Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Works Approval Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Works Approval Number	W6707/2022/1
Works Approval Holder	Anax Metals Limited
ACN	106 304 787
File Number	APP-0031008
Premises	Whim Creek Copper Project Mining Leases M47/236, M47/237, M47/238, M47/443 North Coastal Highway WHIM CREEK WA 6718 As defined by the coordinates in Schedule 2 of the Revised Works Approval As defined by the Premises maps attached to the Revised Works Approval
Date of Report	09 October 2025 **(FINAL)**
Decision	Revised works approval granted

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1. Decision summary

Works Approval W6707/2022/1 is held by Anax Metals Limited (Works Approval Holder) for the Whim Creek Copper Project (the Premises), located at: Mining Leases M47/236, M47/237, M47/238, M47/443, North Coastal Highway, WHIM CREEK WA 6718.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Works Approval W6707/2022/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Amendment summary

On 03 September 2025, the department initiated an amendment to Works Approval W6707/2022/1 to incorporate the following changes:

- requiring additional investigations to study groundwater contamination at the Whim Creek Copper Project.

This amendment is limited only to implementing additional investigations for groundwater contamination at the site.

2.2.1 Environmental Protection Notice

In April 2019, DWER issued an Environmental Protection Notice (EPN) Reference No: DWERDG804/19 as there was *"reason to suspect emissions of heavy metals and highly acidic process waters have caused or likely to cause pollution, being a direct alteration of the environment to its detriment".*

An EPN is a statutory notice under s.65 of the *Environmental Protection Act 1986* given where it is suspected that there is, or is likely to be, an emission that has caused, or is likely to cause, pollution or environmental harm (ongoing). The EPN may require the persons served (being the owner or occupier or both) to take necessary measures in a specific time period to investigate, prevent and control the emissions from the premises.

The EPN required the following management plans be implemented:

- Heap Leach Facility Management Plan;
- Permeability Management Plan;
- Stormwater Management Plan;
- Groundwater Monitoring Plan; and
- Vegetation Monitoring Plan.

Several actions were identified in the management plans which resulted in major infrastructure upgrades including, but not limited to:

- Completion of integrity surveys and repairs of the existing HDPE liner at the Solution Storage Ponds 1-5 and the W-Drain between the ponds and the heap leach pad;

- Construction of a new HDPE Process Water Pond (Pond 6) within the footprint of the existing Environmental Pond;
- Remediation of the compacted clay liner of the existing Environmental Pond to ensure a low permeability liner with a hydraulic conductivity of less than $1x10^{-9}$ m/s; and
- Alteration of stormwater bunding to divert clean runoff around the Environmental Pond, thereby providing greater storage for stormwater from the processing footprint.

The Heap Leach Facility Management Plan, Permeability Management Plan and Stormwater Management Plan were endorsed by DWER and improvement actions conducted.

Monitoring required by the Groundwater Monitoring Plan and Vegetation Monitoring Plan have continued, as required by condition 2 of this works approval, following the revocation of the EPN.

2.2.2 Condition 2 Groundwater Monitoring Plan

The following reports were considered by the Department's Contaminated Sites Branch (CSB) and the Terrestrial Ecosystems Branch (TEB) for technical advice provision:

- Q1 Groundwater Monitoring Event – March 2024;
- Q2 Groundwater Monitoring Event – June 2024;
- Q3 Groundwater Monitoring Event – September 2024;
- Q4 Groundwater Monitoring Event – December 2024;
- 2025 January Stygofauna Monitoring Survey;
- 2024 November Stygofauna Monitoring Survey;
- 2024 February Stygofauna Monitoring Survey; and
- 2023 November Stygofauna Monitoring Survey.

Based on the advice received, additional measures are required to limit the potential impacts of groundwater contamination on environmental receptors at the Whim Creek Copper Project. A collaborative approach needs to be considered to ensure that provisions of both Part V of the EP Act, and the *Contaminated Sites Act 2003* (CS Act) are addressed (noting that the site is classified as 'possibly contaminated – investigation required' under the latter legislation).

DWER provided the recommendations to the Works Approval Holder on 30 June 2025 and the Works Approval acknowledged the issues that were raised and committed to measures to address them on 01 August 2025.

Table 1 shows the commitments and requirements of ongoing monitoring at the site.

Table 1: Monitored Natural Attenuation (MNA) and Stygofauna Program

Item	Requirement
Groundwater	Sampling methodology, including deployment timing, is to be documented in more detail so that compliance with the relevant methodologies can be more clearly demonstrated.
	A Monitored Natural Attenuation (MNA) program is to be implemented in accordance with DWER's MNA guidelines: *Use of monitored natural attenuation (MNA) for groundwater clean-up*, Contaminated sites guidelines, Department of Water and Environmental Regulation, April 2018. https://www.der.wa.gov.au/images/documents/our-work/consultation/MNA_Guideline/Guideline_Use-of-monitored-natural_attenuation-MNA-for-groundwater-clean-up_final-draft-A1652204.pdf

Item	Requirement
	The MNA program is to be documented in a MNA Plan, which will include, but not be limited to, the following: • Monitoring frequency; • Analytical suite, including MNA parameters; and • Methodology for evaluating the long-term viability of MNA.
Stygofauna	All stygofauna specimens will be identified to the lowest practical taxonomic level, including the use of genetic sequencing to determine the current species diversity and allow for ongoing meaningful comparison between monitoring events.
	Specialist morphological identification of amphipods to be undertaken by qualified taxonomist.
	Data should be provided in a suitable format to identify trends and statistical analysis. To facilitate assessing monitoring adequacy, the presence/absence of each species in each survey phase is to be included in a single table. Identifications are to be updated in the table as further resolution of taxonomy becomes available through sequencing and morphology. Declines in species' abundances has been relatively uniform across both the contaminated and reference sites, which would suggest a broader factor influencing the populations above and beyond the contamination. This is to be addressed in future sampling
	The monitoring program is to continue to assess the data available and consider the use of additional bores further from the contamination plume to allow for natural variation to be better assessed in future reports.
	Species data is to be shown for each sampling round on a figure and include the current contamination plume modelling.

The works approval holder has stated that they are committed to implementing a groundwater remediation plan. However, propose that a groundwater remediation plan is prepared once the viability of MNA has been established. Whether or not MNA is viable will ultimately inform the long-term remediation method. The works approval holder aims at assessing the viability of MNA over the next 6 - 12 months with the viability of the program reported to DWER.

This assessment is based on technical advice sought and recommendations provided and, therefore, does not require an additional environmental risk assessment.

3. Consultation

Table 2 provides a summary of the consultation undertaken by the department.

Table 2: Consultation

Consultation method	Comments received	Department response
Works Approval was provided with draft amendment on 11 September 2025	The Works Approval Holder responded on 30 September 2025. The Works Approval Holder requested that Condition 3, Table 1 be changed so the program commences in December 2025 (Q4) rather than September 2025 (Q3), due to timing associated with the contaminated site consultants and given the Q3 monitoring event has concluded.	DWER has made the requested change.

4. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Works Approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

4.1 Summary of amendments

Table 3 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Works Approval as part of the amendment process.

Table 3: Summary of works approval amendments

Condition no.	Proposed amendments
3, Table 1	Addition of Monitored Natural Attenuation (MNA) Program conditions for Groundwater and Stygofauna as per Table 1 of this Amendment Report.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.