

Notice

Environmental Protection Act 1994 Environmental Evaluation

Notice requesting further information

This notice requesting further information in response to receiving an environmental report about an environmental investigation is issued by the administering authority pursuant to section 326F(2) of the Environmental Protection Act 1994.

TEC Coal Pty Ltd
Level 13, 42 Albert Street
BRISBANE QLD 4000

Your reference: TEC Coal Pty Ltd - Environmental Investigation Report Meandu - 14 September 2018

Our Reference: CA34208 STAT1118

Take notice: that under the *Environmental Protection Act 1994* (the Act), a notice requesting further information on an environmental report is issued to TEC Coal Pty Ltd (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

This notice requesting further information is issued in respect of the activities by TEC Coal Pty Ltd at Meandu Coal Mine on land described as mining lease ML6674 situated at around four kilometres west of YARRAMAN, Queensland.

The further information is requested in relation to the environmental investigation report (STAT1118) submitted to the department on 14 September 2018.

A. Grounds

The notice requesting further information is issued on the following grounds:

1. A notice to conduct or commission an environmental investigation was given to you by the department on 21 December 2016.
2. An environmental report titled 'TEC Coal Pty Ltd Environmental Investigation Report Meandu - 14 September 2018, WSP Australia Ref: PS102396-ENV-REP-001 Rev B' was submitted to the department by you on 14 September 2018.
3. The department is satisfied that further information is needed to decide whether to approve the environmental report.

B. Facts and Circumstances

The facts and circumstances forming the basis for these grounds are:

1. You submitted a report on to the department on 14 September 2018 titled TEC Coal Pty Ltd Environmental Investigation Report Meandu - 14 September 2018, WSP Australia Ref: PS102396-ENV-REP-001 Rev B (the report).

2. This report was submitted to fulfil the requirements of the notice to conduct or commission an environmental evaluation that was issued to you by the department on 21 December 2016.
3. A notice extending the period for the department to consider the report was issued to you by the department on 28 September 2018.
4. The department has conducted a review of the report, including an assessment by a technical specialist in the fields of water quality and hydrogeology.
5. The department has identified that further information is required to characterise the environmental values and water quality objectives for surface waters and groundwater around Meandu Mine. This relates to requirement 2 of the notice to conduct or commission an environmental evaluation.
6. The department has identified that further information is required in relation to the geochemical assessment of tailings material that has been deposited in the North West Backfill Pit. This relates to requirement 3(i) of the notice to conduct or commission an environmental evaluation.
7. The department has identified that further information is required to assess whether Acid Metalliferous Drainage (AMD) has impacted on or has the potential to impact on groundwater and/or surface waters including Meandu Creek. Additional data is needed to assess impacts, and it appears from the data that has been provided, there are impacts observed downstream of Meandu Creek Dam that have not been fully described in the report. This relates to requirement 4(ii) of the notice to conduct or commission an environmental evaluation.
8. The department has identified that further information is required regarding the effectiveness of the proposed long term measures to manage AMD and related contaminant discharges, particularly in relation to long term management of seepage from the North West Backfill Pit. This relates to requirement 4(iii) of the notice to conduct or commission an environmental evaluation.

C. Requirements

The further information you are required to provide is as follows:

Section 5 – AMD source and extent:

1. Additional information for the testing of the sample of tailings from the North West A Tailings Storage Facility (TSF) collected by Environmental Geochemistry International (EGI) in 2007 and subject to kinetic leach column testing. This information should support the claim made in section 5.1.1.2 that this material is not contributing to AMD.

Section 6 – Characterisation of the receiving environment (surface waters):

2. A characterisation of environmental values and water quality objectives for Meandu Creek. It is noted that the only environmental value defined for Meandu Creek upstream of Meandu Creek Dam and Black Creek is industrial use. The direct connectivity of these sections of waterway with Meandu Creek downstream of Meandu Creek Dam should be acknowledged.
3. A characterisation of environmental values and water quality objectives for Meandu Creek upstream of the mine.
4. Location details (including a map) for sampling points W2 and SW16 that were used to derive site specific electrical conductivity Water Quality Objectives (WQOs) in Table 6.2 in Section 6.3.2 of the report.
5. A comparison of stock water WQOs for total dissolved solids, fluoride, sulfate and calcium with local background and/or upstream water quality data to determine whether stock water guideline values are

appropriate as WQOs for Meandu Creek. It is noted that stock watering guideline values have been utilised to develop water quality objectives for total dissolved solids, fluoride, sulfate and calcium in Table 6.2 in Section 6.3.2 of the report. As an example, sulfate concentrations upstream of the mine are recorded as being less than 50mg/L in Figure 4.8 in Appendix G, indicating a site specific water quality objective is required in place of the stock watering guideline value of 1,000mg/L.

6. Details of relevant water quality data to support the approach taken in Section 6.3.2 of the report.

Section 6 – Characterisation of the receiving environment (groundwater):

7. Assignment of environmental values (EVs) for groundwater, based on identified and potential beneficial uses and protection of the relevant adjoining aquatic ecosystems. It is noted that section 6.3.2.1 of the report states that *‘groundwater that occurs within alluvium is managed as surface water; therefore the groundwater EVs for Meandu Creek, as well as for Black Creek, are taken to be the same as the surface water EVs that have been defined above and in Appendix G’*. As per point 2 and 3 above, it is not considered appropriate to assign groundwater in the area as having no EVs (for the section aligning with Meandu Creek upstream of the mine), or only industrial usage for the section upstream of Meandu Creek Dam.
8. A revised statement regarding the potential future impacts of AMD from the mine in accordance with requirement 4(ii) based on the EVs identified for groundwater.

Section 7 – Surface water investigations:

9. Presentation of the results of a comparison of the water quality upstream of the mine, upstream of the Meandu Creek Dam and downstream of Meandu Creek Dam, to assess the impact of the AMD on Meandu Creek, including:
 - a. Box plots of all data for all parameters for: compliance sites (CP1, CP3, CP4); Meandu Creek sites upstream of Meandu Creek dam (CKMB, CKMD, CKMC, RD7 Road Crossing, Meandu Creek 1, Meandu Creek 2, Meandu Creek 3, Meandu Creek 4, Meandu Creek 5, Meandu Creek 6); Meandu Creek sites upstream of the Mine (CKMF/MCUS1, CKME/MCUS2); Meandu Creek dam (centre of dam); and downstream of the Meandu Creek dam (W3, W2, SW16).
 - b. Comparison of figures in Section 7.2.3.2 for all metal and metalloid compounds subject to testing during the March 2017 survey, as it is noted that only selected parameters were presented in Figure 7.7.
 - c. An analysis of the impact of AMD whenever a change in water quality is observed between the sites upstream of the mine, upstream of the Meandu Creek Dam and downstream of Meandu Creek Dam. It is noted that the current analysis does not consider impacts if they occur at levels below the selected WQOs, and where levels at the comparative site SW36 and Black Creek site BC1 are greater.
10. Revision of the labelling of monitoring sites on maps to ensure consistency between Figures (the main report and Appendix G; e.g. CKMF/MCUS1 and CKME/MCUS2).
11. Revision of the water quality data presented on Figures in Section 7 and Appendix G of the report to ensure the data is clearly legible and at a scale that can be read (e.g. Figure 7.2 and Figure 7.8).
12. Raw surface water and groundwater quality data that has been utilised in the report in an Excel format for further analysis by the department.
13. Additional information in relation to the historical macroinvertebrate surveys in Section 7.2.7.1 of the report. The data that is provided is pooled for all sites, and insufficient data has been provided to support

the statement that '*Richness at sites on Meandu Creek downstream of Meandu Creek Dam is generally within or greater than the range at the comparative sites*'.

14. Information to clarify whether the calculated macroinvertebrate indices in Section 7.2.7.2 are only for the most recent survey (2017).

Section 8 – Impacts to the receiving environment:

15. Revised assessment of potential impacts to the receiving environment, particularly giving consideration to the points raised in items 2, 3, 5, 6, 7 and 8. The department suggests that AMD from Meandu Mine also appears to have potential impacts in terms of elevated concentrations of aluminium, arsenic, copper, and iron in the waters discharged to Meandu Creek and Meandu Creek Dam.
16. Comparison of the concentration of sulfate upstream of the Meandu Creek Dam against the sulfate concentration upstream of the mine with consideration of the stock watering guideline (1,000mg/L) (refer to point 5 above).
17. The conclusion in Section 8.1.1.7 of the report that no impact is occurring should be reassessed on the basis that Tables 4.3, 4.4 and 4.5 in Appendix G indicate there are elevated zinc concentrations at the first site downstream of the release point compared to the further downstream monitoring point.

Appendix F – Contaminant Hydrogeological Assessment:

18. Delineation of impacts to groundwater, in particular, for elevated electrical conductivity.

Appendix G – Mine and environmental investigation – Surface Water:

19. Presentation of the summary data for each of the sites individually as detailed in Table 4.1 and Table 4.2. The summary data for all compliance sites and all sites on Meandu Creek upstream of Meandu Creek Dam have been combined (Table 4.1 and Table 4.2).
20. Revision of Figure 2.2 to ensure that sites Meandu Creek 1 to 6 are presented as sampled sites including the details of the location of all water quality sampling sites provided on a map.

END OF INFORMATION REQUESTED

The further information is requested to be submitted to the department on or before **31 January 2019**.

C. Reviews and appeals

There are no review or appeal rights under the *Environmental Protection Act 1994* for a request for further information made under section 326F(2).

A person whose interests are or would be adversely affected by a decision of the department may be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

Under the *Judicial Review Act 1991*, a person whose interests are, or would be adversely affected by a decision of the department is able to:

- Request a statement of reasons from the department explaining the decision.
- Apply to the Supreme Court for a statutory order of review of the decision if the person is not satisfied with the statement of reasons.

You may have other legal rights or obligations and should seek your own legal advice.

Notice requesting further information

If you fail to provide the further information, the department will make a decision about the environmental report on the information already submitted.

Should you have any queries in relation to this notice, please contact Dan Cohen of the department on telephone number (07) 4302 8516.



Signature

9 November 2018

Date

Tony Baker
 Manager (Compliance)
 Delegate of the Chief Executive
Environmental Protection Act 1994
 Department of Environment and Science

Enquiries:

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