

Duralie Coal CCC Meeting

Presentation -
Company Report & Overview of
Activities

May 2015

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Table of Contents

1. Agenda Item 7a (Progress at Mine)
2. Agenda Item 7b (Environmental Projects/Activities)
3. Agenda Item 7c (Environmental monitoring performance)
4. Agenda Item 7d (Community complaints)
5. Agenda Item 7e (Other matters)



1. Progress at the Mine

Mining 1st Quarter 2015

- Waste BCM 2,891,000 BCM
- Coal tonnes 415,000 tonnes
- Total BCM 3,188,000 BCM

2. Environmental Projects/Activities

Management Area	Project	Status
Reporting	<ul style="list-style-type: none"> • 2015 EPBC Commonwealth Consent Annual Compliance Report • EPA Air Emissions Inventory 	<ul style="list-style-type: none"> • Completed and submitted to Commonwealth Department of the Environment (DotE). • Submitted to EPA in February 2015
Environmental Management Plans	Review following approval of project modification	<ul style="list-style-type: none"> • Approval for 2014 reviews of EMP's received from NSW Department of Planning & Environment (DP&E). • Following approval of the DEP Modification DCPL is now reviewing/revising all EMP's and intend to submit in the next quarter..
Air Quality	<ul style="list-style-type: none"> •Pollution Reduction Programs •Air Emissions Inventory •Real-time dust management 	<ul style="list-style-type: none"> • No change • EPA Air Emissions Inventory for 2013 completed and submitted in February 2015. • One alarm received during the quarter, no operations were occurring at the time. Generally hazy conditions were present due to a southerly change.
Biodiversity	Year 3 offset area deliverables	<ul style="list-style-type: none"> • Works now commencing on Year 3 deliverables. New works since last CCC include: <ul style="list-style-type: none"> - Nest box monitoring ongoing; - weeds management program finalised in April and will continue next Spring; - maintenance and slashing of offset access tracks; - Plans commenced for re-vegetation trials in select areas, works to occur during Winter and Spring.
Blast	Routine	<ul style="list-style-type: none"> • No exceedances of licence criteria during the quarter. One blast above 115dB(L) on 18-Oct-14, total remains below 5% for the reporting period (commenced 4-Sep-14).
Bushfire Management	Bushfire Management	<ul style="list-style-type: none"> • RFS visited site with Alan Andrews to discuss a bushfire reduction burning plan in late 2014 •Planning is continuing for hazard reduction burning around ML's and offset areas during Winter 2015.

2. Environmental Projects/Activities – cont.

Management Area	Project	Status
Noise	<ul style="list-style-type: none"> • Routine Monitoring • Mobile Plant Monitoring • Real-Time Noise Management • Evaporative Sprays 	<ul style="list-style-type: none"> • Routine quarterly monitoring of operations and train noise completed February 2015. Additional monitoring included in Wards River and Mill Creek. Report available on Duralie Coal website. Next scheduled in April. • Annual sound power level monitoring completed on mobile plant in March 2015 • Real-time noise monitoring profiles continue to be monitored and generally indicate no exceedence of the performance criteria due to mining operations. No management alarms received. • Planning for long-term positioning of evaporative fans in progress. • Report prepared on the potential impacts of evaporative fan use on the Karuah Catchment and an operational protocol developed.
Surface Water	<ul style="list-style-type: none"> • Routine monitoring • Ecotoxicity monitoring • Macro-invertebrates Monitoring • Irrigation Area Monitoring 	<ul style="list-style-type: none"> • Several rainfall events occurred during the quarter and all monitoring was completed. • Ecotoxicity results received and continue to demonstrate no impacts due to mine operation and surface water management practices. • Macro-invertebrates monitoring completed in February 2015 and continues to indicate no adverse impacts on the aquatic ecosystem due to mine operation. • Annual monitoring completed in March 2015. Final report yet to be received.
Groundwater	Routine monitoring	<ul style="list-style-type: none"> • Routine monitoring continued.
Giant Barred Frog	2014/15 survey	<ul style="list-style-type: none"> • 2014/15 program completed in February 2015. Initial results from 2014/15 surveys indicate good survival rates and high number of juveniles from the 2013/14 breeding season. Final report is yet to be received and will be include in the Annual Review.
Rehabilitation	<ul style="list-style-type: none"> • Waste Dumps, Southern Waste Emplacement • Annual monitoring 	<ul style="list-style-type: none"> • Bulk shaping of approx. 5ha on the southern waste has been completed. • Good growth observed in establishing rehabilitation areas 2 years old. • Rehabilitation monitoring was completed in December, report not yet finalised.

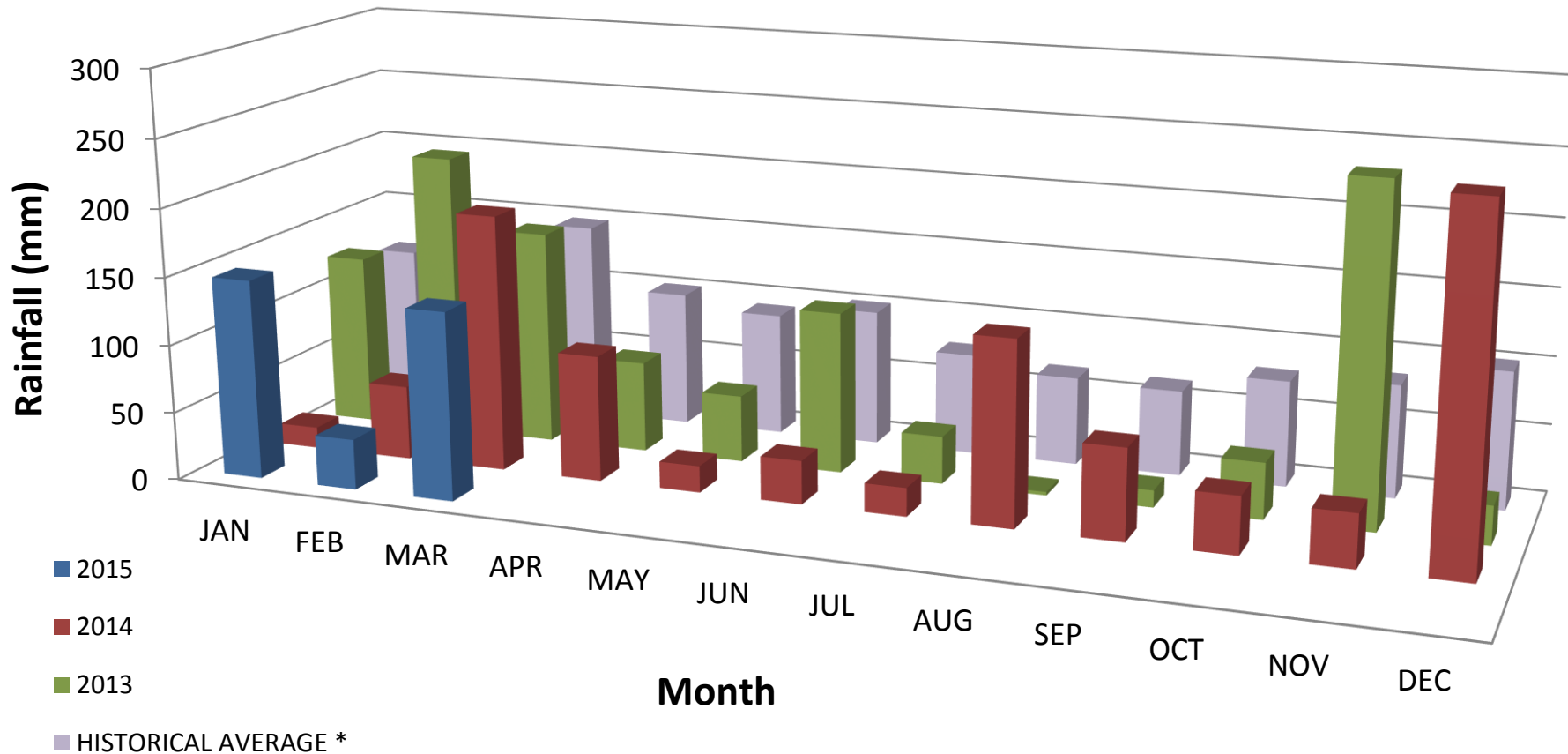
3. Environmental Monitoring Performance

1. Rainfall
2. Surface Water
 - a) Total Suspended Solids
 - b) pH
 - c) Electrical Conductivity
3. Air Quality
 - a) Dust Deposition
 - b) High Volume Air Sampler
 - c) High Volume Air Sampler-Rolling Average
4. Blasting



Rainfall

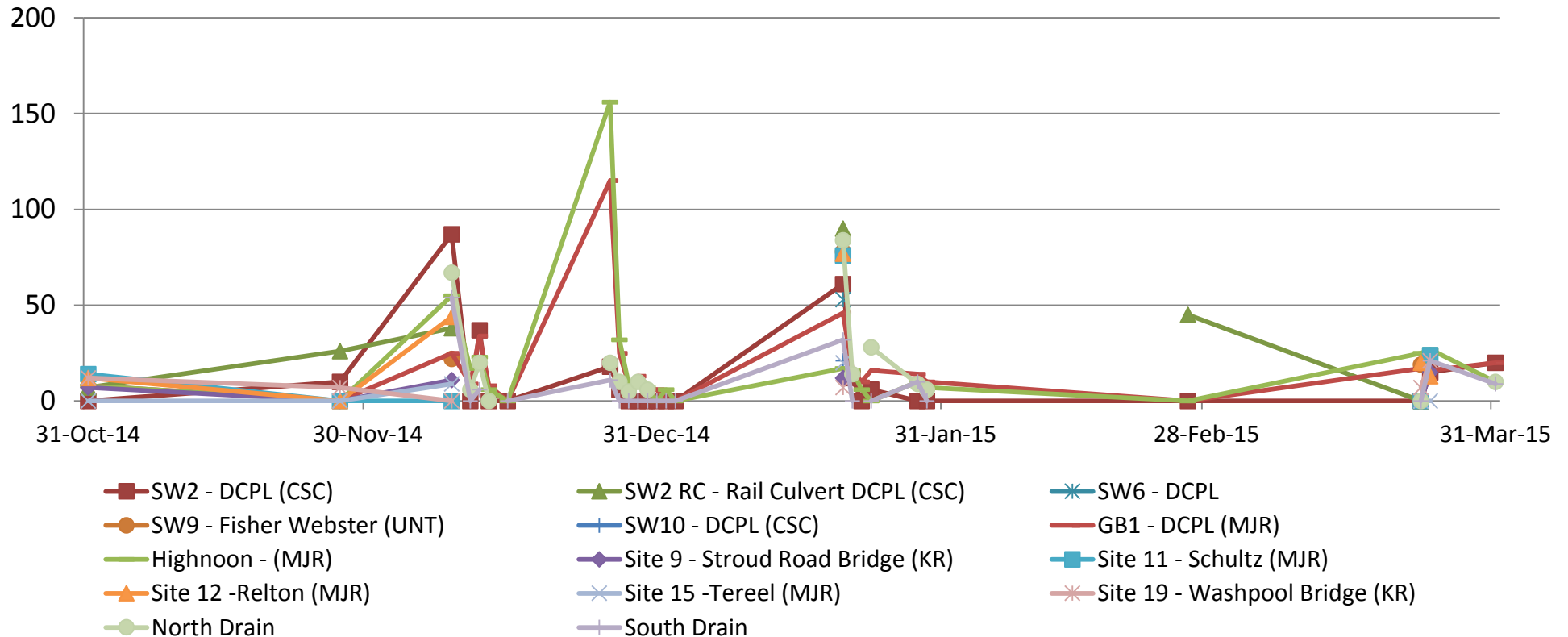
Duralie Mine Site - Monthly Rainfall



- 2014 Annual Total: 963.8mm
- Average rainfall for Q1 2015

Surface Water – Total Suspended Solids

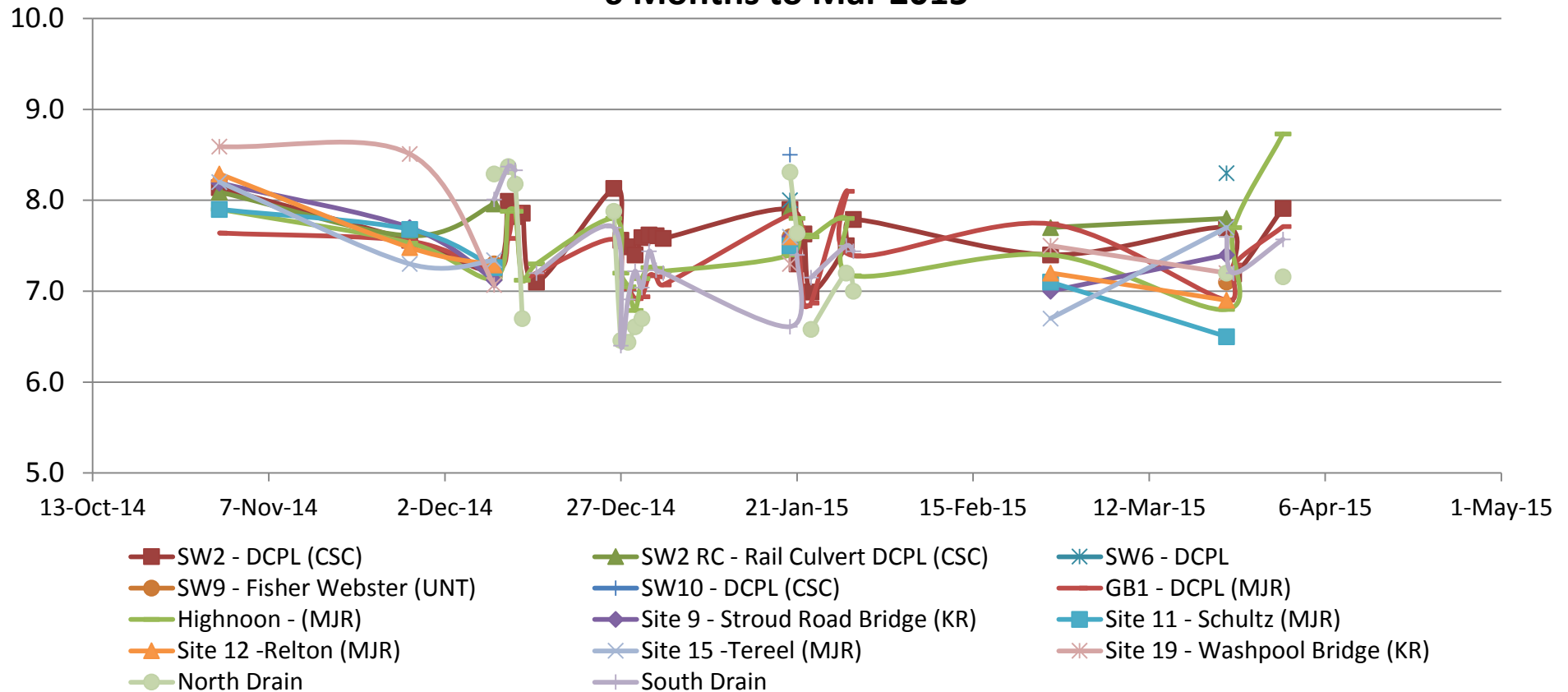
Duralie Surface Water Monitoring - TSS (mg/L)
6 Months to Mar 2015



- All sites returned generally low TSS. Highest results occurred on 26-Dec-14 both up and down stream (GB1 and Highnoon) of the operations following heavy rainfall.
- Gaps indicate no flow

Surface Water - pH

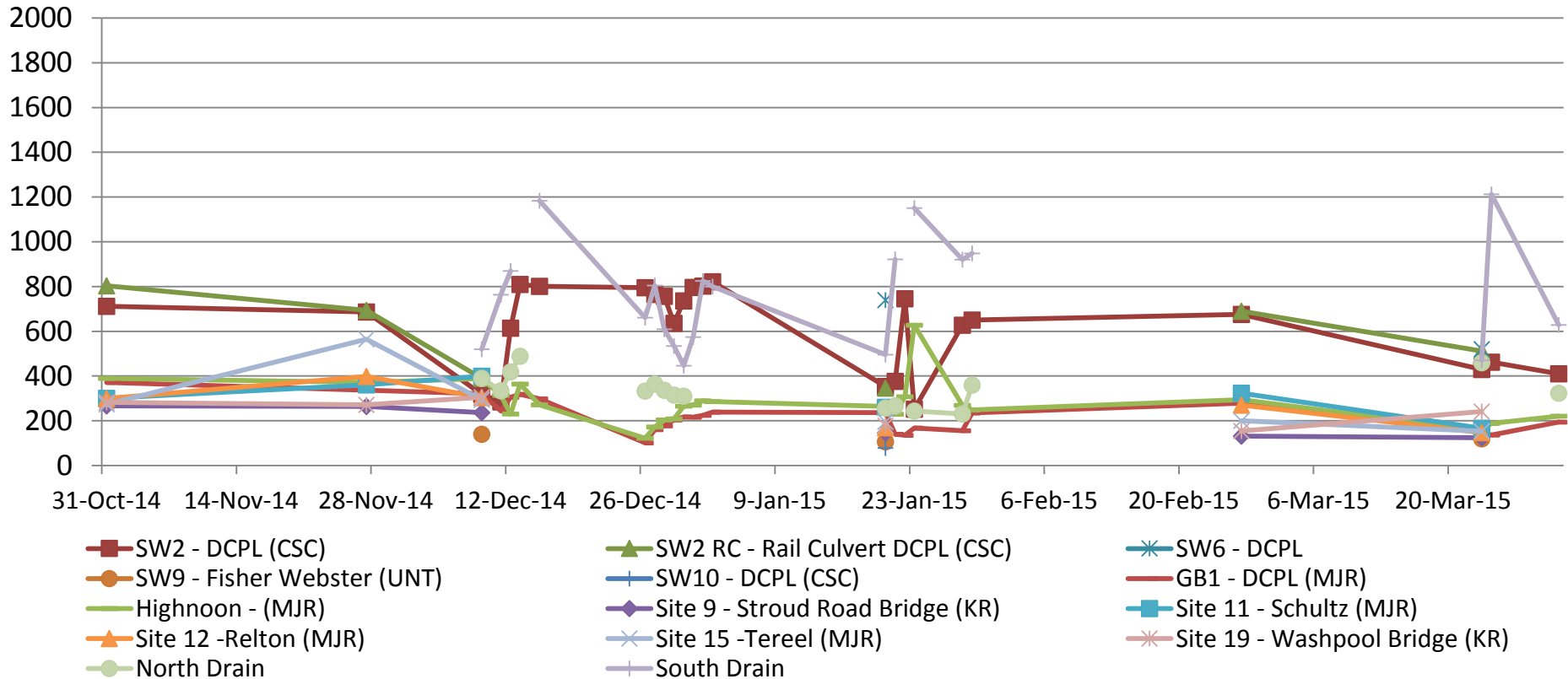
Duralie Surface Water Monitoring - pH 6 Months to Mar 2015



- All sites generally within ANZECC Guideline range.
- No obvious trending toward ANZECC Guideline limits
- Gaps indicate no flow

Surface Water – Electrical Conductivity

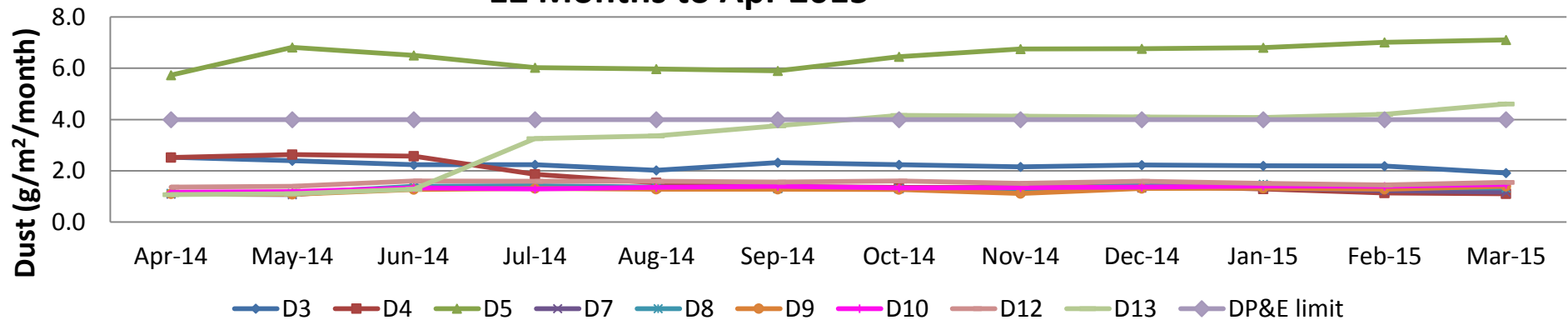
Duralie Surface Water Monitoring - EC ($\mu\text{S}/\text{cm}$)
6 Months to Mar 2015



- Gaps indicate no flow
- Highest EC levels recorded in the South Drain on 24-Mar-15 as the flow receded. When EC level is above 1326uS/cm in the South Drain flow is diverted to the Main Water Dam.

Air Quality – Dust Deposition

Duralie Dust Deposition - Annual Rolling Average 12 Months to Apr 2015



- Apr-14** D4- 4.4- Medium/Heavy - 10% dirt, <1% coal, 60% insects, 30% vegetation
- D5- 27.5 Very Heavy - 10% dirt, <1% coal, 50% insects, 10% vegetation, 30% polysaccharide slime.
- May-14** D5- 15.3- Very Heavy - 45% dirt, <1% coal, 10% insects, 15% vegetation, 30% polysaccharide slime.
- Jun-14** D5 - 7.4 - Very Heavy - 50% dirt, 5% coal, 10% insects, 5% vegetation, 30% polysaccharide slime
- Jul-14** D13 – 24.0 -Very Heavy - 70% dirt, <1% coal, 10% insects, <1% vegetation, 20% polysaccharide slime
- Sep-14** D3- 4.3 -Heavy- 40% Minerals, 10% Vegetation, 10% Insects, 40% Other. D13– 5.5- Heavy- 20% Minerals, 10% Vegetation, 30% Insects, 40% Other.
- Oct-14** D13 – 5.9 - Very Heavy 40% minerals 10% Vegetation 10% Insects 40% Other
- Nov-14** D5 – 5.6 - 50% minerals, 0% coal, 10% veg, 20% insects, 20% other contamination
- Dec-14** D8 – 5.5 -Very heavy. 20% Minerals. 0% Coal. 10% Vegetation. 0% Insects. 70% Contamination. D9 -4.2 - Heavy - 40% Minerals, 0% Coal, 20% Vegetation, 10% Insects, 30% Contamination.
- Feb-15** D5- Heavy - 50% Dirt, 0% Coal, 0% Vegetation, 10% Insects, 40% Polysaccharide slime
- Mar-15** D13 - 20% Dirt 0% Coal 10% Vegetation, 30% Insects, 40% Polysaccharide slime.

Guide to Descriptions used by Laboratory

Coal: Black sharp angled grains with glossy conchoidal fractures or dull with cellular features.

Dirt/Minerals: Subhedral to euhedral crystalline grains including fine sand, clay and other fine mineral particulates.

Insects: Whole insects such as spiders, ants, moths or outer parts of insects including wings, legs and exoskeletons.

Vegetation: Plant debris and algae including trichomes, decomposed organic matter and charred particulates showing characteristic cellular plant structures.

Polysaccharide Slime: Slimy gelatinous material including decomposed soft body parts of insects and vegetation.

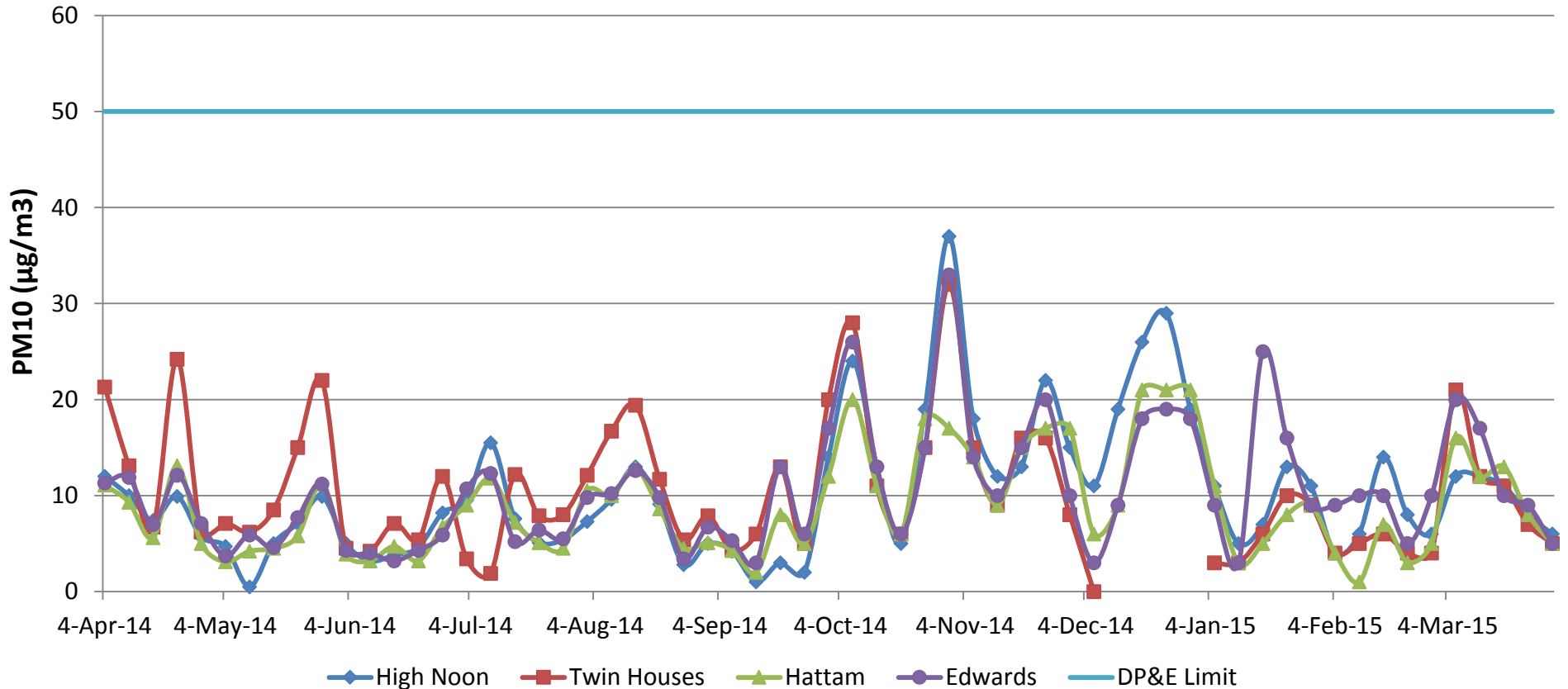
Copper Sludge: Blue-green subhedral to euhedral crystalline salts, commonly precipitated from the copper sulphate algicide solution.

Contamination: Gelatinous material such as bird droppings



Air Quality – High Volume Air Sampler

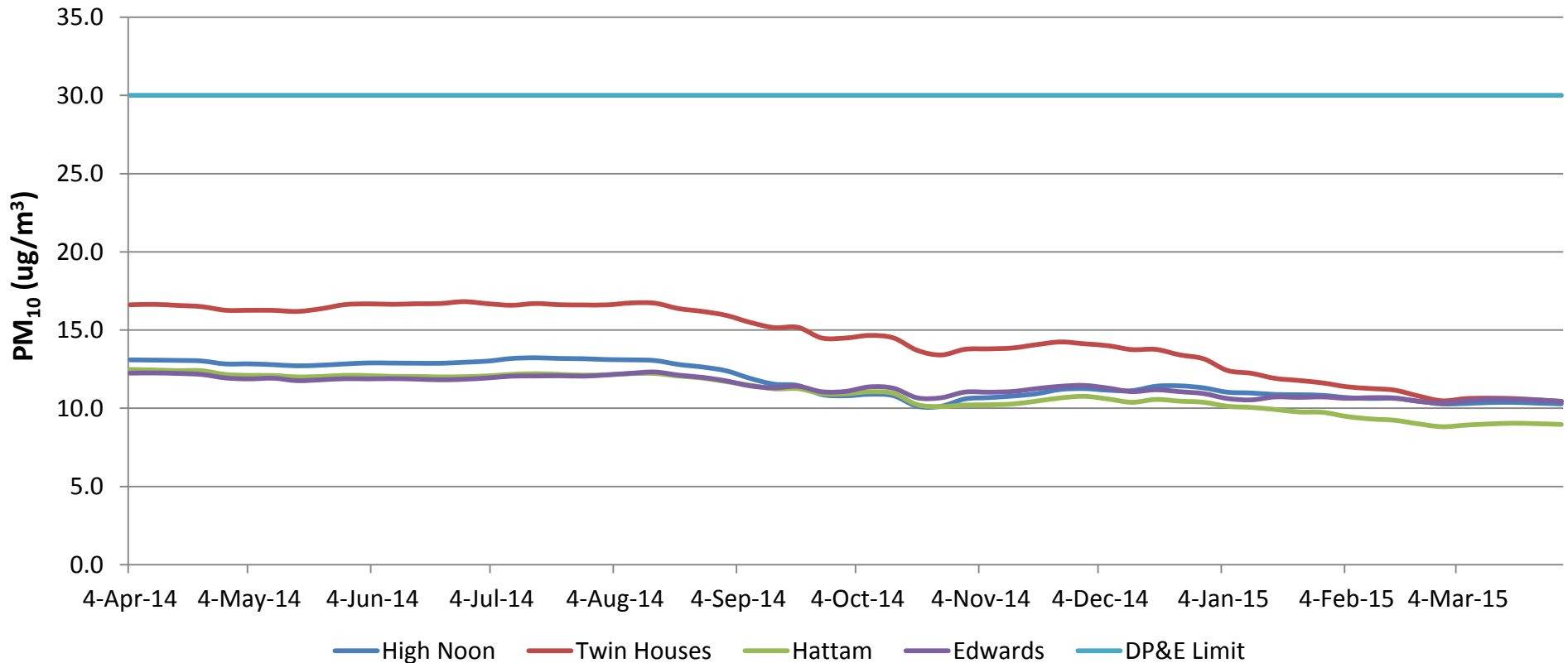
Duralie HVAS Monitoring (PM10) 12 Months to Apr 2015



• All sites below DP&E limit.

Air Quality – HVAS Rolling Average

Duralie HVAS Monitoring (PM₁₀) Annual Rolling Average - 12 Months to Apr 2015



• All site averages well below DP&E Limit

Blasting

Date	Time	Schultz (AB1)		Fisher-Webster (AAAB3)		Moylan (AAAB4)		Weismantel Inn		Overpressure Site Exceedance ¹	Overpressure "Cumulative Exceedance" ¹	Ground Vibration Site Exceedance ¹	Ground Vibration "Cumulative Exceedance" ¹	Monitored Blasts ¹	Fume Rating
		24hr	mm/s	dBL	mm/s	dBL	mm/s	dBL	mm/s	dBL	%		%		
08-Jan-15	12:43:00	0.29	84.2	0.43	89	0.78	103.5	1.76		3.3%	1	0.0%	0	30	Nil
14-Jan-15	12:45:00	<0.22	<110.0	0.57	89	0.62	96.6	0.96		3.2%	1	0.0%	0	31	Nil
21-Jan-15	12:52:00	<0.22	<110.0	0.3	109	0.32	106.1	0.74		3.1%	1	0.0%	0	32	Nil
30-Jan-15	12:41:00	0.44	100.5	0.62	105.3	0.79	104.7	2.86		3.0%	1	0.0%	0	33	Nil
06-Feb-15	13:16:00	<0.22	<110.0	0.32	102.1	0.56	108.1	2.11		2.9%	1	0.0%	0	34	Nil
10-Feb-15	12:43:00	<0.22	<110.0	<0.22	<110.0	0.28	100.4	0.63		2.9%	1	0.0%	0	35	Nil
13-Feb-15	16:39:00	0.28	90.2	0.43	105.3	0.52	110.2	1.53		2.8%	1	0.0%	0	36	Nil
17-Feb-15	12:42:00	<0.22	<110.0	<0.22	<110.0	0.65	108.1	5.67		2.7%	1	0.0%	0	37	Nil
19-Feb-15	12:37:00	<0.22	<110.0	<0.22	<110.0	<0.22	<110.0	<0.22		2.6%	1	0.0%	0	38	1A
25-Feb-15	12:43:00	<0.22	<110.0	<0.22	<110.0	0.51	108.4	1.84		2.6%	1	0.0%	0	39	2B
03-Mar-15	12:48:00	0.3	87.7	0.38	97	0.4	95.6	1.03		2.5%	1	0.0%	0	40	Nil
04-Mar-15	12:35:00	<0.22	<110.0	<0.22	<110.0	0.25	99.8	0.99		2.4%	1	0.0%	0	41	Nil
10-Mar-15	12:44:00	<0.22	<110.0	0.32	105	0.29	103.9	1.13		2.4%	1	0.0%	0	42	1A
20-Mar-15	13:56:00	0.34	87.7	0.57	93.9	0.5	103.1	1.46		2.3%	1	0.0%	0	43	Nil
27-Mar-15	16:38:00	<0.22	<110.0	<0.22	<110.0	0.28	101.6	0.28		2.3%	1	0.0%	0	44	Nil
01-Apr-15	12:42:00	<0.22	<110.0	0.3	101.1	0.4	101.6	0.86		2.2%	1	0.0%	0	45	Nil
13-Apr-15	12:36:00	<0.22	<110.0	0.41	95.1	0.53	103.5	1.34		2.2%	1	0.0%	0	46	Nil

•Note: Blast Compliance: No more than 5% of total blasts for annual monitoring period to exceed an overpressure of 115 dBL or ground vibration of 5 mm/s. No blast is to exceed an overpressure of 120 dBL or ground vibration of 10 mm/s.

• Reporting period re-started 04-Sep-2014.

4. Community Complaints

Duralie Complaint Summary

Period: 1/1/15 - 31/3/15

Period: 3 Months

Total No. of Complaints: 19 (13 noise, 4 blast, 2 train noise)

Total No. of Complainants: 9

Time/Date of Complaint	Complainant Location	Method of Complaint	Nature of Complaint	Outcome
13:00hrs 8/01/2014	Approx. 2.6km SW of blast	Direct to Mobile	Blast and vibration	DCPL advised blast within consent criteria limits at approved blast monitors. Advised of right to property inspection which was declined by the complainant. Considerations for additional monitoring at the residence will be addressed. Complainant commented on increase in rabbits numbers in the area, they were advised of mines feral animal control program. A blast monitor is currently being installed.
13:30hrs 19/01/15	Wards River village	Direct to phone via EPA	Mine Noise	Complaint reported via EPA regarding mine noise. EPA requested a response which was provided regarding operational activities, weather conditions and the real-time noise logs. Normal operational conditions noted. Real-time noise profile during the evening and night was very low. Real-time audio files indicate dominant noise insects and birds, very minor mine noise audible occasionally.
21:39hrs 29/01/15	Wards River Village	Community Hotline	Mine Noise	Complainant stated excessive noise from the Duralie Mine. The OCE received complaint and inspected operations promptly. No excessive noise, and dig and haul operations low in pit. Real-time noise profile was below the alarm level (42dBA) during entire night shift. A strong temperature inversion was present. Real-time audio files indicated dominant noise insects and frogs, traffic, very minor background mine noise audible. Response call to complainant who advised noise improved after 10pm.
13:30hrs 30/01/15	Wards River Village	Community Hotline and Via EPA	Mine Noise	Complainant stated excessive noise and train horn use from the shuttle train. A response call was made to the complainant and a meeting arranged and held to discuss the above matters. A response was also provided to the EPA.
13:10hrs 30/01/15	Approx. 3km N of operation.	Direct call to AA mobile	Blasting vibration, dust and smell.	Complaint received regarding blast shaking house and "smell of sulphur". DCPL called complainant and advised the shot details with results at the neighbouring property monitor of 105.3dB and low ground vibration (0.62mm/s). Two blast videos reviewed indicated no visible fume and low dust levels including review by shotfirer. An offer to visit the resident was put forward. It was agreed that Duralie would arrange a structural inspection by an independent consultant.
13:20hrs 30/01/15	Approx. 2.5km NNE of blast location to Residence	Direct to AA Mobile	Blasting vibration, dust and smell.	Complaint received regarding blast, smell, visual dust, noise and vibration from the shot. Initial contact was made with the complainant, after previous attempts, advising of results and review of blast video and shotfirer records. A meeting was arranged at the complainants property. Duralie representative provided details of the blast including the fume ranking and video of shot showing no fume and localised dust within the pit including process followed if fume is recorded. DCPL provided publically available fact sheets on blasting fume and offered to arrange a meeting with a blasting product specialist. Also advised complainant an independent engineer could undertake an inspection if requested.

4. Community Complaints

Time/Date of Complaint	Complainant Location	Method of Complaint	Nature of Complaint	Outcome
18:24hrs 30/01/15	Approx. 1.5km NNE of operation.	Email to MP	Blast vibration	Complaint regarding blast vibration with a request for blast results. Email response sent to the complainant advising blast results and compliance limits as requested by complainant. The blast was compliant within approval conditions.
7:27hrs 04/02/15	Wards River Village	SMS direct to mobile	Mine noise	Complaint received regarding mine noise. DCPL contacted complaint, explained operational locations of equipment including recent noise monitoring in Wards River. Provided review of meteorological conditions and offered visit to residence including provision of results if desired. Details reported to operations. Attended noise monitoring is undertaken in proximity to complainants residence showing no exceedance of noise criteria.
19:57hrs 17/02/15	Wards River Village	Community hotline	Train noise	Complaint received regarding the use of the train horn through a rail crossing. Meeting was agreed to be arranged with complainant to discuss recent monitoring & noise loggers as part of routine monitoring at Wards River. Following confirmation, Aurizon horn was activated for 2.5 sec for safety purposes in accordance with operational protocols. A meeting was scheduled and held in March with Aurizon, Yancoal representative and Pacific National at Wards River with the resident to address concern regarding train horn use.
11:50hrs 28/02/15	Approx. 5km SE of mining activities	Community hotline	Evaporative fan noise	Complaint received regarding evaporative fan noise during the night and additional complaint received the following morning at 8:30am. SMS received by the OCE, operations inspected immediately, no mining operations at high dump levels. Evaporators were the only elevated noise source on the waste emplacement and these were promptly shutdown at 12:10am with fans near AD2 previously turned off at 10pm. There were no mining operations on Sunday. Complainant raised a number of historical items and recent correspondence regarding noise mitigation request which was declined. Duralie representative offered a visit to the resident to discuss both the letter, review undertaken and management of the fans including attenuation, bunding and monitoring. Meeting rescheduled by complainant. Real-time noise system reviewed and below criteria levels. Complaint advised to operations.
7/03/2015	Approx. 5km SE of mining activities	Community hotline	Noise	Complaint was in relation to the previous weekend (Saturday 28 Feb) at approximately 2am and noise level from the mine. The complainant advised that meteorological conditions can contribute. Complainant advised inversions were monitored and DCPL explained current real time noise monitoring and recent noise assessment of Duralie Modification. Explained evaporative fans were off at 2am and trucks running to top dump from digger 19 (down low in pit). Advised additional information can be provided, monitoring indicates compliance, although may be audible under certain weather conditions.
23:33hrs 9/03/15	Approx. 5km SE of mining activities	Community hotline	Noise	Complaint received regarding 'intrusive mine noise'. Complainant contacted and advised of operations and OCE review of operations. A visit by General Manager was offered following an earlier enquiry. Also offered further noise monitoring at the residents location in addition to the previous years of historical monitoring undertaken, however resident declined. Weather conditions and noise data reviewed with no exceedance of consent criteria. Operations responded to SMS and were also notified.

4. Community Complaints

Time/Date of Complaint	Complainant Location	Method of Complaint	Nature of Complaint	Outcome
00:30hrs 7/03/15	Wards River	Email to MP, via EPA	Mine Noise	Response sent to the EPA regarding noise complaint including information on operations, weather conditions and real-time noise monitoring.
23:00 hrs 9/03/15	Wards River	Email to MP, via EPA	Mine Noise	Response sent to the EPA regarding noise complaint including information on operations, weather conditions and real-time noise monitoring.
8:00 hrs 11/03/15	Wards River Village	Direct to Mobile	Train noise	Complaint received regarding extended use of train horn of Aurizon shuttle train. DCPL indicated would contact the shuttle train to verify train given various rail users (i.e. freight, passenger, coal trains). Indicated would contact Aurizon directly and schedule a meeting to ensure Aurizon can respond accordingly. Aurizon contacted complainant on 11 March. A list of requested documents by the complainant was received via email. A meeting was scheduled and held with Aurizon, Yancoal representative and Pacific National at Wards River with the resident to respond to the train horn use.
00:44hrs 12/03/15	Approx. 5km SE of mining activities	Community hotline	Evaporative fan noise	Complainant contacted regarding evaporative fan complaint lodged through the hotline. Complainant expressed dissatisfaction regarding correspondence declining a request for noise mitigation subsidy at a proposed development. Further discussion was held between DCPL and complainant discussing historical and ongoing matters of concern. Addressed contents of letter and review undertaken into both letter and evaporative fan use. Additional monitoring conducted near the property evening 12th March, very low levels of audibility, wind direction towards monitoring location, moderate inversion conditions, train loading on loop and evaporative fans & equipment operating.
9:38hrs 15/03/15	4.5km NE of noise source	Community hotline	Evaporative fan noise	Contacted complainant who advised the evaporative fans were clearly audible on Sunday morning from 7am-9:30am. DCPL advised start and stop times for the evaporative fans are adjusted moving into the cooler months together with efforts recently to start these fans later in the morning due to humidity. No trucks or excavator equipment was operating. Discussed control measures regarding the fans and noise levels.
10:04hrs 18/03/15	Approx. 5km SE of mining activities	Direct to Mobile	Evaporative fan noise	Complaint registered regarding evaporative fan noise reported to be intrusive. Evaporative fans were started at 8:30am and 8:40am respectively. Inversion data was reviewed from inversion monitoring towers, wind direction reviewed, and humidity levels suitable. Noise levels were within daytime consent criteria and no noise alarms received.
3:13hrs 20/03/15	Wards River Village	Community hotline	Mine Noise	Complainant advised noise from 2:40am to 3:20am sounded like 'revved up diesel engines'. DCPL advised reduced number of operating units and operations ceased at 3:30am. DCPL provided information on weather conditions and real-time noise data and advised these conditions would not typically enhance noise levels in the Wards River direction. No noise alarms triggered and within consent criteria.