determined within, but not later than, six years prior to 20 years after the date of commencement of this consent.*
- **At forecasted production rates, the consented hard rock resource would last another 10 years.**
- **A significant inferred hard rock resource exists beyond the consented quarry footprint which would require a future approval**



Proposed consent re-examination and modification

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- At our meetings with locals during July, we raised our proposal to cease production on Saturdays in exchange for the use of mobile crushing plant (in addition to the fixed plant) between 7am and 4pm on weekdays.
- So far we have had no firm indication as to whether this proposal is acceptable to neighbours.
- If it proves to be acceptable, the mechanism for introducing the change would be through a modification of the existing consent.
- Our proposal also includes incorporating the required re-examination of the consent termination date process with the modification.
- Modification gives Council the mechanism to assess the changes against current guidelines and include conditions within the current consent.
- Planned lodgment - November

Initial results

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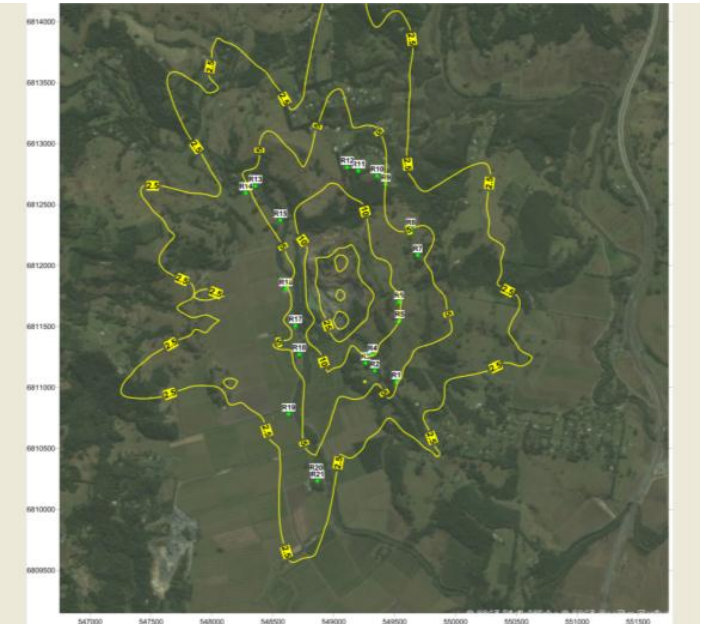
- **Air quality**
  - Initial modelling has been conducted against *Approved Methods for Modelling and Assessment of Air Pollutants in New South Wales (DEC, 2005)*
  - Modelling has predicted the site will comply with deposited dust, PM10, TSP and PM2.5
- **Noise**
  - Attended monitoring has confirmed that the site complies with the existing noise limits
  - The modification will include an assessment against the *NSW Industrial Noise Policy*
  - Noise consultants are currently calibrating the noise model to monitoring results to ensure accuracy of predictions
  - Cladding works have achieved a noise reduction of up to 10 dB(A) at the source



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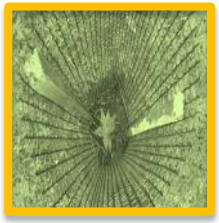
Boral Teven Quarry

Community activities and general business

Paul Jackson, *Stakeholder Relations Manager (Southern Region)*



General business

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- **Items of general business**
- **Next meeting of the Community Consultative Committee**
  - Mar 2016 (usually meet Mar and Sep)
  - Other meetings may be called as part of consent re-examination/modification process
- **Boral Teven Quarry contacts**
  - **Matt Duff** – Assistant Quarry Manager
    6687 8360 or **matthew.duff@boral.com.au**
  - **Nathan Jeffery** – HSE Advisor (Nthn NSW)
    6658 4070 or **nathan.jeffery@boral.com.au**
  - **Paul Jackson** – Stakeholder Relations Manager
    9033 5215 or **paul.jackson2@boral.com.au**
  - **www.boral.com.au/tevenquarry**
  - **www.boral.com.au/feedback**

THANK YOU FOR YOUR ATTENDANCE