

Environmental Protection Act 1994

Environmental Protection Order

This environmental protection order is issued by the administering authority pursuant to section 358 of the Environmental Protection Act 1994.

Warwick Gold Holdings Pty Ltd
(ACN 653 306 800)
9 KING JAMES COURT
PARADISE POINT, QLD, 4216

Email: david@wghl.com.au

Your reference: EPML04238116

Our reference: STAT-E-100466727; C-CPLPO-100466032; 101/0019392

5/12/2023

Dear Directors,

Take notice: that under the *Environmental Protection Act 1994* (the **Act**) this environmental protection order (EPO) is issued to Warwick Gold Holdings Pty Ltd (**you**) (ACN 653 306 800) as the mine operator and occupier of mining lease (ML)100106. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

The EPO is issued with respect to activities on mining lease (ML) 100106, situated at Texas, QLD (**the premises**).

A. Grounds

This EPO is issued on the following grounds:

1. To require you to take reasonable measures to secure compliance with conditions of Environmental Authority EPML04238116 (the **EA**) pursuant to section 358(d)(iii) of the Act.

The conditions of the EA which are directly relevant are conditions A3, H17, H20, and H22, which are as follows:

A3 *The environmental authority holder must:*

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- a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority;*
- b) maintain such measures, plant and equipment in a proper and efficient condition;*
- c) operate such measures, plant and equipment in a proper and efficient manner; and*
- d) ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.*

H17 *The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.*

H20 *By 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems).*

H22 *The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.*

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

1. Thomson Resources Ltd (ACN 138 358 728) (**TMZ**) is the holder of the EA and Mining Lease (ML) 100106.
2. EA authorises environmentally relevant activities including mining and associated activities at the premises, subject to the conditions of the EA.
3. EA is currently suspended, however, under section 278B of the Act, all conditions of the EA need to be complied with despite the suspension.
4. The department understands that you entered into a contract to purchase the premises and/or have purchased the premises.
5. On 13 April 2023 TMZ released an Australian Stock Exchange announcement advising of the “effective completion” of the sale of the premises to you.
6. Despite the above, TMZ remains the holder of ML100106 and the EA.
7. TMZ are the subject of two Environmental Protection Orders (EPO), E-100309951 and E-100330352, requiring management of elevated environmental risks associated with the water inventory at the premises.
8. The department understands that on 17 May 2023, you were appointed as the operator of the premises under section 48 of the *Mining and Quarrying Safety and Health Act 1999*.
9. During separate inspection of the premises on 13 July 2023, 12 September 2023 and 13 September 2023 authorised persons confirmed that you were occupying and operating the premises for the purpose of carrying out mining activities. Your representatives advised that you are fully in control of the site with TMZ providing some direction on what action must be taken with respect to water management activities.
10. There is disturbed land and infrastructure on the premises including an open cut pit, waste rock dump, heap leach pads, processing ponds, a processing plant and water storages that have the potential to generate contaminated water and/or seepage.
11. There are significant risks of environmental harm associated with the activities authorised by the EA on the premises. This includes, but not limited to:
 - (a) environmental risks associated with disturbance to the land resulting from the activities;
 - (b) environmental risks associated with the mobilisation of contaminants in rainfall runoff from

- disturbed areas;
- (c) environmental risks associated with the discharge of mine wastes (e.g. process waters); and
 - (d) environmental risks associated with equipment, plant and infrastructure utilised in the carrying out of activities (e.g. residual process chemicals, chemical and fuel storages etc).
12. Active management of these risks is required to mitigate the potential for environmental harm.
13. One of the primary ways by which the environmental risks set out in paragraph 11 above are managed at the premises, is through capturing and containing contaminated water, to prevent the release of contaminated water from the premises.
14. The water storages at the premises that capture and/or contain contaminated water include Terminal Dam and the Process Ponds (Barren, Intermediate and Pregnant), East Dam and East Sump, West Dam and West Sump, the Pit, Middle Dam and New Dam.
15. The department holds data in relation to the contaminated water quality onsite. This water typically contains high acidity (low pH levels), salts and metal concentrations (including zinc, aluminium and copper).
16. The contaminated water is of particularly poor quality, and typically exceeds relevant Australian and New Zealand Guidelines for Fresh and Marine Water Quality guideline levels and the EA authorised contaminant release limits.
17. The environmental values and water quality objectives for the receiving waters are listed in the document titled Queensland Border Rivers and Moonie River basins Environmental Values and Water Quality Objectives (des.qld.gov.au).
18. The premises typically has a positive water balance which if unmitigated, results in the accumulation of contaminated water.
19. The contaminated water stored and generated at the premises needs to be actively and appropriately managed, such that it does not accumulate to a point where an uncontrolled and/or unlawful release occurs to the receiving environment.
20. Such a release occurred on 1 and 2 December 2021, when there was an uncontrolled release of contaminated water. This release occurred from East Dam. East Dam water at the time had a low pH of approximately 3, high level of electrical conductivity, and contained a range of heavy metals that exceeded many of the published guideline values in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality.
21. The release was estimated as being 1.15ML in volume. The contaminants released were in excess of the release limits authorised for release under condition F3 of the EA.
22. Water storages at the premises, referred to in paragraph 14 above (with the exception of West Sump and New Dam) were the subject of a report titled 'Warwick Gold Pty Ltd 2022 Regulated Dams Inspection, 25 July 2023 (the Report).
23. The Report states that *"Warwick Gold Pty Ltd engaged Engeny to carry out the 2022 annual inspection the regulated structures onsite at the Texas Silver Project. The inspection was carried out in accordance with the Queensland Government Department of Environment and Science (DES) requirements as set out in the Environmental Authority (EA) EPML04238116. The inspections for 2022 have been undertaken retrospectively with inspections completed in April 2023 due to sale of the site."*

24. The Report states that “*hydraulic compliance of each structure was assessed against the hydraulic performance requirements documented in the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (DES, 2016) (the Manual) and the Environmental Authority.*”
25. The Manual sets out the department’s requirements for consequence category assessment and certification of the design of ‘regulated structures’.
26. The Report notes that the consequence categories for the majority of structures were last assessed in 2018 (Water Solutions, 2018) with West Dam reassessed in 2021 (Engeny, 2021).
27. The Report assigned consequence categories for relevant water storages as follows:

Structure	Failure to Contain – Overtopping	Failure to Contain – Dam Break	Overall Consequence Category
Terminal Dam & Process Ponds	High	High	High
East Dam	Significant	High	High
East Sump	Significant	High	High
The Pit	High	N/A – no plausible failure mode	High
West Dam	Significant	Significant	Significant
Middle Dam	Significant	Significant	Significant

28. Given the consequence category, each of these water storages is a regulated structure.
29. A minimum available storage, called a Design Storage Allowance (DSA) is required to be estimated for regulated structures in accordance with the Manual.
30. The hydraulic performance requirement for each of the regulated structures as per the Manual is provided in the Report as follows:

Structure	Minimum Spillway Capacity	Design Storage Allowance (DSA)	Mandatory Reporting Level (MRL)
Terminal Dam & Process Ponds	1:1,000 AEP	1:100 AEP	1 in 100 AEP 72hr
East Dam	1:1,000 AEP	1:20 AEP	1 in 10 AEP 72hr
East Sump	1:1,000 AEP	1:20 AEP	1 in 10 AEP 72hr
The Pit	N/A	1:100 AEP	1 in 100 AEP 72hr
West Dam	1:100 AEP	1:20 AEP	1 in 10 AEP 72hr
Middle Dam	1:100 AEP	1:20 AEP	1 in 10 AEP 72hr

31. The MRL is a level at which the dam has a remaining available volume equivalent to the extreme storm storage (ESS) allowance. This available storage is critical to manage the risk associated with short duration intense rainfall events.
32. On-site water management must allow for and provide the DSA volume in each regulated structure going into each new wet season (that is, on 1 November each year).
33. The intent of a DSA volume is to provide reasonable certainty that design performance criteria for containment will be met in any forthcoming wet season. Failure to ensure a regulated structure achieves the required DSA volume at the onset of each wet season (that is, on 1 November each year) poses a heightened risk of an uncontrolled contaminant release.
34. As the operator, WGH is required to comply with section 430 of the Act and conditions of the EA.

35. Section 430 of the Act requires that a person acting under an environmental Authority must not contravene a condition of the authority. Relevant to this EPO are conditions H17, H20 and H22 of the EA that the operator (you) are required to comply with. These conditions are as follows:

- a) **H17** The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.
- b) **H20** By 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems).
- c) **H22** The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.

36. From information provided by WGH on 3 November 2023, as of 2 November 2023, DSA was not achieved for Terminal Dam and Mining Pit (Table 1). This water level is considered to be representative of 1 November 2023, as no rainfall occurred between 1 and 2 November. Failure to meet DSA by 1 November is an alleged contravention of condition H20.

Table 1

Structure	DSA Volume calculated by Engeny 2023	Capacity as of 2 November 2023	Compliance with DSA	MRL/ESS calculated by Engeny 2022	Exceedance of MRL/ESS
Terminal Dam & Process Ponds	197.4	68.79ML	Non-compliant	77.1 ML	Yes
East Dam	13.9 ML	8.87ML	Compliant	3.1 ML	Yes
East Sump	Combined with East Dam	6.43ML		21.9 ML	
The Pit	46.7ML	32.51ML	Non-compliant	27.2 ML	No
West Dam	27.9ML	89.83ML	Compliant	58.9 ML	No
Middle Dam	1.3 ML	9.26ML	Compliant	3.0 ML	No

37. As of 1 November 2023, MRL was exceeded for Terminal Dam and East Dam/Sump, yet limited to no water reduction measures were being undertaken on site in recent months.

38. During a site inspection on 13 July 2023, representatives of WGH advised that WGH was unable to further increase the evaporation use on site due to financial constraints.

39. As of 30 November 2023, Terminal Dam and Process Ponds, East Dam, East Sump and the Pit continue to have very significant water inventories with insufficient storage capacity for the 2023/2024 wet season (commencing 1 November) as either the DSA volume or ESS/MRL volume (or both) has not been met. These structures are at risk of release.

40. Considering the current water reduction measures employed by you, it is the department's assessment that you will not be prepared for and have sufficient available storage during the 2023/2024 wet season. This is despite E-00309951 and E-100330352 being issued to the EA holder.
41. A release from East Dam or Terminal Dam would migrate into the headwaters and drainage lines of Alpin Creek and eventually the Dumaresq River.
42. The Dumaresq River supports significant environmental and agricultural values and flows across the border into NSW. It forms part of the Border Rivers Catchment which is one of the northern-most catchments for the Murray-Darling Basin.
43. As of 2008, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) reported on average 34% of available surface water within the Border Rivers Catchment was extracted for use. Land use is dominated by cattle and sheep grazing predominantly on the tablelands and western plains, with dryland crops grown on the slopes (source: <https://www.mdba.gov.au/water-management/catchments/border-rivers>).
44. In October 2016, the Department of Science, Information Technology and Innovation undertook a water quality and biological assessment of Alpin Creek Catchment. It was found that *"Alpin Creek and its tributaries appears to have good water quality and be in moderate ecological health, containing diverse and abundant aquatic biota. Any alteration to the water quality downstream of the Texas Silver Mine has the potential to disturb and alter a potentially significant aquatic ecological community"*.
45. BOM seasonal outlook issued 10 August 2023 indicates a drier and warmer spring for eastern Australia. However, BOM also indicates that for the Texas region, there is between a 40 – 50% chance of exceeding median rainfall.
46. From 3 November 2023 – 20 November 2023, the DES' electronic weather station recorded approximately 118mm of rainfall at the premises. This is significantly greater than the average November rainfall of 67.2mm.
47. It is considered that any release of contaminated water in appreciable quantities from the premises is likely to cause serious or material environmental harm to the downstream environment.
48. The department considers that additional measures are available to you to manage the contaminated water inventory, to prevent or minimise environmental harm, to meet the obligations outlined in the Manual, and to secure compliance with conditions of the EA.
49. The department considers this includes measures such as
 - a) installing appropriate pumping and transfer capacity and associated redundancy;
 - b) operating and increasing enhanced evaporation capacity at the premises; and
 - c) operating and increasing water treatment activities and capacities at the premises.
50. On the basis of the information set out in facts and circumstances, the department considers that it is reasonable to require you to take further action in order to secure compliance with conditions of the EA, such that premises is prepared for the 2023/2024 wet season.

B. Requirements

Requirements 1 – 13 apply at all times that you occupy the premises.

1. You must notify the administering authority in writing prior to vacating occupation of the premises.
2. On and from the date of this EPO, you must take all necessary actions to prevent an unlawful release of contaminants from the premises.
3. At all times you must have available:
 - a) appropriately qualified and experienced staff to ensure compliance with this EPO and EA conditions;
 - b) measures, plant and equipment necessary to ensure compliance with this EPO and EA conditions; and
 - c) fuel supplies and access to power to ensure the ongoing operation of measures, plant and equipment to ensure compliance with this EPO and EA conditions.
4. You must not, without the department's prior written approval, dispose of, materially alter, or remove any measures, plant, and equipment on the premises, necessary to ensure compliance with the requirements of the EPO or EA conditions.
5. You must not, without the department's prior written approval, dispose of, materially alter, or remove any measures, plant, and equipment on the premises that reasonably reduces the risk of an unauthorised release of contaminants from the premises.
6. All measures, plant and equipment necessary to ensure compliance with this EPO and EA conditions must be maintained in a functional and operable manner.
7. By 22 January 2023, install additional transfer and pumping capacity within the East Dam catchment, to ensure that you have available at all times, sufficient water transfer capacity to regulated structures on the premises, to manage an ESS sized event without release from East Dam. A report must be submitted to the department by this date with confirmation from a Registered Professional Engineer of Queensland who is a suitably qualified and experienced person, that pumping infrastructure installed can manage an ESS sized event.
8. On and from the date of this EPO, you must have in place and operational in or adjacent to the Pit (or another location as approved by the department), enhanced evaporators that have an individual minimum flow rate of 12.5 litres per second (l/s) and a minimum combined effective water destruction capacity of 17.67 l/s.
9. On and from the date of this EPO, you must have in place and operational, an effective evaporative irrigation system covering to the extent practicable, the full surface area of Heap Leach Pad 4. You must use your best endeavours to quantify the volume of water removed via evaporation through operation of this system (in litres per second).
10. All contaminated water removed under Requirement 8 and 9 must be done in a way that minimises the potential for environmental harm and in accordance with the EA.
11. Requirements 8 – 9 continue in effect until such time as a Registered Professional Engineer of Queensland who is a suitably qualified and experienced person, confirms that each of the regulated structures on the premises has available storage volume to meet the relevant DSA and ESS/MRL obligations as per the EA and the Manual.

12. On and from the date of this EPO, all enhanced evaporators and evaporative irrigation systems on the premises must be operated at all times during daylight hours, unless it is not safe to do so, it is raining or they are under scheduled maintenance. The time and reason for non-operational periods must be recorded.
13. From the date of this EPO until such time as each of the premises regulated structures have sufficient storage capacity to contain an MRL/ESS event, you must provide a written report to the department weekly by 10am each Friday, on the actions taken to comply with this Notice. The report is to be sent to southwest.es@des.qld.gov.au. The weekly report must include at a minimum:
 - a) daily rainfall totals for the premises for the reporting period;
 - b) an updated and accurate assessment certified by a suitably qualified person of the water storage capacity and water volumes (ML) within each regulated structure and New Dam and the reduced levels (RLs) (mAHD) for water level; and
 - c) for the weekly reporting period, the estimated daily volume of water removed from the water inventory, listed for each day, separated by each method, including details of the measurements, calculations and assumptions that the estimate is based; and
 - d) records made of any non-operational periods of enhanced evaporators and/or evaporative irrigation systems per requirement 8.

C. Obligations

If you propose to dispose of the place or business to which the EPO relates, you **must** advise the buyer of the existence of this EPO.

If you cease to carry out the activity to which this EPO relates, you **must** give written notice of ceasing to carry out the activity to the department within 10 days of ceasing the activity.

Take notice:

- the requirements of this order take effect immediately upon service of the order;
- failure to comply with this order is an offence under the EP Act;
- this order remains in force until further notice from the administering authority.

D. Penalty

It is important that you know the impact to you personally as an individual or as a corporation for not meeting your obligations.

Failure to comply with an EPO is an offence.

- The maximum penalty for a corporation for wilfully contravening an EPO is 31,250 penalty units, totalling \$4,837,500 .
- The maximum penalty for a corporation for contravening an EPO is 22,500 penalty units, totalling \$3,483,000.

Failure to provide written notice to the buyer of the existence of the order is an offence.

- The maximum penalty for a corporation is 250 penalty units, totalling \$38,700.

Failure to provide written notice within 10 business days of ceasing the activity to the department is an offence.

- The maximum penalty for a corporation is 250 penalty units, totalling \$38,700.

Section 3 of the *Penalties and Sentences Regulation 2015 (Qld)* prescribes the monetary value of a penalty unit.

E. Reviews and appeals

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

A person who is dissatisfied with an original decision made by the Department of Environment and Science (the department) may apply to have that decision internally reviewed.

Information about initiating an appeal in relation to this notice is contained within the [Internal Reviews and Appeals Information Sheet](#) (available at www.qld.gov.au using the publication number ESR /2015/1742 as a search term)

A request for review or appeal is to be made using the approved form '[Application for review of original decision](#)' (available at www.qld.gov.au using the publication number ESR/2015/1573 as a search term.

Applications for reviews are to be sent to Permit and Licence Management, Department of Environment and Science: via email at palm@des.qld.gov.au , or by mail to the following address: GPO. Box 2454, Brisbane, QLD, 4001.

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 be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

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

Pursuant to section 540 of the Act, the department is required to maintain a register of certain documents and information authorised under the Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the Act. There is no general discretion allowing the department to withhold documents or information required to be kept on the public register. For more information on the department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

Should you have any queries in relation to the notice, please contact Alison Walton on 4529 8308.

Notice
Environmental Protection Order

Tariq Khan

Signature

5/12/2023

Date

Tariq Khan

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

Enquiries: Alison Walton
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