

Stratford Coal CCC Meeting

Presentation –
Company Report &
Overview of Activities

February 2019

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Environment & Community Superintendent

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1. Progress at the Mine

Mining 4th Quarter 2018

- Waste BCM 1,242,000 BCM
- Stratford ROM Coal 187,000 tonnes (Includes Codam)
- Total CHPP product 91,000 tonnes (Includes Duralie)

*Mining in BRN continued during the quarter. Dayshift only.

*Mining in Avon North continued during the quarter. Day and evening shift.

*Reclaim from the Codam continued.

2. Environmental Reporting & Regulators

Management Area	Project	Status
Reporting	<ul style="list-style-type: none"> Yancoal Environmental Assurance Audit – Stratford & Duralie Annual Review 2018 	<ul style="list-style-type: none"> Yancoal runs a program of environmental assurance audits across its operations to assess the management of key environmental risks. The Stratford and Duralie sites were audited during February 2019. Audit reports are currently being prepared. The Stratford Mining Complex 2018 Annual Review is currently being prepared. The AR is due by the end of March 2019. Copies will be made available to the CCC.
Regulator	<ul style="list-style-type: none"> Stratford East Mining Lease Application Environmental Management Plans Mining Operations Plan & Rehabilitation Management Plan DPE Show Cause Notice – Ground Disturbance 	<ul style="list-style-type: none"> Assessment of the Stratford East MLA552 has been completed and the draft ML conditions have been accepted by SCPL. The ML is currently pending grant by the Minister. SCPL prepared revisions of the Environmental Management Plans to incorporate the Stratford East mining area. The EMPs were approved by DPE during October 2018. The revised plans are available on the Stratford Coal website. The revised MOP was submitted and provided for consultation during September 2018. DRG has granted conditional approval for the MOP in January 2019. The revised rehabilitation bond has been approved by DRG in January 2018. SCPL reported a ground disturbance incident to DPE in November 2018. Following a site inspection by DPE on 20 November 2018 the Department issued SCPL a Show Cause notice. SCPL has responded to this notice and is currently awaiting further advice from DPE.

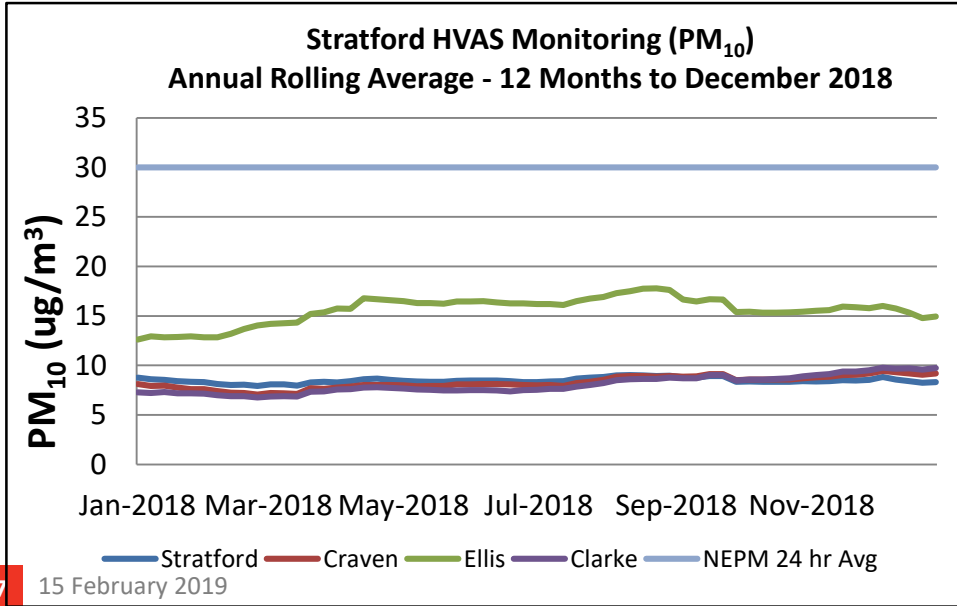
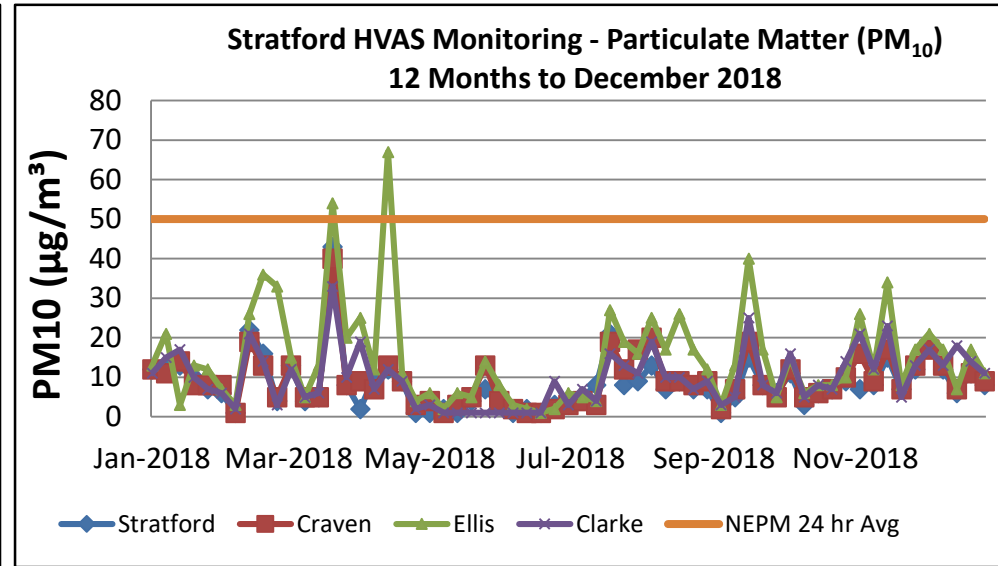
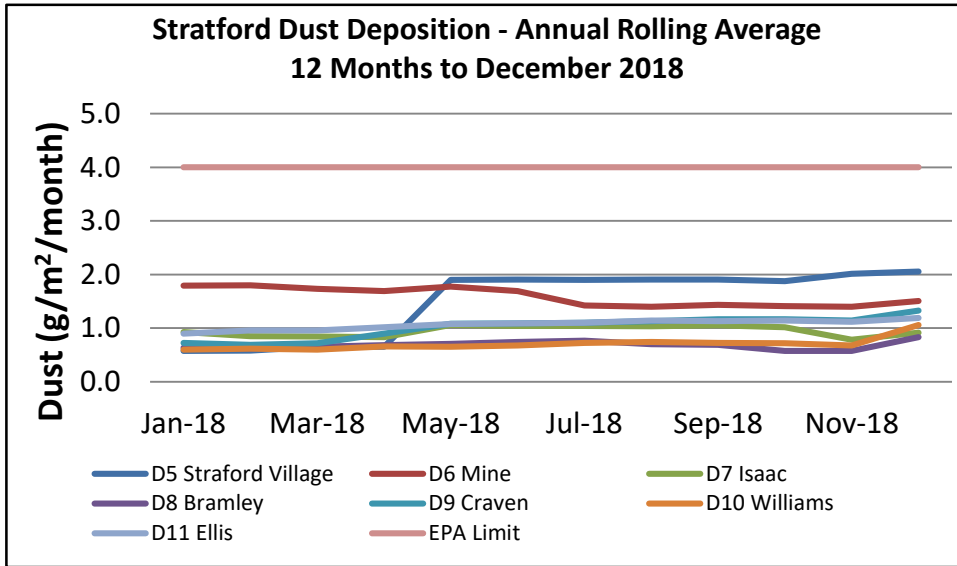
3. Environmental Management Plans & Monitoring

- a) Air Quality Management
- b) Blast Management
- c) Noise Management
- d) Water Management
- e) Rehabilitation Management
- f) Biodiversity Management

3a. Air Quality Management

Management Area	Project	Status
Air quality monitoring	<ul style="list-style-type: none">Real-time air quality monitoring	<ul style="list-style-type: none">The TEOM monitors in Stratford and Craven villages continue to operate.SCPL has established alarming and a response protocol for the real-time dust monitoring system.During the period all TEOM alarms related to either bushfire smoke or poor region air quality generally from dry, windy conditions.

3a. Air Quality Management



- All sites below DP&E limit. Typically low results during winter and higher during spring/summer.
- High results across all monitors on 20-Mar-18 due to hazy conditions across valley following a southerly change and prolonged dry weather.
- Flat trend over previous 12 months.
- HVAS results provide more reliable data compared to dust deposition results and should be referred to when interpreting dust emissions.



3b. Blast Management

Management Area	Project	Status
Blasting	<ul style="list-style-type: none">• Blast Monitoring• Blast Results	<ul style="list-style-type: none">• Blasting activities recommenced at Stratford in September 2018.• One blast exceeded 115dB(L) and no blasts exceeded 5mm/s during the quarter.• No blasts recorded any level of fume
	<ul style="list-style-type: none">• Blasting Preparations	<ul style="list-style-type: none">• A Road Closure management plan has been prepared and approved by MidCoast Council for road closures during blasting along Wenham Cox Rd.• An updated blast notifications register has been prepared.• The blast hotline has been re-established.
Building Inspections	<ul style="list-style-type: none">• Baseline condition inspections	<ul style="list-style-type: none">• No further building inspections have been required.

3b. Blast Management

Location	Date	Time	Isaac (B1) 7432		Ex-Judge (B2) 7441		Atkins (B6) 7434		Woodford 7422		Clarke (B5) (Mine-owned) 7433		Site Exceedanc e ¹	"Cumulative Exceedance " 1	Monitored Blasts ¹
			24hr	mm/s	dBL	mm/s	dBL	mm/s	dBL	mm/s	dBL	mm/s	dBL	%	
Avon North Stage 1	1/11/2018	12:04:00	<0.24	<114.0	<0.24	<114.0	0.31	100.90	0.33	84.20	2.51	111.20	12.5%	1	8
Avon North Stage 2	2/11/2018	13:13:00	<0.24	<114.0	<0.24	<114.0	0.35	102.4	<0.24	<114.0	0.27	104.10	11.1%	1	9
Avon North Stage 1	7/11/2018	10:45:00	<0.24	<114	<0.24	<114	<0.24	<114	<0.24	<114	0.78	112.00	10.0%	1	10
Avon North Stage 1	7/11/2018	12:52:00	<0.24	<114	<0.24	<114	<0.24	<114	<0.24	<114	1.75	111.80	9.1%	1	11
BRN	9/11/2018	13:17:00	<0.24	<114	<0.24	<114	0.37	100.90	<0.24	<114	<0.24	<114	8.3%	1	12
Avon North Stage 1	15/11/2018	11:59:00	0.23	95.20	<0.24	<114	0.32	110.40	0.38	99.80	1.44	117.70	7.7%	1	13
Avon North Stage 1	22/11/2018	12:06:00	<0.24	<114	<0.24	<114	<0.24	<114	<0.24	<114	1.00	115.20	7.1%	1	14
Avon North Stage 1	28/11/2018	11:55:00	<0.25	<115	<0.25	<115	0.27	99.1	<0.25	<115	0.80	110.80	6.7%	1	15
Avon North Stage 1	5/12/2018	12:00:00	<0.25	<115	<0.25	<115	<0.25	<115	<0.25	<115	<0.25	<115	6.3%	1	16
Avon North Stage 1	20/12/2018	9:12:00	<0.25	<115	<0.25	<115	<0.25	<115	<0.25	<115	2.17	113.1	5.9%	1	17
Avon North Stage 1	4/01/2019	12:19:00	0.25	82.10	<0.25	<115	0.33	97.60	0.32	84.00	2.16	110.50	5.6%	1	18
Avon North Stage 1	10/01/2019	12:04:00	<0.25	<115	<0.25	<115	<0.25	<115	0.39	84.2	1.02	110.1	5.3%	1	19
Avon North Stage 1	17/01/2019	12:13:00	<0.25	<115	0.25	80.8	0.31	100.0	0.35	90.3	1.48	111.1	5.0%	1	20
Avon North Stage 1	23/10/2019	12:05:00	<0.25	<115	<0.25	<115	0.25	95.9	0.39	92.2	0.86	107.7	4.8%	1	21
BRN	25/01/2019	13:08:05	<0.25	<115	<0.25	<115	0.33	82.8	<0.25	<115	0.3	95.1	4.5%	1	22
BRN	1/02/2019	12:19:00	0.25	85.7	0.24	80.8	0.28	104.4	0.3	90.3	1.2	111.2	4.3%	1	23
BRN	5/02/2019	13:42:00	<0.24	<114	<0.24	<114	0.46	107.7	<0.24	<114	0.3	92.6	4.2%	1	24
Avon North Stage 1	8/02/2019	12:12:00	0.25	102.1	0.25	102.7	0.42	106.3	0.4	84.2	2.7	123.6	8.0%	2	25

- 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.
- Note: Where no trigger is recorded the results indicate <0.22mm/s and <110.0dBL corresponding to the blast monitor settings.
- Note: Blast results for Clarke are extrapolated to the next nearest non-mined owned residence.

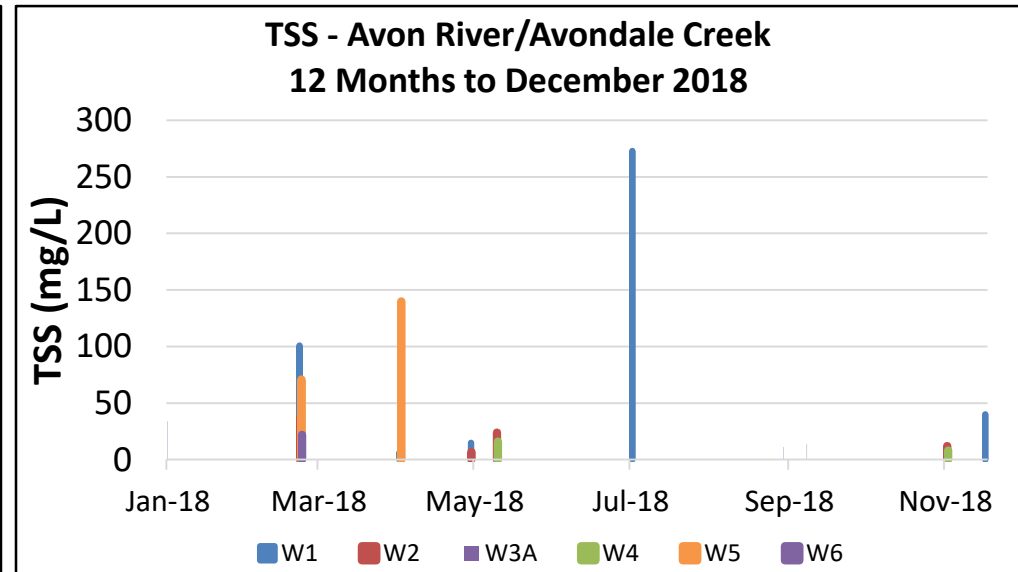
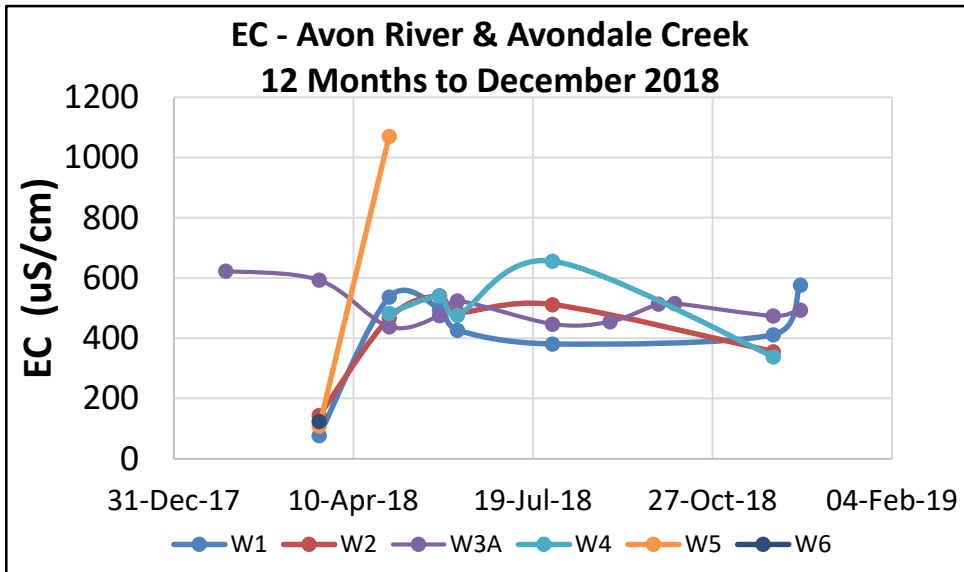
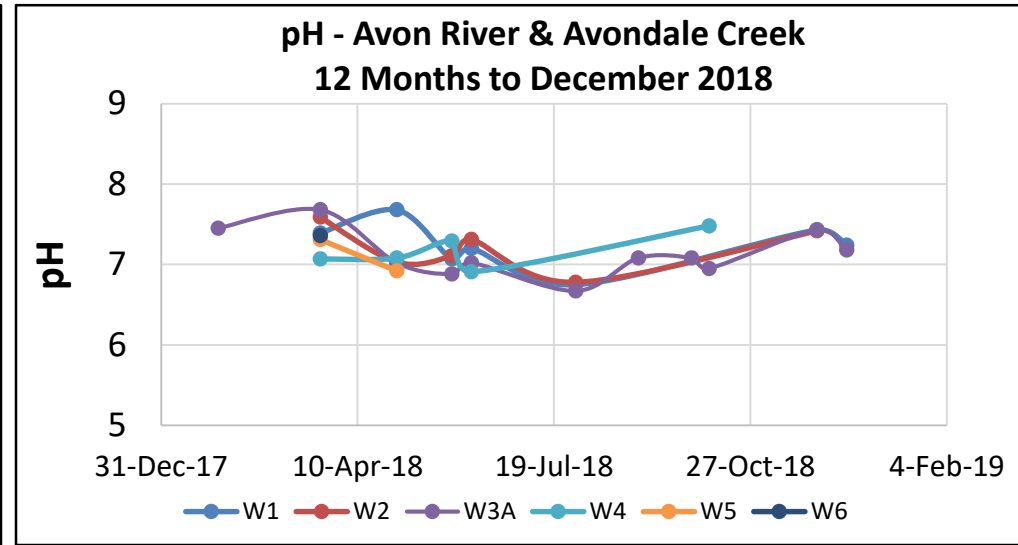
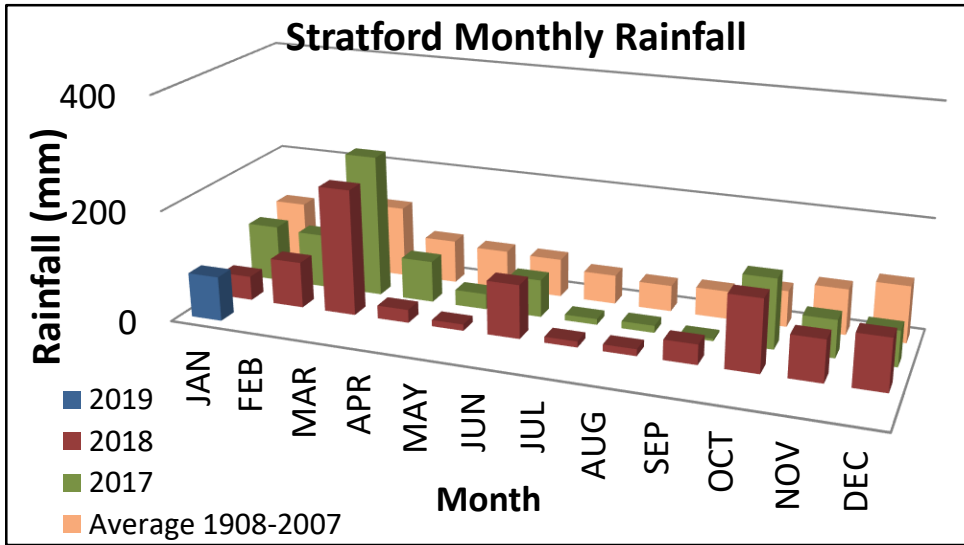
3c. Noise Management

Management Area	Project	Status
Monitoring	<ul style="list-style-type: none">• Monthly Noise Survey	<ul style="list-style-type: none">• Monthly attended noise monitoring was undertaken during Q4 2018.• No non-compliant results were recorded during the surveys. Reports will be made available on the Stratford Coal website. The next monitoring is scheduled in February 2019.
Real-Time Noise	<ul style="list-style-type: none">• Real-Time Noise System	<ul style="list-style-type: none">• Real-time noise monitors continue to operate near Stratford village, Craven Village and the Clarke property.• The integrated real-time noise management system is operational. The system analyses monitoring data from the noise units, the weather station and the inversion towers and records times when either the noise criteria is likely to be exceeded or when noise enhancing weather conditions are present. The system will then provide alarms to staff to implement additional noise mitigation measures where required.

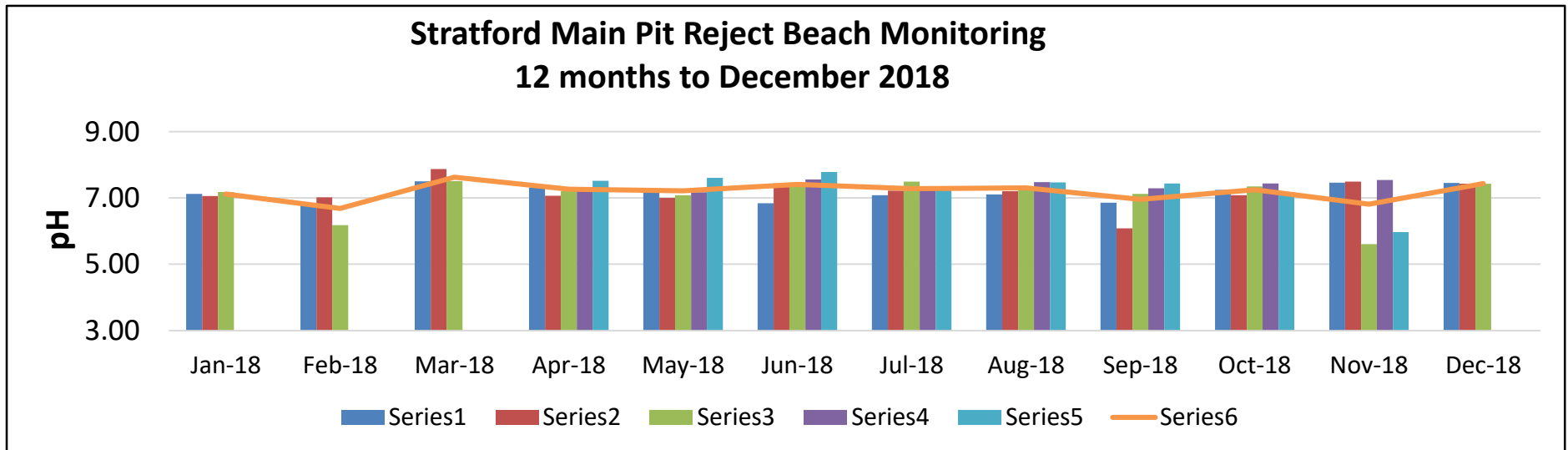
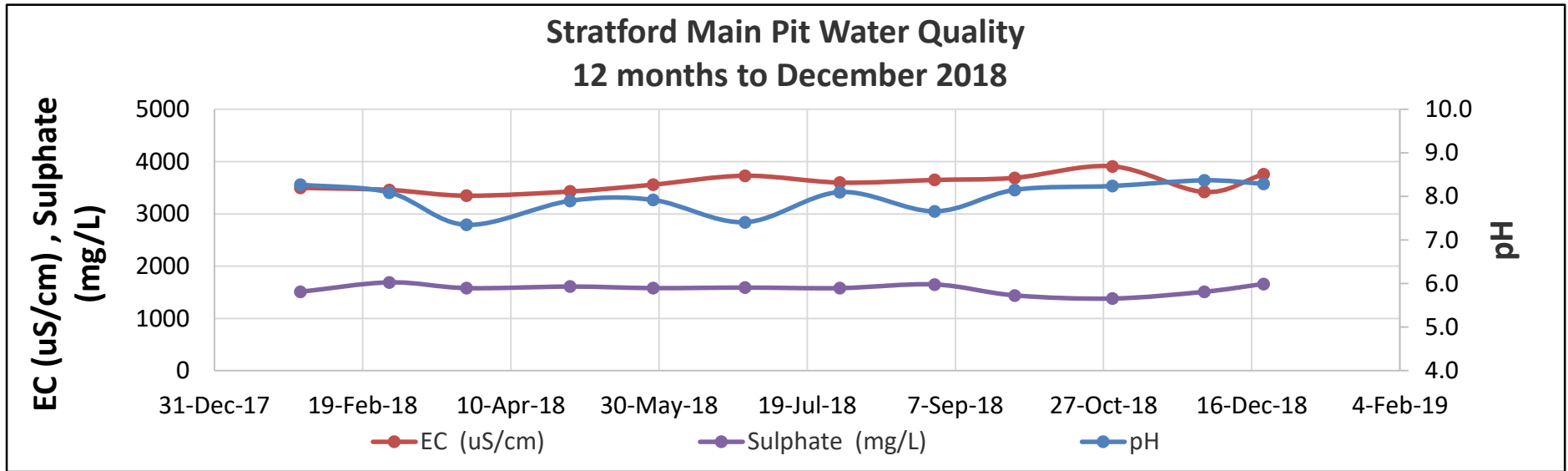
3d. Water Management

Management Area	Project	Status
Site Water Management	<ul style="list-style-type: none"> • Site Water Balance • Erosion and sediment control • Flood Modelling 	<ul style="list-style-type: none"> • The annual site water balance review is currently being prepared. A summary will be included in the Annual Review. • Erosion and sediment control infrastructure has been constructed for the Avon North boxcut and waste emplacement area. The Avon North Sediment dam has been completed. • Avon North eastern clean water drain construction commenced in February 2019. • Preparation of a revised flood model for the Avondale Creek has been completed. The flood model will guide the designs of water infrastructure for Avon North.
Surface Water Monitoring	<ul style="list-style-type: none"> • Routine monitoring 	<ul style="list-style-type: none"> • Sporadic and low rainfall conditions persisted through spring/summer 2018. • Routine water sampling continued. All results consistent with the SCM Environmental Assessment predictions. Generally “no flow” conditions have persisted across all sites.
Groundwater Monitoring	<ul style="list-style-type: none"> • Routine monitoring 	<ul style="list-style-type: none"> • Routine groundwater sampling continued. All results consistent with the SCM Environmental Assessment predictions.

3d. Water Management



3d. Water Management



3e. Rehabilitation Management

Management Area	Project	Status
Rehabilitated Waste Emplacements	<ul style="list-style-type: none">• Avon North visual bund• Avon North waste emplacement	<ul style="list-style-type: none">• Construction and rehabilitation of the Avon North visual bund along Wenham Cox Road has been finalised. The visual bund was seeded in October 2018. Rehabilitation was also completed along the Wenham Cox Road Diversion.• Bulk shaping of the Avon North waste emplacement has commenced focusing on areas with offsite visual impact. Planting is proposed in spring 2019 with native vegetation.
	Rehabilitation Maintenance	<ul style="list-style-type: none">• Slashing and fertilising has been undertaken on the codam pasture during November 2018.
Monitoring	<ul style="list-style-type: none">• Vegetation Monitoring - Ecosystem Function Analysis	<ul style="list-style-type: none">• Rehabilitation monitoring incorporating landscape function analysis and vegetation dynamics was undertaken in May 2018. The report is has been finalised and a summary will be included in the Annual Review.



Photo: Avon North visual screen rehabilitation, Dec 2018.

3f. Biodiversity Management

Management Area	Project	Status
Biodiversity Management Plan	<ul style="list-style-type: none"> • Long-term security • Conservation Bond 	<ul style="list-style-type: none"> • SCPL is required to secure the biodiversity offset lands in perpetuity. Public Positive Covenants and Restrictions on the Use of Land were prepared and submitted to DPE in December 2018. Following confirmation from DPE the documents will be lodged with LRS for processing. • A conservation bond has been prepared for the estimated cost of undertaking the management requirements for the biodiversity offset area. The conservation bond estimate was submitted to DPE in December 2018. DPE confirmed the sum of the bond estimate was satisfactory and a bank guarantee was lodged with DPE in February 2019.
Mining Lease	<ul style="list-style-type: none"> • Habitat Assessments • Vegetation Clearance • Topsoil Stripping 	<ul style="list-style-type: none"> • Habitat assessments have been undertaken in the Stratford East and Avon North proposed mining areas in advance of clearing. • Due to the delays with granting the Stratford East Mining Lease the mining sequence has been revised to bring Avon North forward and postpone Stratford East. • Clearing permits were prepared in preparation for works in the Avon North southern section. The clearing permits address the management of vegetation, fauna, heritage sites and topsoil. • Clearing commenced in February 2019. • Topsoil stripping has been completed for the Avon North boxcut area and the waste emplacement. Topsoil stripping has advanced into the Avon North southern section. All topsoil has been rehandled to topsoil stockpiles for future rehabilitation works.
Biodiversity Offset Area	<ul style="list-style-type: none"> • Revegetation Works 	<ul style="list-style-type: none"> • Preparation of native tree seed and tubestock for plantings in 2019 has been undertaken. In 2019 SCPL is planning for the planting of approximately 60,000 trees over 150 hectares along the Glen Road area. • Tubestock is progressing well and planting is proposed in April 2019.
Access & Livestock	<ul style="list-style-type: none"> • Signage • Fencing 	<ul style="list-style-type: none"> • Signage installation for the biodiversity conservation areas has been partially completed. • Work has commenced to replace and install boundary fencing for the biodiversity offset areas. Fencing completed near Wenham Cox Rd, Wheatleys Lane and Glen Rd.



3f. Biodiversity Management

Management Area	Project	Status
Squirrel Glider Management	<ul style="list-style-type: none"> Squirrel Glider Colony Surveys Squirrel Glider Home Range Surveys 	<ul style="list-style-type: none"> The initial surveys of the Squirrel Glider colonies was undertaken during December 2018. The monitoring involved the installation of 40 remote cameras over a 4 week period. Squirrel Gliders were identified in 5 separate locations. Squirrel Glider home range monitoring is currently being undertaken via a trapping and radio tracking program. 8 gliders from 4 colonies are currently being tracked to determine their home ranges. These studies will guide the ongoing management of glider populations.
Weed Management	<ul style="list-style-type: none"> Weed Spraying 	<ul style="list-style-type: none"> Weed spraying in the Stratford biodiversity areas commenced in November 2018. The initial focus is in the areas proposed for revegetation in 2019. The main target species are blackberry, wild tobacco, lantana, privet and GPG.
Pest Control	<ul style="list-style-type: none"> Wild Dog control program 	<ul style="list-style-type: none"> Wild dog and fox trapping is proposed to recommence in April 2019.



16 15 February 2019 Photo: Squirrel Glider camera monitoring, Dec 2018.

Photo: Squirrel Glider radio tracking, Feb 2019.



4. Community Complaints - Summary

Stratford Complaint Summary

Period: 1/10/2018 - 31/12/2018

Period: 3 Months

Total No. of Complaints: 1

Total No. of Complainants: 1

Date/Time of Complaint	Complainant Location	Method of Complaint	Nature of Complaint	Investigation/Outcome
6/11/2018 9:20hrs	Approx. 2.5km west of source	Direct to mobile.	Mine Noise	<p>Complaint: "Noise from Stratford Mine louder than normal between 8:00am to 9:00am. Mostly sounds like truck noise and dozer clatter from direction of BRN and Avon North"</p> <ul style="list-style-type: none">• Weather conditions: No inversion. Light NE wind.• Production: MP discussed noise complaint with BRN and Avon North OCEs at 9:30am. BRN haul fleet to RL30 dump. Dozers on pit floor. Avon North haul fleet running to low dump. Elevated works have been avoided during early morning hours.• MP called complainant at 11:00am, no answer. MP called again at 12pm and left a message with complainant's partner.• SCPL to continue implementing noise mitigation measures for mobile plant.

5. Community Programs

Management Area	Project	Status
Support Programs	Stratford Coal Community Support Program	<ul style="list-style-type: none">• The Stratford Coal Community Support Program for 2019 has now closed. Advertising was undertaken during December 2018 and applications closed at the end of January 2019.• SCPL received a very good response from many community organisations. All applications are currently being reviewed and SCPL aims to have the funding finalised by March 2019.
	<ul style="list-style-type: none">• Stratford Coal Education Support Fund	<ul style="list-style-type: none">• The Stratford Coal Education Support Fund for 2019 has now closed. Advertising was undertaken during December 2018 and applications closed at the end of January 2019.• The Education Support Fund Committee will review the applications and finalise the funding by February 2019.