

**MOOLARBEN COAL OPERATIONS - COMMUNITY CONSULTATIVE COMMITTEE
MEETING No. 54**

Date: Tuesday 15 September 2020
Time: 4:04pm
Location: Via Video and Teleconference
Attendance: Independent Chairperson
Lisa Andrews (LA)

Community Members

Dr Julia Imrie (JI)
Helen Ungaro (HU)
Aleisha Lonsdale (AL)
Bev Smiles (BS)

Stakeholders

Cr Des Kennedy (DK) – Mayor, Mid Western Regional Council
Cr John O’Neil (JO) – Mid Western Regional Council
Stephen Alcorn (SAIc) – Mudgee Chamber of Commerce
Aleisha Lonsdale (AL) – Mudgee Local Aboriginal Lands Council & Murong Gialinga ATSIC
Bev Smiles (BS) – Mudgee District Environment Group

Moolarben Coal Operations

Graham Chase (GC)
Steve Archinal (SA)
Trent Cini (TC)
Ashley Tones (AT) *{Minute taker}*

Apologies

David Stokes (DS) – Community Member
Mat Croake (MC) - MCO

Agenda and Meeting 54 Presentation was provided to all meeting attendees.

1. Introduction and Welcome

Lisa Andrews (LA) opened meeting and welcomed all attendees to the Moolarben Coal Operations (MCO) CCC.

LA introduced the new Mudgee Chamber of Commerce delegate Stephen Alcorn (SAIc) replacing Andrew Palmer (AP).

SAIc provided a background summary of himself.

LA informed members that AP has been thanked for his time and contribution on this CCC.

LA introduced all CCC attendees that were participating in the meeting.

2. Apologies

David Stokes and Mat Croake.

3. Business Arising from Previous Finalised Minutes

LA confirmed previous meeting minutes finalised and distributed on 22 June 2020.

LA discussed previous actions items being:

1. *Distribution of MWRC brochure to CCC members* – Sent 2 June 2020 by LA to all CCC members.
2. *Formalise a request for an update from departments regarding Annual Review (AR)* – Complete – Refer to item in correspondence

No further actions or business arising from CCC Meeting 53.

Correspondence

Correspondence to the CCC since meeting 53 included the following:

- 10/6/20 – Draft minutes sent to CCC members for review. Comments received back and incorporated into final minutes.
- 22/6/20 – Finalised minutes sent to CCC members.
- 25/6/20 – Email sent to the Resources Regulator seeking advice on when the Annual Report would be available for distribution to members. (nswresourcesregulator@service-now.com)
- 26/6/20 – Email from MCO advising of the approval of Moolarben Stage 1 MOD 15 - UG4 Ancillary Works by DPIE. This information forwarded on to CCC members.
- 7/7/20 – Email from Resources Regulator advising that the 2019 Annual Report is currently being processed and if accepted, should be available in 4 weeks. This information forwarded to CCC members on 8/7/20.
- 23/7/20 – Email to members advising that DPIE & Resources Regulator had approved the Moolarben Coal 2019 Annual Review.
- 28/8/20 – Email to members with the Meeting Notice & Agenda for this meeting with Correspondence Report.
- 28/8/20 – Email from AP advising that he was stepping down from his position on the Mudgee Chamber of Commerce and subsequently as its delegate on the CCC.
- 7/9/20 – Email from AP advising that he will attend this meeting as the Chamber's delegate until a new one is appointed.
- 7/9/20 – Email from JI with questions/water data request for this meeting.
- 9/9/20 – Email from Mudgee Chamber of Commerce advising that Stephen Alcorn is its new delegate on this CCC.

- 10/9/20 – Email to SAIC with the pecuniary/non-pecuniary interest & code of conduct forms for completion.
- 10/9/20 – Email to AP thanking him for his commitment and participation in this CCC over the years.
- 15/9/20 – Email to members with the log-in details and presentation for this meeting.

Note: JI had requested that LA make representations to the Department regarding the requirements for the provision of documentation. Following this a response was received from DPIE advising that: “there is no enforcement or requirement to share these draft reports and up to the discretion of the companies.” LA stated that Yancoal has made it clear in the past that whilst the documents are in draft form they are not comfortable with releasing them until accepted and approved by the relevant authority.

Queries from the CCC

GC referred to questions and comments submitted by JI to the Chairperson relating to the Annual Review and surface water:

“Annual Report.

Groundwater response in and around to UG1 is critical in developing a better understanding of the impacts of future mining on the Goulburn River.

Decline in SWLs for PZ179 are not discussed in AR. This is the only Triassic & Upper Permian piezometer close to UG1 (i.e. 1.3 kms outside mining footprint).

PZ179 is therefore a Key site for monitoring impacts and assessing risks to the upper GW system from nearby LW mining.

Monitoring of GW indicates limited, and somewhat lagged response to rainfall (CRD Wollar), with a recent recovery in 2020 not rainfall related?? (ie before it rained significantly).

What is clear is GW levels dropped significantly coinciding with UG1 mining in late 2016- 2017 (opposite to CRD graph - Extraction Plan GW tech Report - Figure 24.)

Q1. Why is PZ179 not used as a 'trigger' piezometer.- 2019 declines in SWLs for PZ179 (28) were 2.62 m & PZ179 (33) by 4.96 m

I would have expected a more complete assessment of the GW behaviour for this site would have been in the 2019 Annual Review and also the UG1 Extraction plan GW tech report.?

Q2. Why has PZ179 (80) – SWLs not been reported since 2018?

PZ186 - during 2019 SWLs declined 3.9 metres and over 25 metres since UG1 commenced mining in 2016 - this decline is indicative of impacts on Upper Permian/ Triassic GW system. Site is 1 km from UG1

Q3. Could more detailed analysis of this be provided? Decline is clearly not directly rainfall related (on the basis of monitoring data since 2009)

PZ191 - shows significant changes to SWLs (decline of over 18 m in 2019) and increase of over 1500 $\mu\text{S}/\text{cm}$ EC (Salinity) since 2018 (reported as a decline over 2019 in the AR) . This monitoring piezo is adjacent to the River and opposite Ulan Coal OC1 rehab area - this is an important monitoring site - why is this not investigated and/or discussed in much more detail in order to understand what is going on?? Could help to explain some unusual spikes in river salinity

Surface Water

Q4. What is the estimated interception volume (ML) attributed to Basic landholder rights – ie 10% Harvestable rights according to land area. On what total land ownership area is this calculated? What item covers these rights in the site water balance (Table23 p38 AR)?

Q5. Approval MOD 15- what additional monitoring piezos will be installed for assessing impacts of UG4 on upper GW system that will come under 250 meters from the River bed?

Q6 - Water take from UG1 since January - ML/day average, 50 percentile and 80 percentile (has this increased since the rain?)

Q7. Daily discharge rates into river for last quarter - is the hydrochemistry being analysed (in addition to real time EC, pH, Turbidity) - what frequency, when is it sampled and what are the results.

Updated groundwater levels for monitoring piezometers as requested previously.”

GC described that the Annual Review was prepared in accordance with approval requirements and government reporting guidelines and submitted for approval by the Department of Planning Industry and Environment (DPIE) and the Resources Regulator. JI commented that her reasons for querying the delay in the release of the AR was the lapse of time between when monitoring was conducted and release of the data to the community, over 18 months in some cases. GC explained that EPL reports including data are available throughout the year on MCO's website. JI requested that to avoid this in the future that an early release of the draft document be provided. GC confirmed the Annual Review is published following Government agency approval and would not be released in draft prior to this.

GC described the development of the Groundwater Management Plan in consultation with government agencies, and approval by the DPIE, including the monitoring program and investigation triggers. Discussion of the monitoring program being used to monitor impacts of the operation and triggers developed for Triassic and alluvium monitoring bores to identify drawdown trends that could potentially lead to a private bore being impacted. GC noted that groundwater monitoring results are considered in extraction plan development and groundwater model reviews and recalibration.

JI asked if the drawdown in PZ179 will be considered in the mine extraction plan for UG4 in relation to potential impacts on groundwater discharge to the Goulburn River. GC advised that the extraction plan will consider all monitoring data, including PZ179. GC advised that PZ179 (80m) was removed from monitoring program in 2018 based on advice from MCO's groundwater expert because the data was anomalous. GC advised PZ186 was decommissioned at the end of 2019 due to the casing integrity and since replaced with a Vibrating Wire Piezometer.

JI asked about PZ191. GC advised that PZ191 is located in the Ulan Coal Seam directly adjacent to underground workings and lateral dewatering holes drilled in the coal seam, and a reduction in water level is expected. JI expressed interested in PZ191 that is mid-way between the MCO and Ulan pits exhibited a significant increase in salinity suggesting contamination. GC advised on changes to EC associated with PZ191, including an increase in 2018 with a gradual decline during 2019.

General discussion of Harvestable Rights and the Site Water Balance (SWB). GC described harvestable rights capacity of dams that can be constructed on certain streams based on total land holdings, and exempt works related to pollution controls, such as mine dams. JI asked if the 10% rainfall runoff captured from the land surface as harvestable rights is reported in the site water balance. GC described the site water balance and its inclusions such as rainfall and runoff reporting to mine dams and pits, and noted the use of clean water diversions to divert water around the site.. GC advised dams outside of the mine area and related harvestable rights are not being used by the operation.

GC referred to Modification 15 (UG4 Ancillary Works) and described that the modification did not change the approved mine layout, extraction height or rate of production. JI asked whether there will be additional monitoring between the river and UG4 longwalls when closest to river. GC advised that monitoring will be considered as part of the preparation of the extraction plan.

GC described dewatering from underground had increased over the last 6 months to an average of 85lps, including water supply, inflows and recirculation. JI asked if the increase was due to higher rainfall. GC advised that increases include a combination of rainfall and groundwater with first workings towards UG4 and the lateral holes which provide advance dewatering. JI referred to initial groundwater modelling showed much lower mine water make, this was adjusted upward in the most recent 2017 modelling after more water was produced, despite the dry conditions in 2019.. GC advised rates are below current modelling predictions.

GC advised that monitoring of discharge from the Water Treatment Facility (WTF) is undertaken as per the Surface Water Management Plan and Environmental Protection Licence, including continuous, weekly and monthly

sampling. JI queried the process of when samples are taken, e.g. are they on the same day every month. GC explained that it depends on when the plant is running with samples taken from the pipeline before the river.

CCC Update Presentation

GC provided an update on COVID-19 management actions.

GC provided an update on the Community Support Program (CSP) and announced the CSP for 2021 is about to open with details on the MCO website. GC further advised if CCC members are aware of any activities or programs which could benefit from support then to consider the CSP.

TC provided an operational update. BS asked how wide spread was the spontaneous combustion. TC explained it remains in same location with MCO progressively working through those areas. BS asked if overburden was causing the problem. GC discussed the material, testing undertaken to understand the material and improving management. BS asked if MCO are changing its practices to manage that type of material. GC confirmed that MCO has reviewed and revised practices. BS noted it was worse during inversion in winter. GC advised that weather conditions are considered when undertaking works.

TC provided an update on exploration drilling program. BS asked if the location was north of the Goulburn River, requesting a map to be included and timing of exploration. TC confirmed the location is on MCOs Bobadeen property north of the river. GC explained MCO are in the planning stage and are expecting to start in the last quarter of the year, subject to weather and access. MCO to show exploration location on plan. [ACTION]

TC provided an update on MCO water releases. JI asked if water being released has been through the RO. TC advised that all release water is from the Water Treatment Facility, which treats all water to meet criteria. JI asked why the EC of water currently being discharged is a 200-300 EC, much lower than the EPL limit, is the groundwater salinity lower than predicted. GC explained MCO are operating conservatively and will gradually adjust over time as required. JI asked what water sources are mixed and their relative proportions, e.g. what percentage is from the RO WTF. GC explained release water goes through filtration and a portion goes through the RO, with the release based on site water balance and includes water from groundwater and surface water runoff. JI emphasised the need to understand where the groundwater being produced by UG1 was coming from i.e. coal seam, upper aquifers or rainfall recharge. This would help inform on the potential impact of UG4 on the Goulburn River.

BS commented on more regular large releases and asked if this is relating to rainfall. TC explained that releases are based on site water stocks. GC explained stocks have built up with rainfall and noted lower rates during initial periods of operating the new facility as processes and systems were established. TC advised releases should begin to ramp down subject to rainfall.

TC presented the surface water data, general discussion regarding the last three months of results was undertaken with questions from JI and BS regarding minor spikes in the data. JI commented the similarity of colours used in the graph made it difficult to distinguish between sites.

TC presented the noise and air quality data. BS asked about power outages and impacts on results. GC advised power outage such as black outs or maintenance become a technical non-compliance, which has occurred at one of the TEOMs, with other TEOMs continuing to monitor and the outages do not affect the annual averages.

TC presented the rehabilitation and offset management update. JI asked whether rehabilitation monitoring included a comparison of sediment runoff according to age and disturbance as a measure of stability. TC explained MCO monitor against rehabilitation criteria including Landscape Function Analysis (LFA) which considers soils and groundcover. Additional information on rehabilitation LFA monitoring to be provided. [ACTION] Further discussion was undertaken regarding grazing on Bobadeen. TC confirmed that grazing on offsets would be limited to crash grazing for management such as fire load.

GC provided an update on employment, training and awards.

GC provided an update on the approved UG4 Ancillary Works Modification. JI referring to EMP updates asked if these include GWMP. GC confirmed all EMPs are requirement to be reviewed and revised as necessary to reflect Modification and general operational updates, which includes updates to SWMP and GWMP. JI asked to be advised when the Groundwater and Surface Water Management Plans were updated. TC noted approved EMPs will be on website. [ACTION].

TC presented a summary of the 2019 Annual Review, general discussion regarding the annual review was undertaken with further questions and concerns from JI and BS regarding triggers, rainfall, the lack of explanatory details, investigation into the groundwater response and subsidence. GC described the use of triggers for investigation. TC noted the influence of rainfall, mining operations and regional depressurisation. BS commented on PZ055 data. GC advised results from previous year and installation of inception drain. JI asked about subsidence. GC confirmed subsidence is generally less than the approximately 2.2m predicted.

4. General Business

LA noted the meeting was quite technical with water data and would look at managing all members’ requirements. AL noted appreciation of hearing the perspectives from this area.

JI expressed interested in koala population around the site and surveys carried out as there has been koalas reported in the Moolarben and Ulan area. GC explained numerous surveys on site including fauna surveys with the most recent survey conducted on the Gilgal property looking for scats and koalas. GC confirmed species of trees planted in rehabilitation areas and offsets include feed trees for koalas. JI asked to be advised what species are being planted [ACTION].

JI asked since recent meetings have been conducted remotely would inclusion of representatives from government departments be an option for future meetings. LA confirmed the possibility.

BS referred to the Lue Silver Project and asked if MCO had discussions with Bowdens regarding water. GC confirmed MCO has had discussions with Bowdens and that no agreement is in place.

BS noting her observation that the rail line seemed to be down more these days and asked about impacts on train movements. GC advised that rail has not been a constraint and that MCO works with rail providers to meet the site’s rail requirements.

5. Next Meeting: Tuesday 24 November 2020 at 4:00pm – onsite

Meeting Closed at 5:43pm.

Action Items:

Item	Action	Responsibility
1	EL6288 exploration location to be provided.	MCO
2	Provide information on LFA monitoring.	MCO
3	Inform CCC when GWMP and SWMP are approved and on MCO’s website	MCO
4	Provide detail on Koala feed tree species being planted	MCO

Community Consultative Committee Update

September 2020

Environment & Community Dept
Moolarben Coal Operations



COVID – 19 Update

- Proactively managing the situation to safeguard the health and safety of our people.
- No confirmed COVID-19 Cases.
- Yancoal continues to monitor the situation and health advice.
- Site access restrictions.
- Screening people on entry (Thermal Cameras).
- Implementation of social distancing and reinforcement of hygiene practices.
- Enhanced cleaning.
- Community support focused on COVID response and health.



Community Support Program (CSP)

- MCO have been actively engaging with 2020 CSP recipients during COVID-19 restrictions.
- CSP events or initiatives completed since last CCC meeting.
 - Palliative Carer's chair for the Dunedoo Multi-Purpose Health Centre
 - 200 face masks donated to the Dunedoo Multi-Purpose Health Centre
 - Rylstone Public School P&C Fundraising Raffle
 - Watershed Landcare – “Taste of Green Day” at Ilford and Goolma Public School



Community Support Program (CSP)

2021 Community Support Program

- Applications open Monday the 21st of September.
- More information can be found at:
www.moolarbencoal.com.au/page/community



NEED FUNDING TO HELP IMPROVE OUR LOCAL COMMUNITY?

Yancoal Community Support Program call for applications

Moolarben Coal Operations is a proud and active member of the local community. Yancoal's 2021 Community Support Program offers community groups the opportunity to apply for funding to support projects, events and initiatives that help make a genuine positive difference to the Mid-Western Region.

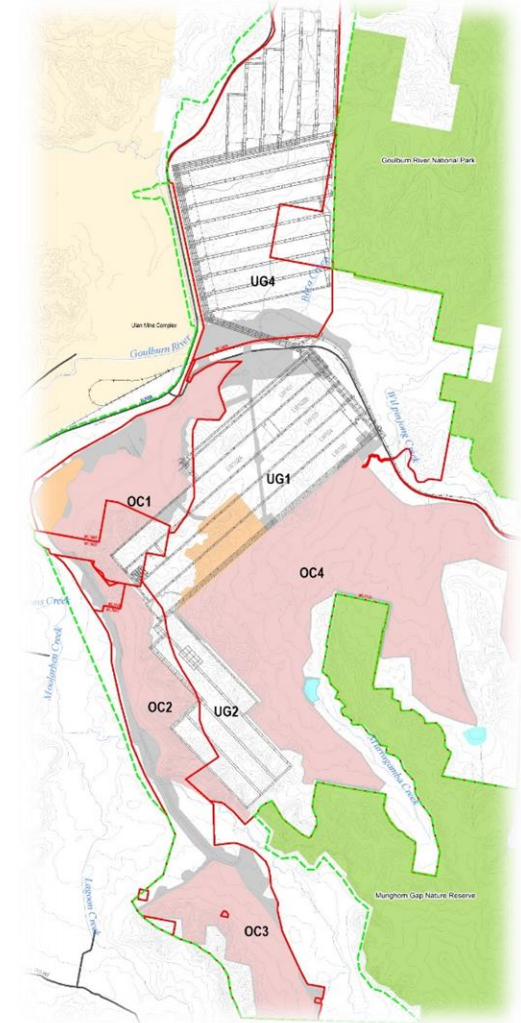
If you have a project or idea with the potential to benefit others across the areas of health, community, environment, arts, culture, education or training, please visit: www.moolarbencoal.com.au

Applications close on 6th November 2020



Operational Update

- Ongoing open cut operations in OC2, OC3 & OC4.
- Underground operations in longwall LW104 and development.
- Water Treatment Plant operations continue as required.
- MCO are currently revising EMP.s
- Remediation of heating within overburden areas continues as required.



Exploration Update

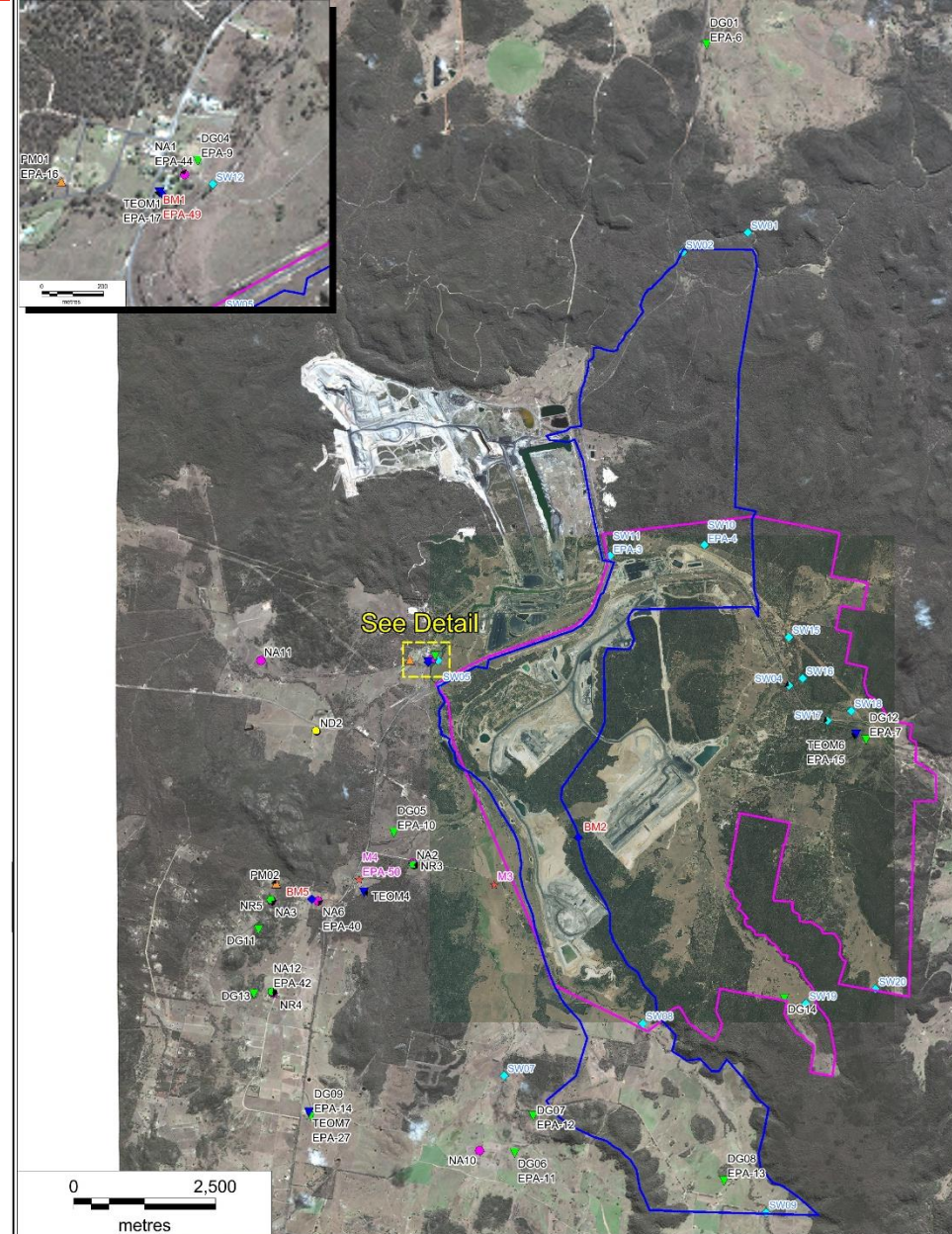
- Future drilling programs planned for the northern areas of EL6288.
- Exploration site rehabilitation and relinquishment continues.
- Rehabilitation and monitoring activities have continued during the period.



Environmental Monitoring

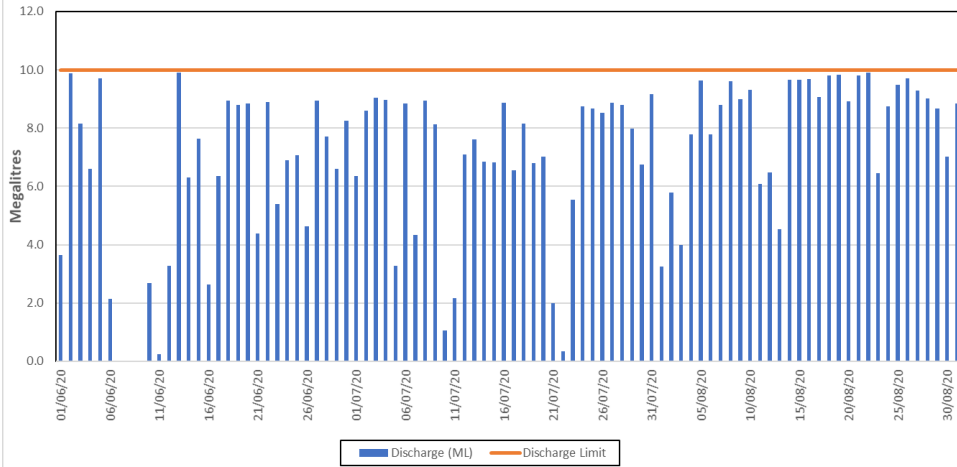
Monitoring network

- Water;
- Air Quality;
- Blasting;
- Noise;
- Meteorology.

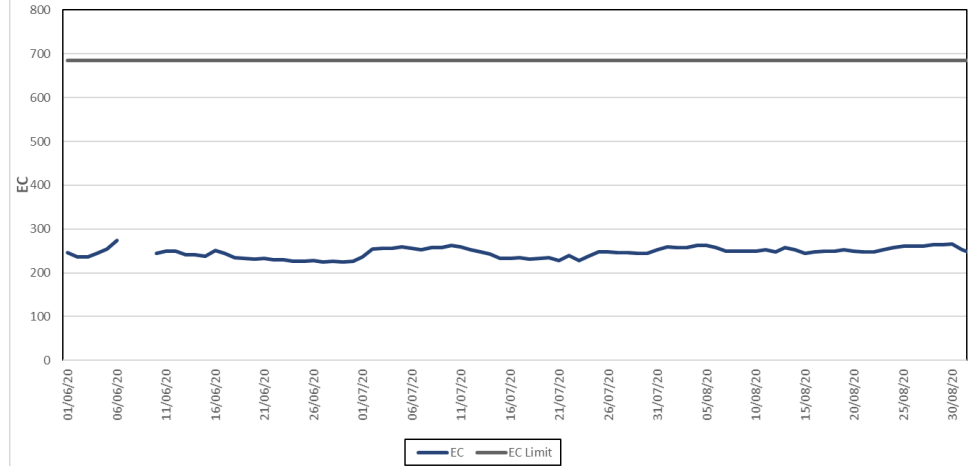


Water Release

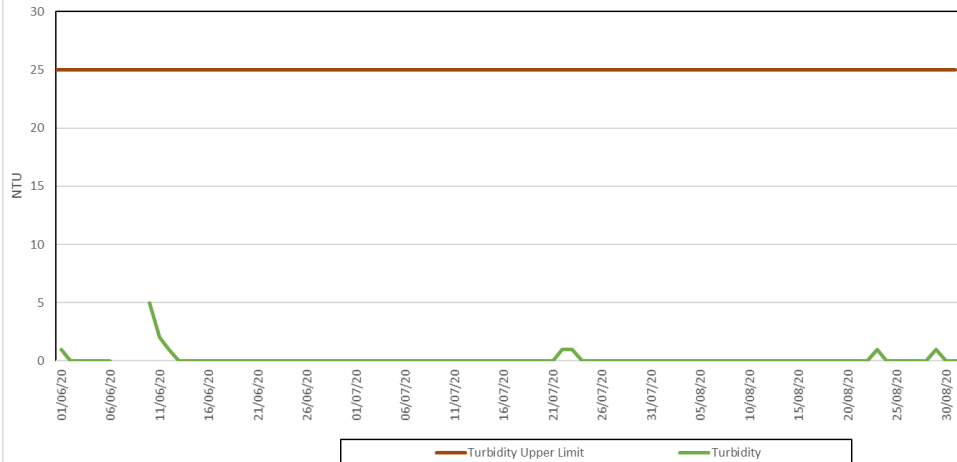
EPA 1 Daily Discharge Volumes
June - August 2020



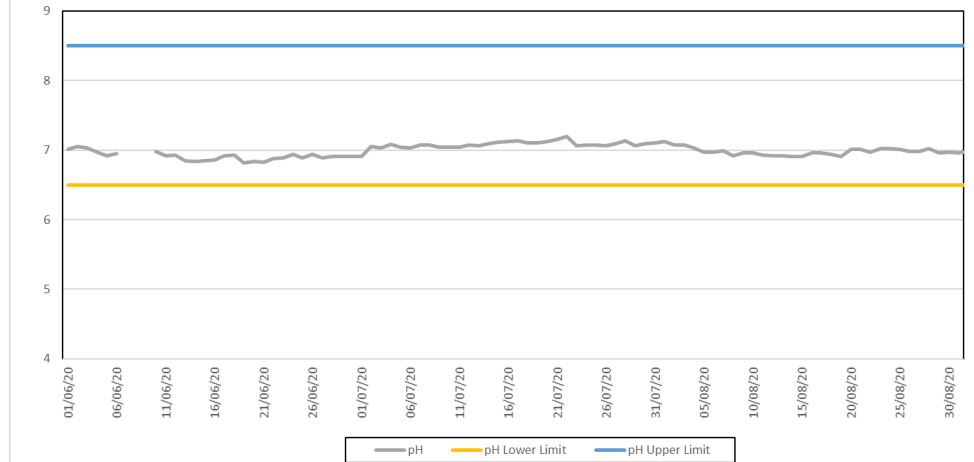
EPA 1 Daily Average EC
June - August 2020



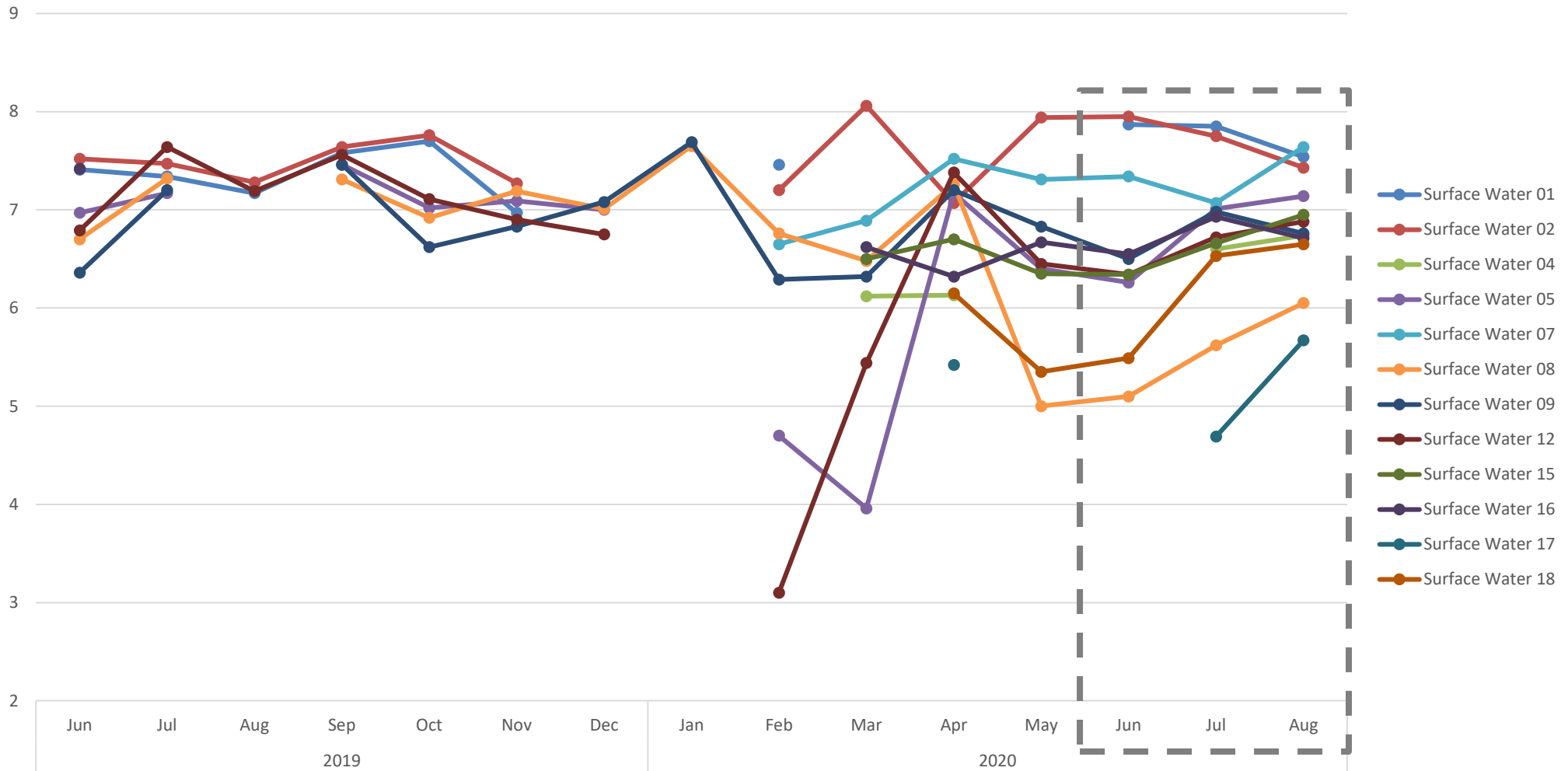
EPA 1 Daily Average Turbidity
June - August 2020



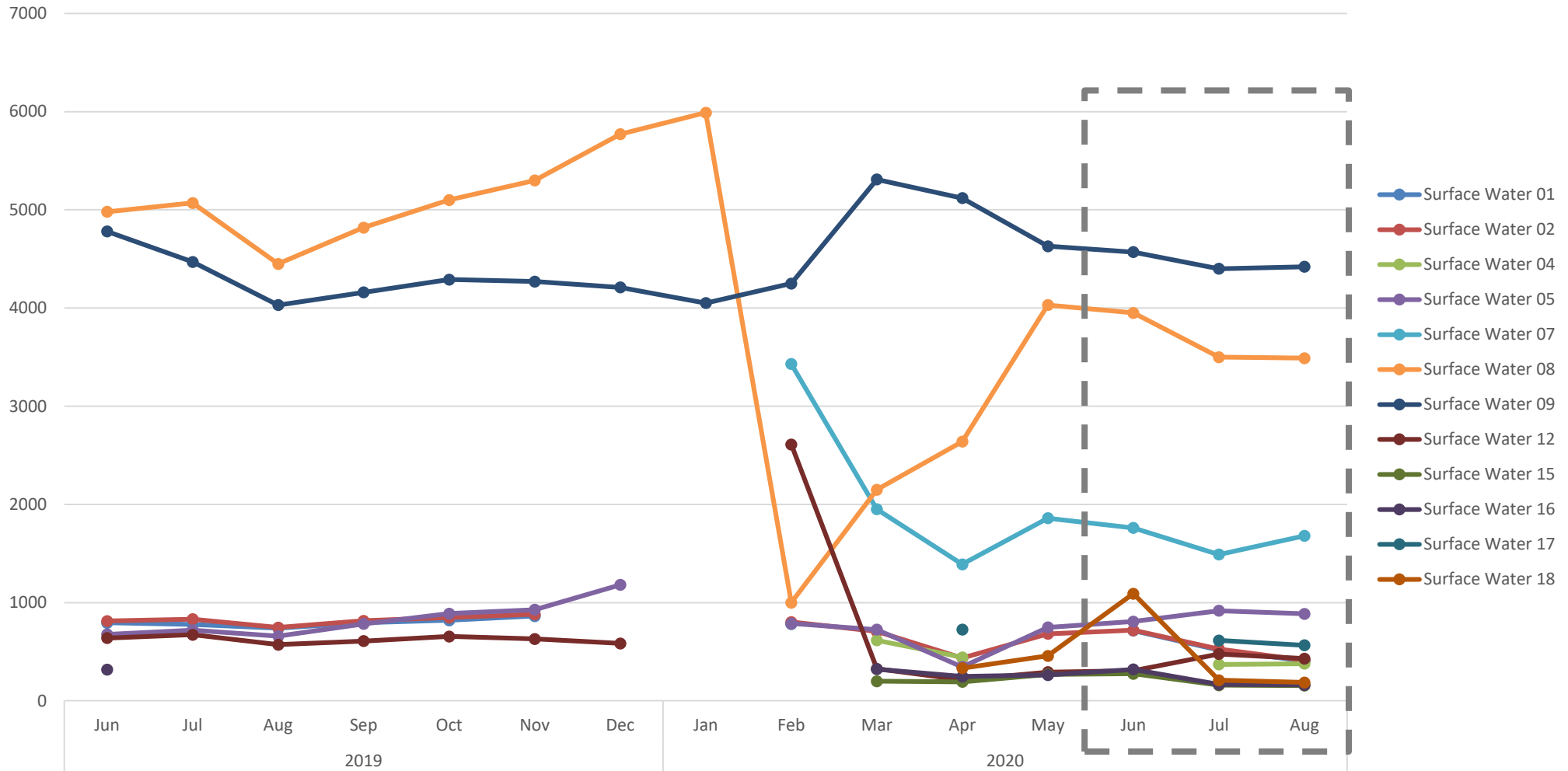
EPA 1 Daily Average pH
June - August 2020



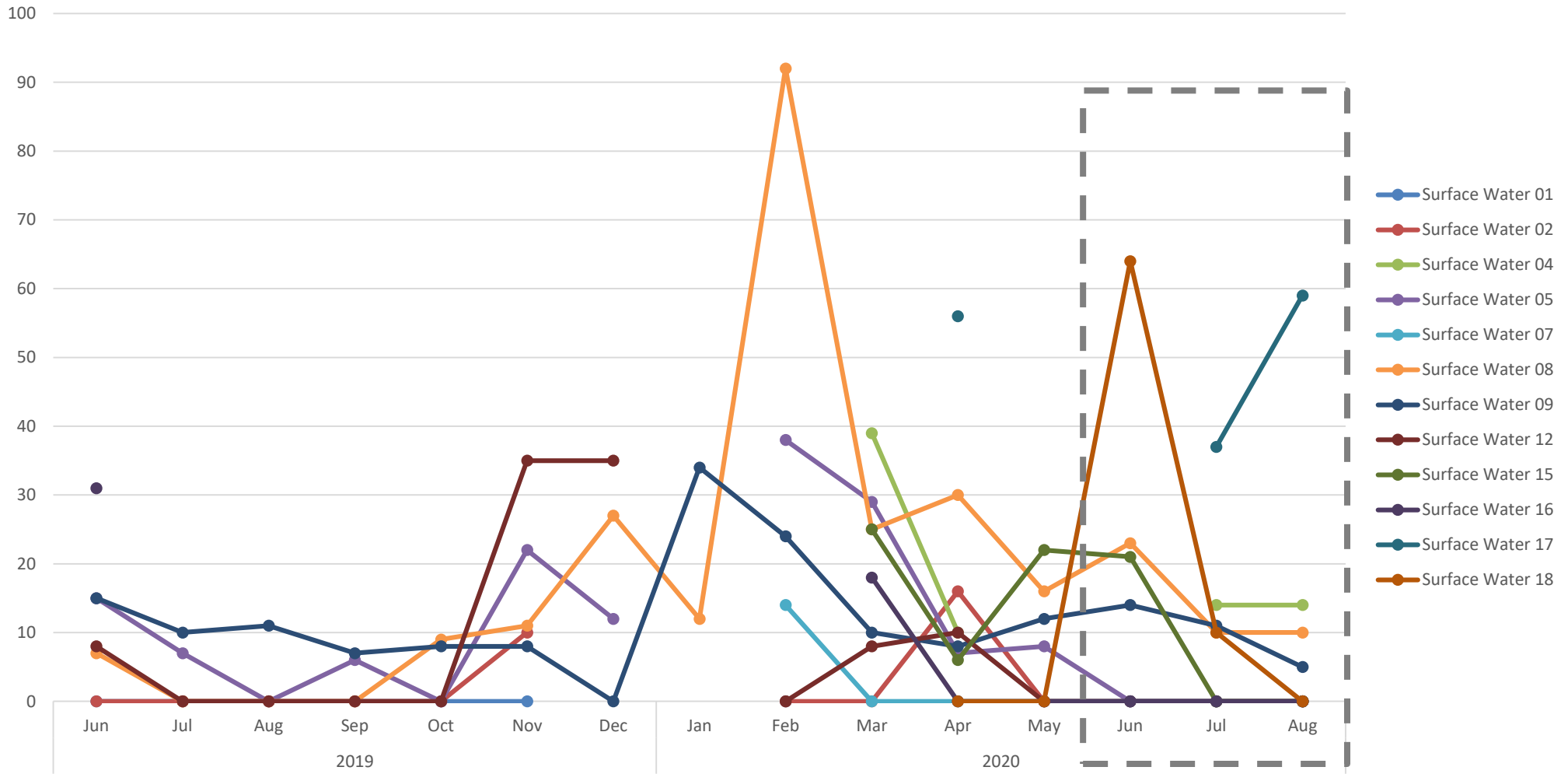
Water Quality - pH



Water Quality - EC



Water Quality - TSS



Air Quality

Site	August 2019 PM10 Annual Average ($\mu\text{g}/\text{m}^3$)	August 2020 PM10 Annual Average ($\mu\text{g}/\text{m}^3$)	Air Quality PM10 Annual Average Criteria ($\mu\text{g}/\text{m}^3$)
TEOM 01	14.7	17.1	25.0
TEOM 07	15.2	12.7	25.0
TEOM 04	18.6	16.4	25.0

Site	August 2019 PM2.5 Annual Average ($\mu\text{g}/\text{m}^3$)	August 2020 PM2.5 Annual Average ($\mu\text{g}/\text{m}^3$)	Air Quality PM2.5 Annual Average Criteria ($\mu\text{g}/\text{m}^3$)
TEOM 07	N/A*	4.3	8.0

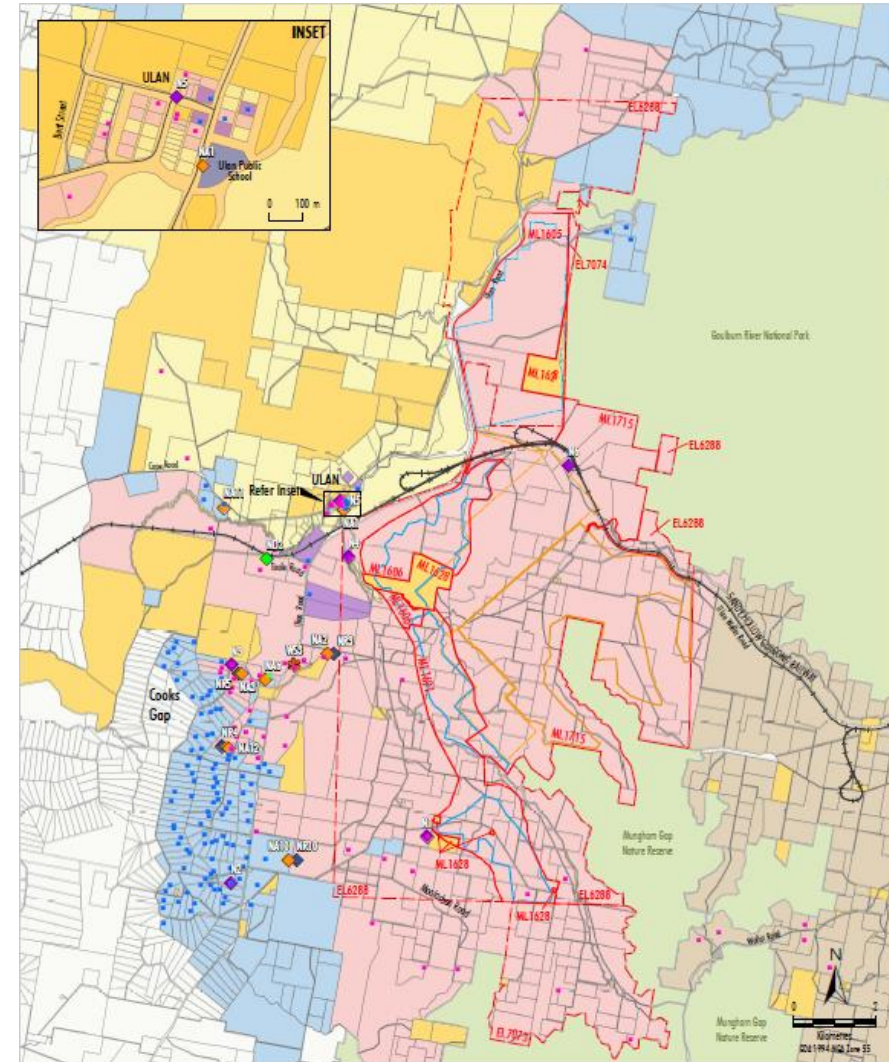
*less than 12 months of data

Monthly monitoring reports are available on our website:

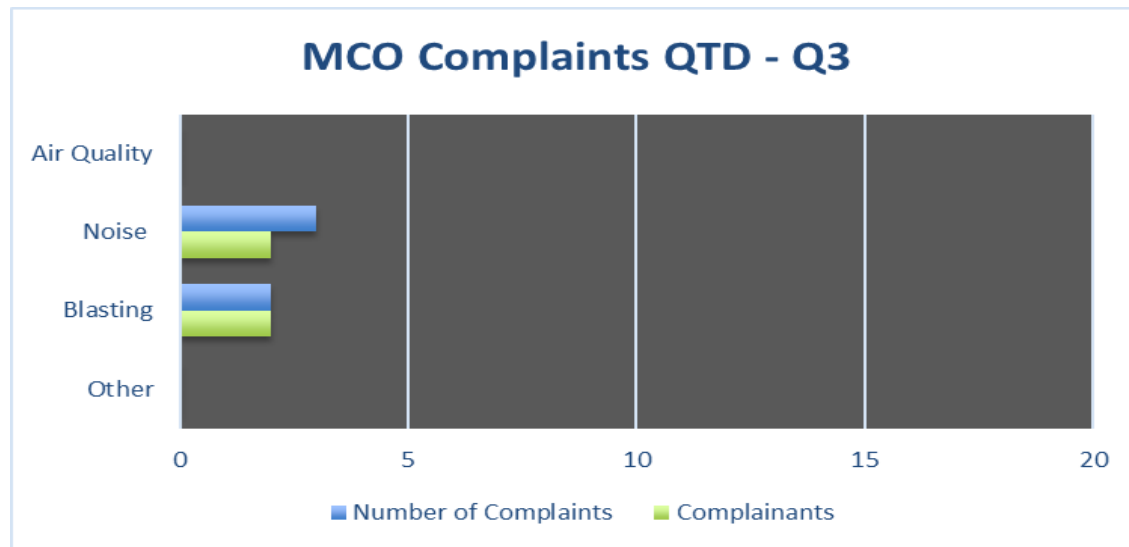
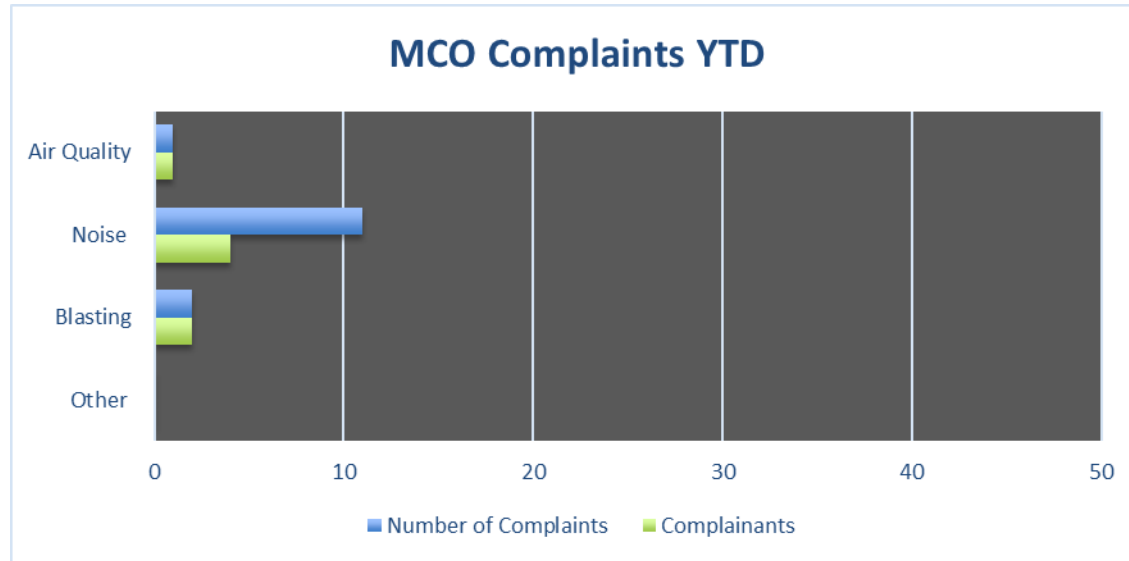
www.moolarbencoal.com.au/environment-and-community/monitoring-results/

Noise Monitoring

- All monthly & quarterly attended noise monitoring within criteria.
- Continued implementation of:
 - Planning controls - scheduling
 - Engineering controls - attenuation
 - Operational controls - bunds/screens
 - Real-time monitoring triggers
 - Real-time response protocols



Community Complaints



Rehabilitation Update

- Rehabilitation maintenance works are continuing.
- Rehabilitation monitoring in progress.



Biodiversity Offset Management

- Bobadeen Offset planting works completed for 2020.
- Ulan 18 Offset planting works are in progress.
- Spring biodiversity monitoring is underway



Employment Update

Traineeships

- Currently 9 Underground

Apprentices

- Currently 3 Underground, 17 Open Cut and 4 at the CHPP

General

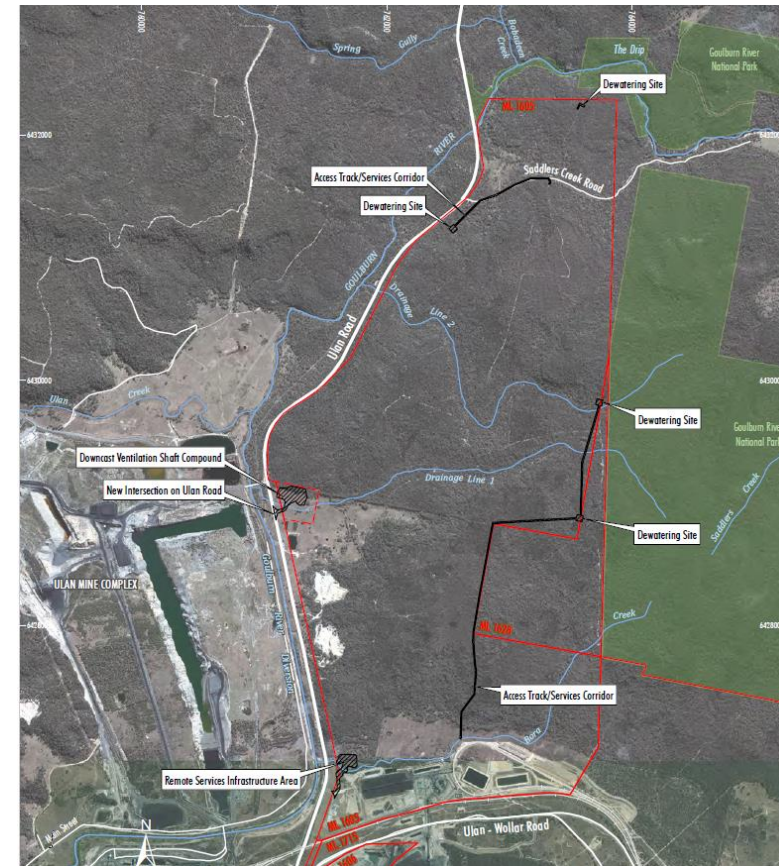
- Skillset Land Works – 3 Traineeships in Conservation Land Management
- Reece Oldfield, finalist for NSW Training Awards - Trainee of the Year



UG4 Ancillary Works Modification

Modification Overview

- Modification assessed and approved by the NSW Department of Planning, Industry and Environment in June 2020.
- Commonwealth Department of Agriculture Water and Environment determined the project was not a controlled action.
- Environmental Management Plans being updated to reflect approved project.



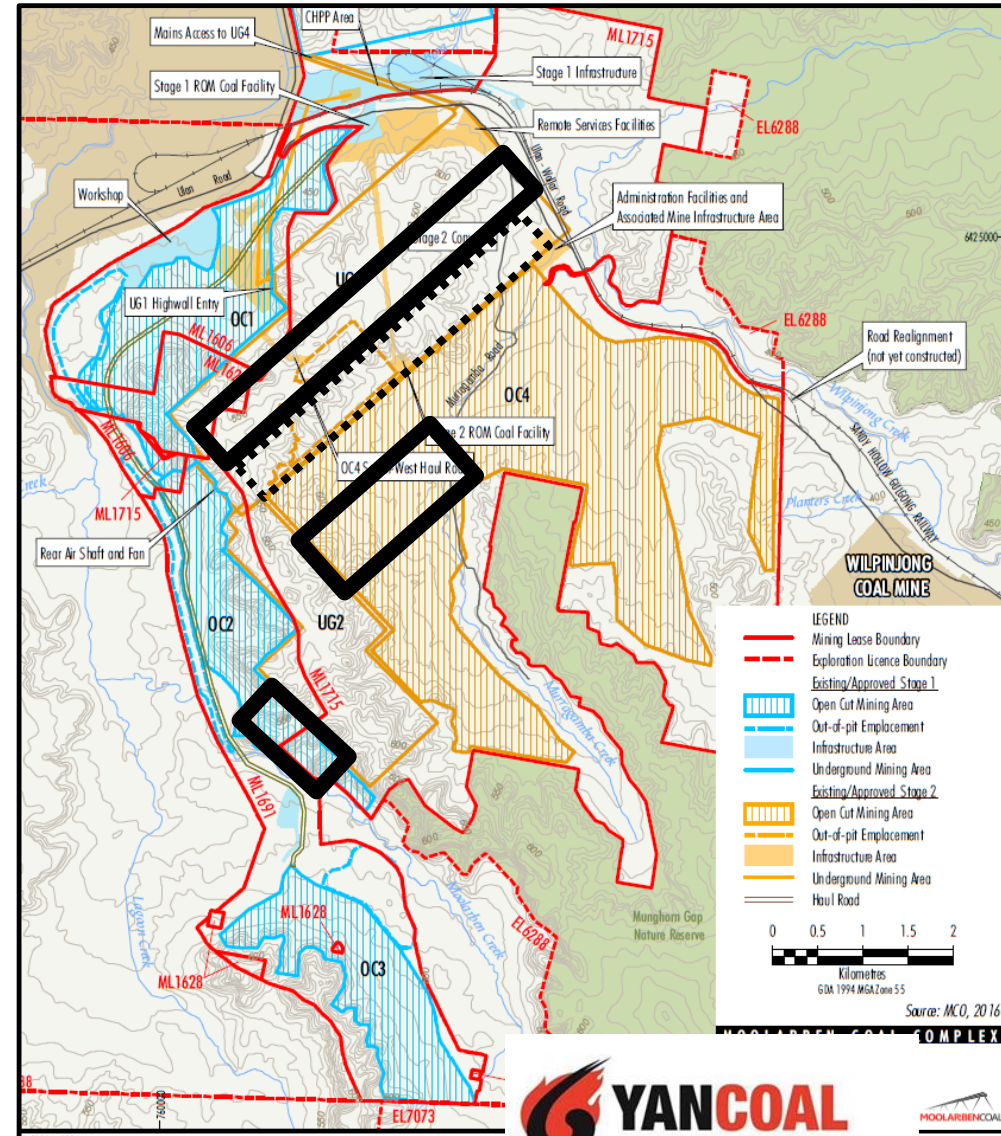
UG4 Ancillary Works Modification
Indicative Surface Infrastructure Area

Annual Review Summary

- Activities During the Reporting Period
- Environmental Performance
- Water Management
- Rehabilitation
- Community

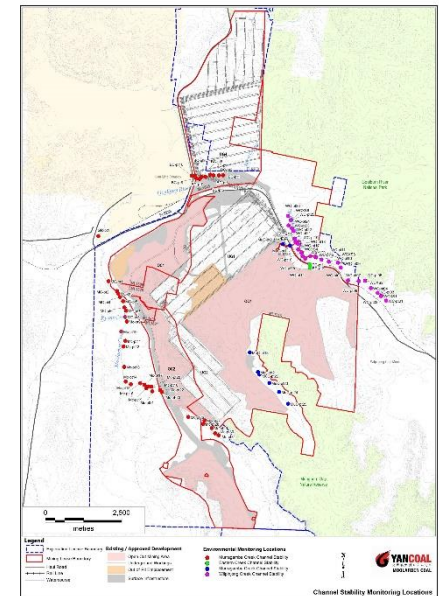
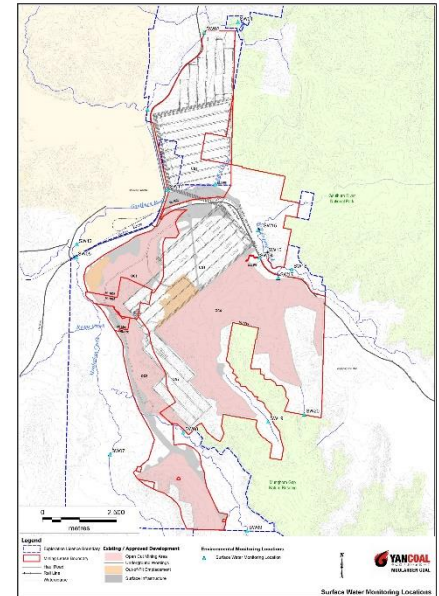
Activities During the Reporting Period

- Preparation for mining in OC2 and OC4
- Mining operations in OC2, OC4 and UG1
- Progressive rehabilitation in OC2 and OC4
- Water Treatment Plant construction
- Moolarben Creek Crossing
- 13.5Mt washed and 17.8Mt railed
- Exploration in EL6288 and EL7073
- Mining Operations Plan amendments to reflect mine progression



Water

- Water
 - Below average rainfall (360mm vs avg of 652mm).
 - No discharges occurred.
 - Surface water generally consistent with historical range.
 - Decreased rainfall run-off, increased Ulan supply and similar groundwater inflow.
- Stream Health
 - Aquatic habitat condition indicate little change with sites stable.
 - Climatic factors and flow regimes continue to be the dominant influence on aquatic ecological.
- Channel Stability
 - Stability variable within each creek. Active erosion predominantly the result of natural influences exacerbated by past land use.



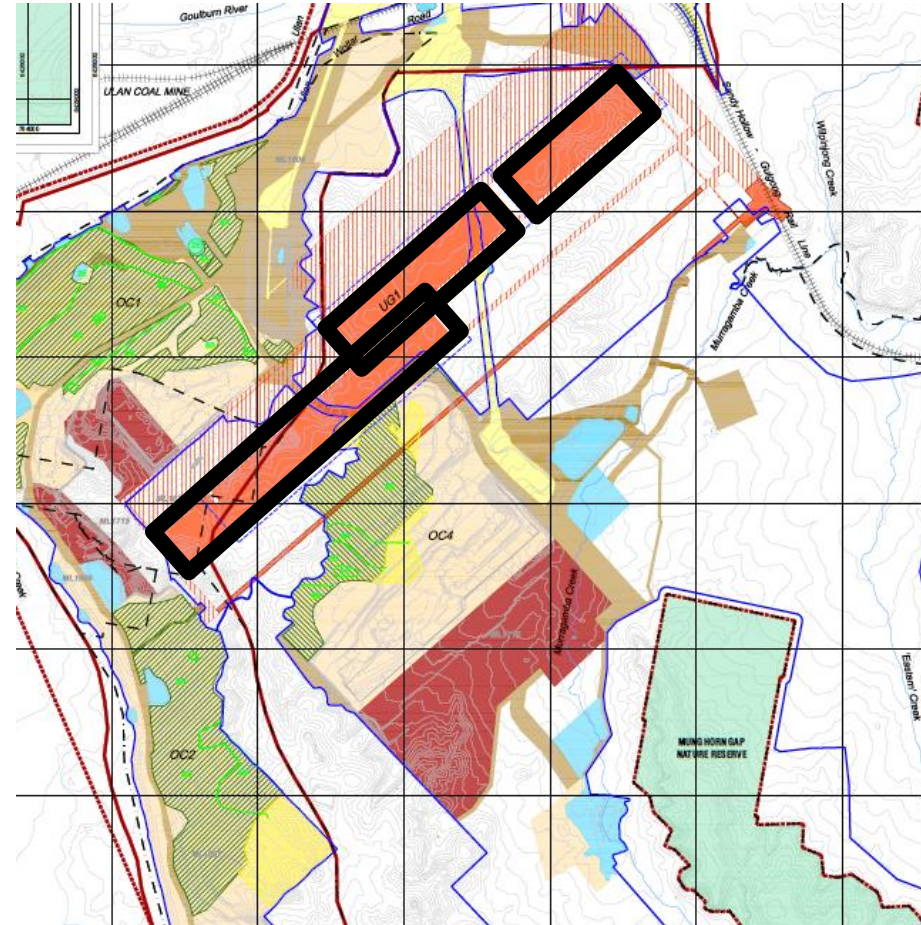
Groundwater

- Groundwater level trends were influenced by the Rainfall Cumulative Deviation (RCD), UG1 mining, open cut operations and regional depressurisation.
- Continued below average rainfall contributed to level reductions.
- Alluvium bores generally exhibit lowering trend.
- Triassic bore levels stable to slightly declining trend.
- Three groundwater level investigations triggered. PZ105C with localised effect, PZ187, and PZ184 located within OC4 pit.
- Groundwater quality triggered for;
 - PZ151 – elevated EC likely related to decline in water level associated with a combination of approved operations and climatic influence
 - PZ191 – above EC trigger level, likely related to predicted water level drawdown associated with approved operations
 - PZ055 – reduced EC results however remained above trigger level



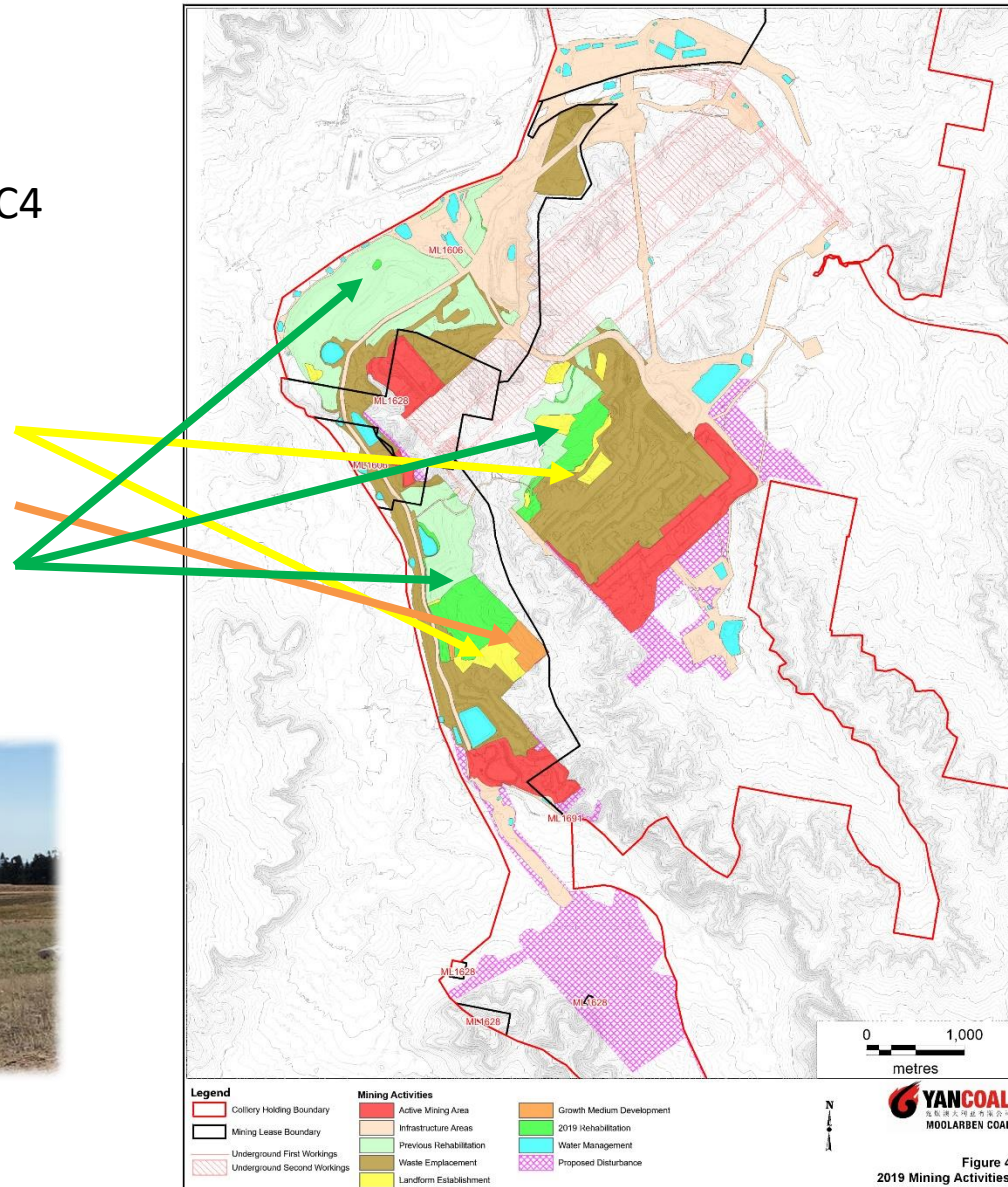
Mine Subsidence

- Secondary extraction undertaken in Longwall 102A, 102B and LW103.
- Subsidence impacts during the period were consistent with predictions.
- No performance measures exceeded.
- No built features impacted by subsidence.



Rehabilitation

- **Activities**
 - Progressive rehabilitation in OC2 and OC4
 - Maintenance of existing rehabilitation
- **Status**
 - 35.5ha Landform Establishment.
 - 13.6ha Growth Medium Development.
 - 328ha Ecosystem and Landuse Establishment.



Incidents, Compliance and Complaints

- Incidents and non-compliances
 - Non-continuous PM10 Monitoring – Power supply loss and routine maintenance
 - A blast on 1 July 2019 resulted in a visible dust plume that moved in a westerly direction and gradually dissipated – PIRMP activated, dust levels at the time below MCO air quality criteria.
 - Self heating and spontaneous combustion in OC2 and an odour complaint received - the Air Quality Management Plan was revised with additional odour management measures included.

- Complaints
 - 38 direct complaints from 11 complainants.
 - Decrease from the previous reporting period.
 - 50% of complaints were received from 2 complainants.
 - Noise the primary issue of concern.

Community

■ Engagement

- Moolarben Spirit Awards Program promoting positive contributions in schools.
- Mine tour/career talks with each of the local High Schools and University students.
- Mudgee District High Schools 'Try-A-Trade'.
- Wollongong University vocational student placements.
- Active participation in Wild Dog Groups and the LLS.
- Direct engagement.

■ Community Support

- Donations continued to be provided to over 30 local groups and events.



Thank You



15 September 2020

