Government of Western Australia
Department of Water and Environmental Regulation

Murujuga Rock Art Monitoring Program: Government response to the *Interim Environmental Quality Criteria Update 2025*

August 2026

The release of the revised *Murujuga Rock Art Monitoring Program: Interim Environmental Quality Criteria Update 2025* (Interim EQC Update 2025) marks an important update in the implementation of the *Murujuga Rock Art Strategy* (the Strategy), the protection of the Aboriginal rock art at Murujuga and informing the UNESCO World Heritage reporting process for the newly inscribed Murujuga Cultural Landscape.

The Interim EQC Update 2025 supersedes the Interim EQC released in May 2025 and reflects revised scientific analysis based on three years of laboratory investigations, field monitoring and modelling, as well as independent peer review. These refinements do not alter the environmental objectives of the Strategy or existing regulatory requirements.

The *Murujuga Rock Art Strategy* commenced in 2019 and provides a transparent, risk-based and adaptive framework for monitoring and managing environmental quality to protect the rock art on Murujuga from anthropogenic emissions. The implementation of the Strategy and the Murujuga Rock Art Monitoring Program (Program) are delivered in partnership between the Murujuga Aboriginal Corporation and the State Government for protection of the Murujuga rock art. The environmental objective remains the maintenance of environmental quality to ensure that weathering of the rock art is not accelerated beyond natural rates by anthropogenic emissions.

The Interim EQC Update 2025 refine the benchmark guideline and standard criteria against which environmental monitoring data are assessed. The Interim EQC Update 2025 includes revised air pollutant-specific criteria and introduces interim deposition pH criteria (for both wet and dry deposition). Development of a combined weatherability index, for possible inclusion in the final EQC, is also discussed.

Assessment of monitoring data collected under the program against the updated Interim EQC indicates that no exceedances of interim ambient air quality guidelines or standard criteria.

This year an Interim EQC for deposition pH has been included. Although pH has been identified as a significant parameter to be investigated, research continues to improve the understanding of this parameter.

Reporting against the Interim EQC Update 2025 will continue under the *Murujuga Rock Art Monitoring Program*. The Program will continue to undertake routine monitoring and assessment to identify trends and inform refinement to support delivery of the final EQC.

The obligations of approval holders under Part IV and Part V of the *Environmental Protection Act 1986* (EP Act) and under the *Environment Protection and Biodiversity Conservation Act 1999* remain unchanged. The Interim EQC Update 2025 are scientific benchmarks used to guide monitoring and management responses and do not replace or alter existing regulatory approval conditions.

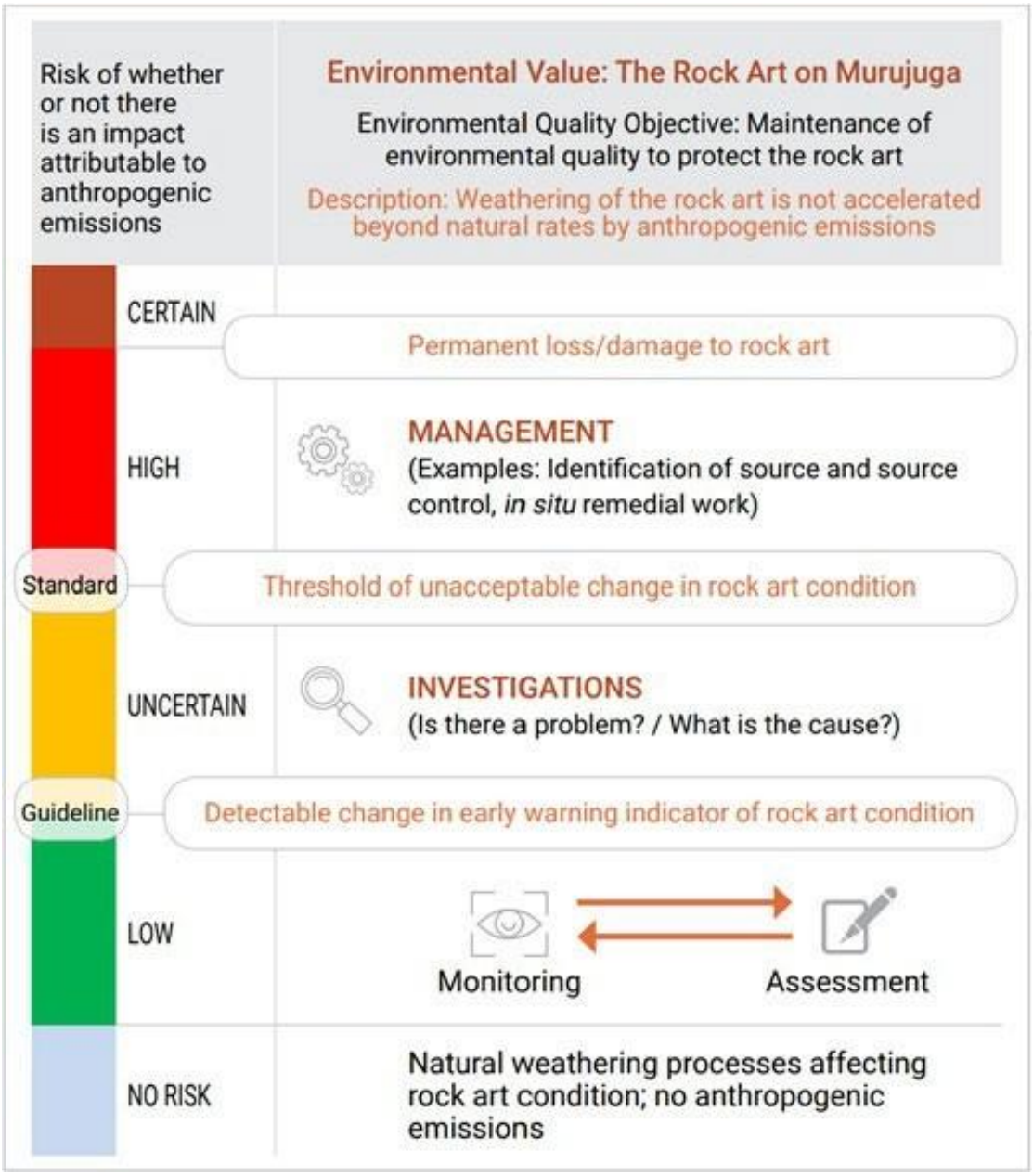
Frequently asked questions

Murujuga Rock Art Strategy management framework and Interim EQCs

How does the Environmental Quality Management Framework work?

The management framework is set out in the **Murujuga Rock Art Strategy**. It provides managers and decision-makers with information to support timely and proportionate management responses before potential loss or damage to the rock art occurs.

The framework uses scientifically derived Environmental Quality Criteria as benchmarks. Monitoring data will be compared against the final guideline and standard criteria and the outcome of that comparison determines the appropriate management response, as illustrated in the following figure:



What are ‘guidelines’ and ‘standards’?

There are two types of EQC: environmental quality ‘guideline’ and environmental quality ‘standard’.

Guideline values are set to provide an early warning of potential change. They indicate when further investigation may be required to understand whether a trend or issue is emerging.

Standard EQC represents levels above which there is sufficient evidence that the risk of unacceptable impact increases and a management response may be required to prevent potential environmental harm.

Why do we only have ‘interim’ criteria?

When the Murujuga Rock Art Strategy was developed, there were no existing benchmarks for protecting engraved rock art from anthropogenic emissions that could be directly adopted as EQC.

The Strategy therefore established a staged approach allowing interim criteria to be developed using the best available scientific information, while further research continued. The interim criteria will continue to be refined as additional monitoring data and research outcomes become available and will inform the development of the final EQC. Final EQC are anticipated in 2027.

Are the EQC enforceable?

It is important to note that criteria define the scientifically-based limits of ‘acceptable’ change to environmental quality. They do not represent pollution levels that trigger enforcement action if exceeded; nor do they infer it is acceptable to ‘load up’ the environment to these levels.

Avoidance and minimisation strategies should always be adopted, and the WA Government encourages continual improvement in emissions management wherever practicable.

Pollution levels which do trigger enforcement are set out in the conditions of approval granted under Part IV and Part V of the *Environmental Protection Act 1986* (EP Act, WA) or under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (Cth).

The WA Government’s management response to exceedances of the final guidelines or standards will be in accordance with the Environmental Quality Management Framework set out in the Strategy. The Environmental Quality Management Framework does not replace the requirements of individual approvals granted under Part IV and Part V of the EP Act (WA) or under the EPBC Act (Cth).

How does the WA Government regulate pollution emitted by industries at Murujuga?

Existing and proposed industry operating on Murujuga is regulated under the *Environmental Protection Act 1986* (EP Act).

Approvals granted under Part IV of the EP Act for operations at Murujuga have included conditions designed to protect the rock art, including to ensure that no air emissions from the proposal have an adverse impact accelerating the weathering of the Murujuga rock art beyond natural rates.

Emissions and discharges from prescribed premises listed in Schedule 1 of the *Environmental Protection Regulations 1987* are regulated through works approvals and licences under Part V Division 3 of the EP Act. Works approvals and licences are subject to conditions that aim to prevent unacceptable impacts to the environment and public health and to ensure emissions are appropriately managed.

When necessary, the Department of Water and Environmental Regulation (DWER) undertakes licence reviews (as outlined in the *Guideline: Industry Regulation licence reviews*) to ensure regulatory controls remain current, effective and aligned with contemporary scientific understanding, policy and risk.

DWER may amend a licence at any time to:

- vary the conditions that apply to a licence;
- remove redundant or superseded conditions; or
- impose new conditions or requirements where necessary to manage environmental risk.

It is an offence under the EP Act to fail to comply with the conditions of Ministerial Statements, works approvals or licences. The Western Australian government actively monitors compliance and responds to non-compliance in accordance with its Compliance and Enforcement Policy.

Where are the updated Interim EQCs for NO_2, SO_2 and NH_3?

Section 3, Table 1 of the updated Interim EQC, contains the revised Interim EQCs for NO_2, SO_2 and NH_3.

Where are the figures comparing air quality monitoring data collected under the Program with the Interim EQC Update 2025?

Appendix A-2. Application of new air quality EQC to existing data from MRAMP passive samplers and powered gas analysers in the updated Interim EQC.
A.2.1 – Passive sampler data
A.2.2 – Powered and passive sampler data