



Environmental Protection Act 1986

Hon Reece Whitby MLA
Minister for Environment; Climate Action

MINISTER'S APPEAL DETERMINATION

APPEALS AGAINST REPORT AND RECOMMENDATIONS OF EPA REPORT 1705 – PERDAMAN UREA PROJECT

Purpose of this document

This document sets out the Minister's decision on appeals lodged under section 100(1)(d) of the *Environmental Protection Act 1986* in objection to the above report. This document is produced by the Office of the Appeals Convenor for the Minister but is not the Appeals Convenor's own report, which can be downloaded from the Appeals Convenor's website at www.appealsconvenor.wa.gov.au.

Appellants:	Ms Janet Hummerston, Ms Dianne Fruin, Ms Mary Gray, Ms Linda du Boulay, Ms Celine Lai, Prof Jaynie Anderson AM, Friends of Australian Rock Art (Inc), Ms Eileen Whitehead, Mrs Susan Swain, Mr David Hummerston, Ms Kathy Fenner, Dr John L Black, Mr Ian Fletcher, Dr Janet Fletcher, Prof Carmen Lawrence, 350 Boorloo Perth, Mr Robert Day, Conservation Council of Western Australia, Ms Pam Nairn, Ms Pamela Fruin
Proponent:	Perdaman Chemicals and Fertilisers Pty Ltd (Perdaman)
Proposal description:	Perdaman intends to construct and operate a urea plant with a production capacity of approximately 2 million tonnes per annum (Mtpa) on Sites C and F within the Burrup Strategic Industrial Area on the Burrup Peninsula. Both sites are located adjacent to the Murujuga National Park.
Minister's Decision:	The Minister allowed the appeals in part
Date of Decision:	21 January 2022

REASONS FOR MINISTER'S DECISION

The Minister received twenty appeals in objection to the report and recommendations of the Environmental Protection Authority (EPA) in respect to the proposal.

The proposal is for the development of an ammonia and urea plant on Burrup Peninsula adjacent to Murujuga National Park.

The concerns raised by appellants included concerns about how the EPA assessed air quality and impacts to rock art and human health; greenhouse gas emissions; flora and fauna; amenity and impacts to registered Aboriginal sites.

Minister's decision

Having considered the information before him, including the EPA's response to the appeals and the Appeals Convenor's report, the Minister determined that, while there are a number of uncertainties raised by the EPA's assessment of the proposal, he did not consider it necessary to remit the proposal for further assessment. Instead, the Minister determined to vary the EPA's recommended conditions to better reflect the concerns raised with the proposal and to make clear that (should the proposal be approved for implementation) the proponent would be required to ensure continuous improvement through periodic review and implementation of best available technologies and standards and meet future strict emission limits, particularly in respect to rock art and greenhouse gas emissions as required.

To provide confidence in protecting rock art in particular, the Minister has required the baseline monitoring, trigger criteria and management/contingency responses developed by the proponent under its air quality management plan to be subject to an independent peer review or reviews before that plan is submitted to the Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) for approval. This will ensure greater confidence in the robustness of those requirements.

The Minister has also required the proponent to report exceedances of threshold trigger levels, once established, within shorter times than recommended by the EPA to provide early feedback to the CEO on potential risks.

The full reasons for the Minister's decision follow.

Rock art

There is uncertainty as to whether industrial emissions are impacting rock art. It is also uncertain as to whether the emissions from this proposal, particularly ammonia and urea emissions, will impact on rock art. The EPA's approach to this uncertainty was to recommend a condition mandating no impact to rock art and requiring the proponent to undertake certain work before commencement of operations, including establishing a 'robust baseline' in respect to impacts to rock art from its contribution to pollutants within the airshed. The EPA's recommendation includes a requirement that the proponent develop criteria that would be used to trigger measures to ensure rock art is protected, such as installation of additional pollution control equipment.

In addition to the proponent's own criteria, the EPA said that the proponent should also be required to comply with any detailed air quality standards, derived from the results of the Murujuga Rock Art Monitoring Program (MRAMP), to ensure that there are no adverse impacts accelerating the weathering of rock art within Murujuga beyond natural rates.

While the EPA expects MRAMP air quality standards to be available before the proposal commences operations, in response to the appeals it advised that it did not rely on those standards being ready to find the proposal was likely consistent with its objectives. This was because of the standalone requirements for the proponent to develop its own criteria and management responses, described above.

To provide assurance that any proponent-developed criteria are scientifically valid and robust, the Minister agreed with the Appeals Convenor that the conditions recommended by the EPA should be varied to require the proponent to engage independent peer review or reviews to ensure:

1. the methodology for the baseline modelling is scientifically valid and robust and will be effective at ensuring the outcome of no impact to rock art can be achieved; and
2. the trigger criteria and management actions included in the air quality management plan are scientifically valid and robust and will be effective at ensuring the outcome of no impact to rock art is able to be achieved.

The Minister has also agreed with other changes recommended by the Appeals Convenor, being to require reporting of any exceedance of a 'threshold' criteria to the CEO within 48 hours of occurrence and that any proposed change to the air quality management plan relating to matters considered by one or both of the above peer reviews be the subject of a further peer review at that time.

The Minister was satisfied these changes provide greater certainty that the outcome set by the EPA will be met. In coming to this decision, the Minister acknowledged that protection of rock art is paramount, and that the conditions recommended by the EPA contemplate that the proponent may be required to fit additional pollution control equipment or change processes to reduce emissions based on the outcomes of the future studies.

Greenhouse gas emissions

Unmitigated, the proposal would emit around 52 million tonnes (Mt) of scope 1 carbon dioxide equivalent (CO₂-e) to the atmosphere over its life.

The proponent provided a revised Greenhouse Gas Management Plan (GHGMP) to the EPA as part of the assessment. This plan set out a trajectory to reduce emissions to net zero commencing in 2030. Over the life of the proposal, the proponent's revised commitment would see residual net scope 1 emissions of 9.75 Mt CO₂-e. The EPA considered that this revised limit and the (at worst) approximately linear trajectory was generally consistent with its Greenhouse Gas Emissions Environmental Factor Guideline and recommended it be included as a condition of approval.

Overall, the Minister considered that the EPA's assessment was satisfactory and it will be a consideration for decision-makers under section 45 of the *Environmental Protection Act 1986* (the Act) as to whether the residual emissions from this proposal are acceptable. In considering this issue, the Minister noted that the approach recommended by the EPA contemplates the limits set in condition 3-1 as a current maximum, but that evolving science and policy may require more significant reductions in the future. In this regard, the Minister noted the EPA's proposed wording of the conditions includes the power for the CEO to request a review of the GHGMP at any time (in addition to the power for the Minister to seek a review of the conditions under section 46 of the Act).

The Minister also noted that proposed condition 3-3 requires that the proponent submit a revised GHGMP to the CEO for approval. Among other things, this plan requires that the proponent identify and describe any measures that the proponent will implement to avoid, reduce and/or offset greenhouse gas emissions from the proposal. Consistent with the EPA's Greenhouse Gas Emissions Environmental Factor Guideline, all reasonable and practicable measures to avoid and reduce emissions should be considered and applied before relying on carbon offsets. It is the Minister's expectation that, in reviewing and approving revisions of the GHGMP, the CEO of DWER will ensure that this mitigation hierarchy is adequately reflected in the plan.

It follows from the above that the Minister dismissed this ground of appeal consistent with the Appeals Convenor's advice. A final decision on the proposal will be made by decision-makers under section 45 of the Act.

Human health

The EPA found that emissions to air from the proposal (in combination with all other sources) were below relevant health guidelines with the exception of particulate matter. On the latter, while the implementation of the proposal is predicted to see exceedances of health guidelines at public receptor locations near the plant, the EPA observed this is mainly due to existing natural background particulate levels.

The Minister noted the Appeals Convenor's advice that, while the EPA's assessment was generally appropriate, during upset (non-routine) conditions, the proposal will be responsible for a higher proportion of cumulative particulate emissions at sensitive receptors than considered by the EPA. Nonetheless, the proposal's contribution is still below 20 per cent of the ambient standard in a worst-case scenario, which is not inconsistent with the EPA's advice that the proposal is a relatively minor contributor to total emissions.

In relation to ammonia, while the EPA found that the health guidelines would not be exceeded, the Minister understood that additional modelling is being undertaken to address information received by DWER in respect to the existing Ammonia Plant emissions.

The Minister accepted the EPA's advice that the new modelling would not have changed its assessment based on DWER's reassurance that it will ensure future ammonia emissions comply with health guidelines. As such, the Minister did not consider it necessary for the proposal to be reconsidered by the EPA. In coming to this view, the Minister noted the EPA's advice that modelling conducted by Perdaman showed emissions from the proposal alone are well below the published health criteria in all operational scenarios. It follows that the Minister considered the EPA has appropriately considered risks to human health.

The Minister requested that DWER communicates the results of the updated modelling, once available, to the Murujuga Aboriginal Corporation and the community in Dampier and Karratha. If the updated modelling suggests health guidelines have been exceeded in the past the Minister has asked DWER to communicate with the local community as to the steps it is taking to ensure that health guidelines will be met into the future.

Amenity

Some appellants raised concerns about the visual and noise impacts from the proposal, including from increased vehicle movements on the surrounding landscape.

The Minister considered the Appeals Convenor's advice in respect to these matters and agreed that the EPA's assessment of noise, traffic and visual impacts was satisfactory. Specifically, the proposal is predicted to comply with the assigned noise levels in the *Environmental Protection (Noise) Regulations 1997* and while the proposal will dominate views of people driving north along Burrup Road and west along Hearson Cove Road, the proposal will be largely obscured from view from visitors to Deep Gorge and Hearson Cove.

In relation to traffic, the EPA considered that vehicle movements would increase by less than 10 per cent of current rates and was therefore acceptable. Although the Minister noted the Appeals Convenor's advice that movements are expected to be about 15 per cent higher than current usage, the Minister nonetheless agreed with the EPA's conclusion.

Aboriginal cultural heritage sites

Several appellants raised concern about direct impacts to registered heritage sites. The Minister understood that, in summary, the EPA considered that the proposal could be implemented while protecting cultural values from significant harm. The EPA's finding was based on the proponent avoiding 30 out of 33 identified Aboriginal heritage sites, through its

configuration of the development envelope. The Minister also understood that the Murujuga Aboriginal Corporation agreed to the relocation of the remaining three sites.

Noting that any disturbance to the remaining three sites is subject to other regulatory controls, and noting the EPA's advice that the Murujuga Aboriginal Corporation has indicated that the disturbance of these three sites is acceptable, the Minister considered the EPA's assessment and conclusions were acceptable. The Minister noted in addition that disturbance of the sites will require consideration through the *Aboriginal Heritage Act 1972* or the *Aboriginal Cultural Heritage Act 2021* (as applicable).

Clearing of native vegetation

One appellant raised concern that construction of the proposal would result in clearing a large footprint, including significant flora and fauna habitat. An appellant also raised that the EPA had not considered the net loss of carbon sequestration arising from the clearing.

In this regard the Minister understood that the EPA assessed the impacts to flora, vegetation and fauna, based on biological surveys undertaken by the proponent over several seasons.

The EPA considered that the proposal would result in significant residual impacts associated with the clearing of 64 hectares (ha) of good to excellent condition native vegetation, 0.16 ha of a priority 1 priority ecological community (PEC), direct impact to 21 locally significant vegetation communities and impacts to fauna species, including ghost bats and northern quoll.

To address these residual impacts, the EPA recommended the application of offsets.

The Minister considered these offsets were consistent with the outcomes of the assessment and relevant guidelines and also agreed with the Appeals Convenor's advice that the vegetation within the development area is unlikely to be a significant store of carbon. The Minister therefore dismissed these grounds of appeal.

Next steps

The Minister will now commence consultation with relevant decision-making authorities as to whether or not the proposal may be implemented, and the conditions which apply to any such implementation, under section 45(3) of the Act.

Note: this decision is published pursuant to the terms of section 110 of the *Environmental Protection Act 1986* and regulation 8 of the *Environmental Protection Regulations 1987*.

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