

Notice

Environmental Protection Act 1994

Environmental Evaluation

Notice to conduct or commission an environmental evaluation

This notice to conduct or commission an environmental evaluation is issued by the administering authority pursuant to section 326B of the Environmental Protection Act 1994.

BHP Coal Pty Ltd [ACN: 010 595 721]
Level 14, 480 Queen Street
BRISBANE QLD 4000

Your reference: EPML00862313
Our reference: CR61886

3 May 2019

Take notice: that under the *Environmental Protection Act 1994* (the Act) a notice to conduct or commission an environmental investigation is issued to BHP Coal Pty Ltd [ACN: 010 595 721] (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

The notice to conduct or commission an environmental investigation is issued in respect of the activities of BHP Coal Pty Ltd at Saraji Mine on land described as ML1775, ML1782, ML1784, ML2360, ML2410, ML70142, ML70294, ML70298, ML70328, ML700021 (the premises). This notice supersedes the notice to conduct or commission an environmental investigation issued to you on 14 January 2019 in respect of the same activities.

A. Grounds

The notice to conduct or commission an environmental investigation is issued on the following grounds:

1. The department is satisfied on reasonable grounds that an activity conducted by BHP Coal Pty Ltd is likely to cause potential environmental harm.
2. The department is satisfied that the authorised activity (mining black coal) being undertaken by BHP Coal Pty Ltd is likely to cause potential environmental harm as a result of sediment releases in rainfall events.
3. BHP Coal Pty Ltd holds Environmental Authority (EA) EPML00862313 that authorises environmentally relevant activity (ERA) 13 – mining black coal under Schedule 2A of the Environmental Protection Regulation 2008.

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

1. The department considers that the release of sediment into the receiving environment and the associated build-up of sediment may result in adverse effect/s or a potential adverse effect/s on the

Notice to conduct or commission an environmental evaluation

environmental values of the receiving environment.

2. The presence of sediment in a proximity to waters has the potential to cause impacts to the receiving environment by smothering, and from alteration of the hydrology of the watercourse because of deposition of sediment.
3. The environmental values potentially adversely affected are:
 - a) as stated in the 'Isaac River Sub-basin Environmental Values and Water Quality Objectives Basin No. 130 (part), including all waters of the Isaac River Sub-basin (including Connors River)' dated September 2011¹; and
 - b) the hydrology as a physical characteristic of Hughes Creek, One Mile Creek, Spring Creek and Phillips Creek.
4. The department alleges that sediment originating from activities conducted by BHP Coal Pty Ltd, being mining black coal within the tenure stated in this notice, could potentially adversely affect the stated environmental values of Hughes Creek, One Mile Creek, Spring Creek and Phillips Creek which are situated in the Upper Isaac River Catchment fresh waters of the Isaac River Sub-basin.
5. On 24 November 2017, BHP Coal Pty Ltd notified the department of sediment build-up in the dry beds of Spring and One Mile Creeks.
6. On 6 December 2017, BHP Coal Pty Ltd notified the department of an incident that occurred at Ramp 12 (GPS 636564.68mE, 7515868.04mS) involving the discharge of water that conveyed sediment through an unauthorised release point into Spring Creek, because the release did not occur through an erosion and sediment control structure installed in accordance with the Erosion and Sediment Control Plan (ESCP).
7. On 9 December 2017, BHP Coal Pty Ltd notified the department of an incident that occurred at Ramp 13 (GPS 635403.43mE, 7515157.03mS and 635293.53mE, 7515098.31mS) involving the discharge of water that conveyed sediment through an unauthorised release point into Spring Creek, via a drain alongside Lake Vermont Road and through culverts which are not measure stated in the ESCP.
8. Water quality measurements taken at Ramp 13 on 9 December 2017 showed an electrical conductivity (EC) reading of 6377µs/cm.
9. The Water Quality Objective for EC stated in the 'Isaac River Sub-basin Environmental Values and Water Quality Objectives Basin No. 130 (part), including all waters of the Isaac River Sub-basin (including Connors River)' is <720µs/cm.
10. On 14 December 2017, sediments originating from activities carried out under EPML00862313 were observed by authorised officers in Spring Creek, at the location described as 636590.74mE, 7515836.91mS (opposite the Ramp 12 incident location).
11. On 14 December 2017, authorised officers inspected the area relating to the Ramp 13 incident.
12. It was identified during the inspection that as a result of a rain event (approximately 25mm), water accumulated at what was described as a 'low point' adjacent to Ramp 13 which failed to contain the water which resulted in release to Spring Creek.
13. The 'low point' is not detailed in the ESCP required under condition W35 of EA EPML00862313 or the

¹ Upper Isaac River Catchment fresh waters – Objectives for TSS, turbidity and conductivity are stated in Table 2.

Notice to conduct or commission an environmental evaluation

Water Management Plan (WMP) required under condition W30 of EPML00862313.

14. The department is of the view that the catchment pertaining to the 'low point' includes part of a spoil dump, which is considered to be mine affected water, as per the definition in EA EPML00862313.
15. On 5 and 6 March 2018, authorised officers observed significant amounts of sediment in the dry bed of One Mile Creek at the location described as Ramp 9 haul road, 635077.25mE 7520244.32mS.
16. Authorised officers assessed the depth of the sediments within the bed of One Mile Creek; it was identified that a number of layers (approximately 12cm thick) of sediments were deposited.
17. On 5 and 6 March 2018, sediments were observed on the bed of One Mile Creek, described as the location of One Mile Boundary, 636616.08mE, 7520225.92mS. This location is approximately 30m from the mining lease boundary.
18. On 5 and 6 March 2018, sediments were observed in the bed of Spring Creek, described as the location of Spring Creek Lake Vermont Road Culverts, 637550.15mE 7516199.19mS.
19. On 5 and 6 March 2018, upstream of One Mile Creek was inspected, at the location described as 631225.51mE 7517059mS. Authorised officers did not observe any sediments at this location.
20. The department has conducted a review of the current and former ESCP and WMP provided to the department by BHP Coal Pty Ltd for the purposes of demonstrating compliance with conditions W35 and W30 of EA EPML00862313. The review identified the following matters of concern relevant to the potential environmental harm likely to be caused:
 - a) Page 33 of the document titled 'Water Management Plan (SRM EN12008)' dated 7 September 2018 states *'However, improved management of turbid and saline water from disturbed areas not adequately served with controlled storage structures is ongoing. Some of these areas include saline overburden emplacements, haul roads which are necessarily contaminated to some extent by coal fines arising out of coal haulage and diversions which passage saline spoil areas or which have been excavated through saline subsoils'.*
 - b) Page 34 of the document titled 'Water Management Plan (SRM EN12008)' dated 7 September 2018 states *'Haul Roads – controlling water generated by haul road runoff is a challenge for both the industry and for Saraji Mine. The main haul road is approximately 30km long (to Ramp 0 North to Ramp 15 South) and has a number of uncontrolled creek crossings including from north to south: Hughes, One Mile, Spring and Phillips. There is some indication in the vicinity of road crossings that coal fines are washing from roads and table drains to creeks. The runoff on occasions can be highly turbid and also quite saline'.*
 - c) Page 14 of the document titled 'Environmental Water Management Plan – SRM PLN002 (KM3:5811599)' states *'Improved management of turbid and saline water from disturbed areas not adequately served with controlled storage structures is ongoing. Some of these areas include saline overburden emplacements, haul roads which are necessarily contaminated to some extent by coal fines arising out of coal haulage and diversions which passage saline spoil areas or which have been excavated through saline subsoils'.*
 - d) Page 15 of the document titled 'Environmental Water Management Plan – SRM PLN002 (KM3:5811599)' states *'The SRM Erosion and Sediment Control Plan (ESCP) has been developed to ensure mine affected water is managed in accordance with the EA. Since much of the potential to generate saline water is intimately associated with erosion and sediment control in disturbed areas of the site, the ESCP sets a standard to ensure water run-off is appropriately*

Notice to conduct or commission an environmental evaluation

managed.

- e) A map of catchments within the mine tenure and an excel spreadsheet detailing the catchment names and areas (ha) was provided by BHP Coal Pty Ltd on 31 August 2018. The map provided identifies three (3) areas of which directly report to a receiving waterway.
 - f) The excel spreadsheet further identifies a total area of 575.6ha that is not attributed to a named catchment. Mining activities have been conducted by BHP Coal Pty Ltd within the unnamed catchment area.
21. The department is satisfied that the documents provided by BHP Coal Pty Ltd inform that there is a risk of potential environmental harm and that risk is likely to Hughes Creek, One Mile Creek, Spring Creek and Phillips Creek.
 22. The department is satisfied that it is reasonable that BHP Coal Pty Ltd conduct an investigation to confirm the sources, causes and extent of potential environmental harm likely because of sediment migration resulting from activities conducted under EA EPML00862313.
 23. The department is satisfied that an investigation is necessary for the ESCP and WMP, required through the conditions of EA EPML00862313, to be revised to suitably minimise erosion and the risk of sediment release to receiving waters.

B. Requirements

1. The recipient of this notice must prepare a report on the environmental investigation. The report on the environmental investigation must address the following relevant matters:
 - a) An investigation into the current mine water management system which identifies:
 - i. the environmental values associated with the receiving environment including Hughes Creek, One Mile Creek, Spring Creek and Phillips Creek;
 - ii. the clean and mine affected water catchments as per the definition in the EA, including catchment size, that may flow to Hughes Creek, One Mile Creek, Spring Creek and Phillips Creek during rainfall events;
 - iii. the existing water management and erosion and sediment control infrastructure associated with catchments that may flow to Hughes Creek, One Mile Creek, Spring Creek and Phillips Creek during rainfall events; and
 - iv. the annual exceedance probability (AEP) of the key existing infrastructure identified under Requirement 1(a)(iii).
 - b) A risk assessment, including actual and potential risks, in relation to water management and erosion and sediment control at Saraji Mine. This includes the development of a risk register which:
 - i. describes the risk consistent with the principles of ISO31000;
 - ii. scores the risk based on severity and likelihood; and
 - iii. provides a risk rating for each risk identified and detail how this risk relates to BHP Coal Pty Ltd's corporate risk acceptance criteria.
 - c) A review of the Water Management Plan and the Erosion and Sediment Control Plan to ensure that the documents meet the requirements of EA EPML00862313. The review must:

Notice to conduct or commission an environmental evaluation

- i. provide an audit schedule that clearly specifies the timing and criteria for assessing the ongoing operation and maintenance of all erosion and sediment control measures;
 - ii. provide minimum standards and requirements of sediment control structures; and
 - iii. where appropriate, state the revisions proposed to the Water Management Plan and Erosion and Sediment Control Plan.
2. Where revisions are proposed to the Water Management Plan or Erosion and Sediment Control Plan under Requirement 1(c)(iii), the recipient of this notice must submit revised plans to the administering authority.
3. The recipient of this notice must develop and submit to the administering authority a program of works, as a result of the investigations and reviews required under Requirements 1(a) to (c). The program of works must include:
 - a) Works to be undertaken to mitigate risks identified under Requirement 1(b), and timeframes for completion; and
 - b) Works to be undertaken to construct new erosion and sediment control structures or to bring existing structures into conformance with the new minimum standards and requirements under Requirement 1(c)(ii), and timeframes for completion.

The environmental investigation must be carried out, and the environmental report prepared by an **appropriately qualified person**. An **appropriately qualified person** is defined as a person or persons who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis of performance relative to the subject matter using the relevant protocols, standards, methods or literature.

The environmental report must be submitted to the department on or before: **20 May 2019**.

As the recipient of this notice, you are also required to provide a statutory declaration in the form attached, to accompany the environmental report submitted to the department.

Take notice:

The requirements of the notice to conduct or commission an environmental investigation take effect immediately upon service of this notice;

This notice remains in force until further notice from the department; and

You are responsible for meeting the costs of conducting or commissioning the environmental evaluation, preparing the environmental report and providing any further information as requested by the department.

C. Reviews and appeals

The provisions regarding reviews of decisions and appeals are found in sections 519 to 539 of the Act.

A person, who is dissatisfied with certain decisions of the department may be able to apply to have the department review that original decision.

Generally, a request to have a decision reviewed must:

- be made within 10 business days of the decision being notified to the person;
- be supported by enough information to enable the department to decide the application for review; and

Notice to conduct or commission an environmental evaluation

- be made using the application form, Application for review of original decision ([ESR/2015/1573](#)) available on the Queensland Government website at www.qld.gov.au, using the publication number (ESR/2015/1573) as a search term.

Where an application has been made for a decision to be reviewed, the applicant may also apply to the relevant court for a stay of the decision to secure the effectiveness of the review.

Once the original decision has been reviewed, a person who is dissatisfied with the review decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the review decision.

A person whose interests are or would be adversely affected by a decision of the department may also be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*. For further information about reviews and appeals see the information sheet, internal review and appeals ([ESR/2015/1742](#)) available on the Queensland Government website at www.qld.gov.au, using the publication number (ESR/2015/1742) as a search term.

The information sheets are available on the Queensland Government website at www.qld.gov.au, using the publication number as a search term.

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

D. Penalty

Failure to comply with a notice to conduct or commission an environmental evaluation is an offence.

1. The maximum penalty for an individual is 300 penalty units, totalling \$39,165.00.
2. The maximum penalty for a corporation is 1500 penalty units, totalling \$195,825.00.

Should you have any queries in relation to this notice, please contact Alisha Stewart of the department on telephone number (07) 49996883.



Signature

3 May 2019

Date

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

Enquiries:

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