



Application for Licence Amendment

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

Licence Number	L9426/2024/1
Applicant	Perdaman Chemicals and Fertilisers Pty Ltd
ACN	121 263 741
File number	DER2024/000051
Premises	Project Ceres Legal description – Part of Lot 700 on Plan P411759 Part of Lot 3014 on Plan P042282 Part of Lot 3013 on Plan P042282 Part of Lot 701 on Plan P411760 Part of Lot 706 on Plan P411760 As defined by the premises maps attached to the issued licence and by the coordinates specified in Schedule 2 of the issued licence
Date of report	29 January 2025
Proposed Decision	Revised licence granted

MANAGER, PROCESS INDUSTRIES

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

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 Licence L9426/2024/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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 Application summary and overview of premises

Perdaman Chemicals and Fertiliser Pty Ltd (the Licence Holder) is developing a urea production facility (Project Ceres) on the Burrup Peninsula (Figure 1) approximately 9km north-east of Dampier. The applicant currently holds a licence (L9426/2024/1) for Category 12 activities (Screening, etc. of material) to support construction of Project Ceres. On 20 November 2024, the Licence Holder submitted an application for to amend Licence L9426/2024/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act).

This amendment is limited only to changes to Category 12 activities from the Existing Licence.

Table 1 below outlines the proposed changes to the existing Licence.

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
12	850,000 tonnes per year	1,300,000 tonnes per year	The Licence Holder has requested that the crushing and screening works are extended until mid-2025 to allow completion of site works associated with construction of Project Ceres noting that no change to daily throughput limits will occur.

The department notes that additional construction activities for the Project Ceres urea plant and associated infrastructure have been assessed via a separate works approval (W6875/2023/1), granted on 25 June 2024. Activities authorised under works approval W6875/2023/1 include Categories 31, 52, 58, 73 and 85.

2.2.1 Background

The crushing and screening activities authorised by the licence initially commenced in November 2023 under Works Approval W6630/2021/1 for the construction of the broader Perdaman Urea Production facility – Project Ceres. These bulk earthworks involve using the processed material to level the site in preparation for the construction of this facility and for pavement materials for site works. The materials being processed includes virgin material excavated from the Sites C and F (Figure 1), processed treated acid sulphate soil materials and sand dunes.

2.2.2 Works Approval W6630/2021/1

Works approval W6630/2021/1 was granted on 14 July 2022 and authorised the installation and time-limited operations of crushing and screening plant for a total design capacity of 450,000 tonnes per annum (tpa).

Appeal 028/22

Following the granting of the works approval, appeals were lodged that opposed the conditions of the works approval on the basis that the conditions do not adequately protect the rock art in the surrounding environment which the appellants contended has significance at State, national and international level.

On 1 November 2023, the Minister determined to allow the appeal in part, with additional requirements imposed that clarified the use of dust control equipment, and introduced buffers from heritage sites to further reduce potential impacts from crushing and screening activities.

2.2.3 Licence L9426/2024/1

Licence L9426/2024/1 was granted 19 March 2024 and provided for the transition of completed works under Works Approval W6630/2021/1 to a licence. The Department's risk assessment and subsequent granting of the licence for the Premises took into consideration the appeal outcomes for W6630/2021/1.

Appeal 016/24

The conditions of Licence L9426/2024/1 were also appealed, with the grounds of appeal being similar to those lodged against W6630/2021/1. The Minister's determination of the appeal on 21 November 2024 allowed the appeal in part, with an additional condition imposed requiring cessation of crushing and screening activities by 31 July 2025. The licence was amended on 3 December 2024 to give effect to the Minister's decision.

Compliance

Under the Licence the Licence Holder is obligated to submit an Annual Environmental Report (AER) and Annual Audit Compliance Report (AACR) each year for the previous reporting period. The AER provides annual throughput tonnages, air quality monitoring data as well as a summary of complaints and any dust management trigger exceedances. The AACR is a self-auditing tool requiring review of compliance against licence conditions.

The AER and AACR for the 2023 – 2024 reporting period were received by the department on 30 July 2024. This is the first AER and AACR submission required since the commencement of the licence in March 2024.

In its AACR, the Licence Holder declared non-compliance with conditions relating to monitoring of dust, indicating that the monitoring network was not properly established at the commencement of the licence. It was noted that monitors were either not installed on time or were initially recording an incorrect averaging period (i.e. 15-min average rather than 10-min average). Information provided by the Licence Holder indicates that issues with dust monitoring equipment has been rectified and the systems are operating as required by the Licence.

Review of the AER and AACR is ongoing. Declared non-compliance matters are being investigated and will be addressed in accordance with the department's *Compliance and Enforcement Policy* (2021).

2.2.4 Application to amend the licence

The application to amend the Licence submitted by the Licence Holder requests an increase in throughput from 850,000 tpa (as authorised under the existing Licence) to 1,300,000 tpa.

The applicant advised that the initial throughput assessed and authorised under W6630/2021/1 was based on calculations during the Front End Engineering Design stage of the project and

quantities of material were required to be processed were underestimated. Outcomes from additional geotechnical investigations and further detailed design through construction have determined that higher volumes of material are required to achieve the desired elevation levels at the project resulting in the request for higher throughput.

2.2.5 Operation

Timeframes

The Licence Holder has advised that the current annual throughput limit of 850,000 tpa will be achieved in January 2025 however additional material is still required to be processed through the crushing and screening equipment to finalise site works for the construction of Project Ceres. Based on current output volumes, processing of material is anticipated to be completed in May 2025. As such, works are expected to be completed prior to the Minister’s imposed cessation date of 31 July 2025 (refer to section 2.2.3 above relating to Appeal No. 016/24). The Licence Holder has advised that the increase in yearly output does not increase the current daily throughput volumes of 5,000 tonnes per day.

In granting the initial Licence, the Delegated Officer noted that while the initial target end date for the crushing and screening activities was 30 December 2024, the Licence Holder had previously advised that there was a level of uncertainty regarding the exact end date of operations, which could be extended due to material types and quantities. The crushing and screening activities are to support the initial construction and site preparation activities for Project Ceres and, despite uncertainties regarding timeframes, the Delegated Officer considered the works to be comparatively short-term in duration. Considering that works commenced in November 2023, even with the revised timeframes, the total duration of crushing and screening activities will be less than two years. The Delegated Officer remains of the view that the duration of works is comparatively short-term.

Operation of crushing and screening plant

The Licence currently authorises crushing and screening activities at Site C and Site F using the infrastructure and equipment listed in Table 2. To allow continued operations, back-up equipment is also authorised to be present onsite, ready to be mobilised to replace equipment listed in Table 2 that is offline for maintenance, repairs etc.

The Licence Holder has advised that no further crushing and screening works will be undertaken at Site C and that works will be limited to Site F only. No change to the infrastructure operated at Site F (as listed in Table 2) is proposed. Furthermore, the Licence Holder has advised that operational controls associated with crushing and screening equipment will not change as a result of the annual throughput increase, and are consistent with those previously assessed under the Licence (refer to section 4.1.1).

Table 2: Authorised equipment to operate within Site C and Site F

Site C	Site F
<ul style="list-style-type: none"> • 1 x Jaw crusher; • 2 x Secondary cone crusher¹; • 1 x Incline screen; • 2 x Track mounted stacker; • 1 x Excavator (loading tool or equivalent); • 1 x Loader; • 1 x Dust suppression water tank, with a generator 	<ul style="list-style-type: none"> • 1 x Jaw crusher; • 1 x Secondary cone crusher; • 1 x Incline screen; • 1 x Track mounted stacker; • 1 x Excavator (loading tool or equivalent) • 1 x Loader; • 1 x Dust suppression water tank, with a generator

Note¹: The applicant has advised that the additional secondary cone crusher will be used during operations to produce structural fill.

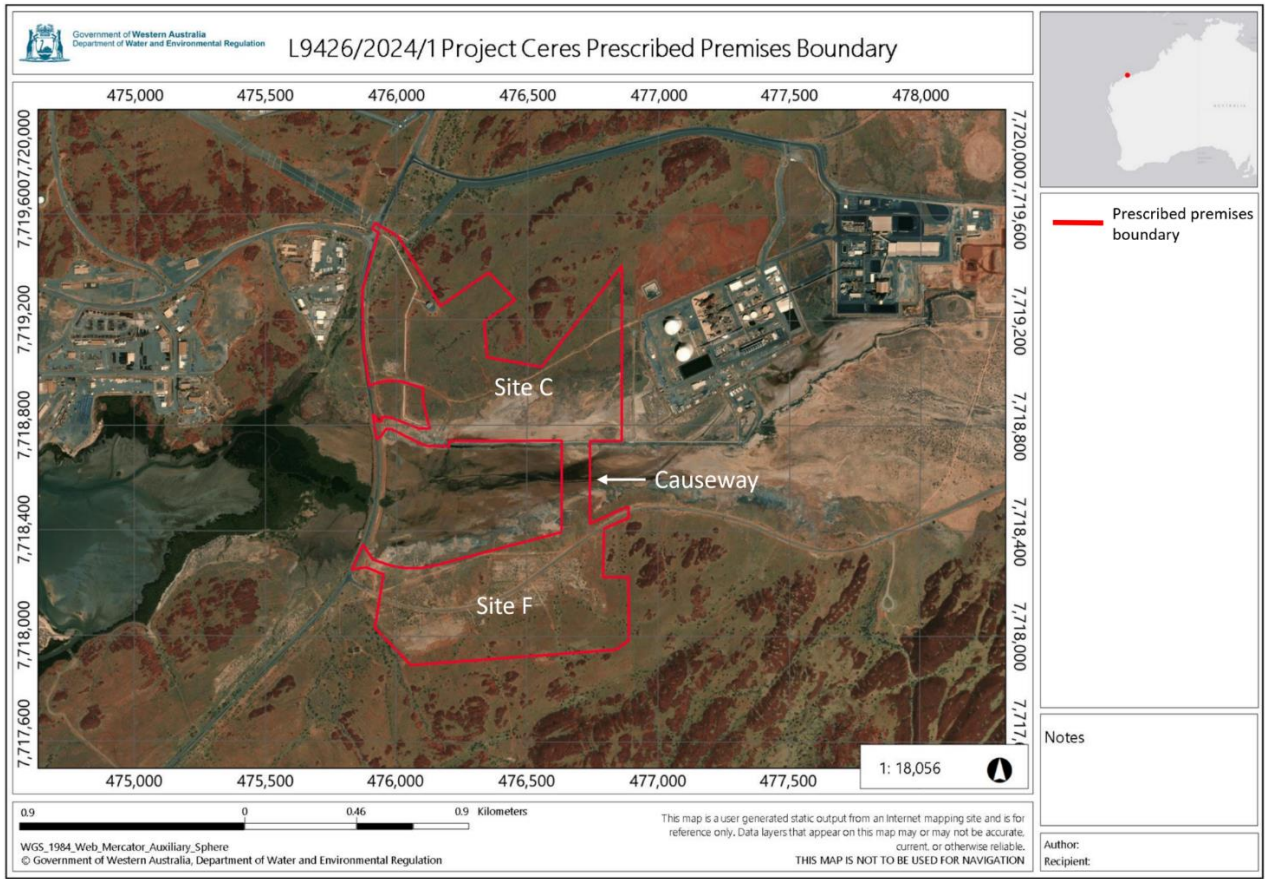


Figure 1: Perdaman Urea Project – Prescribed premises boundary

2.3 Premises environmental siting

2.3.1 Disturbance footprint

Crushing and screening activities are associated with site preparation works for the construction of the Perdaman Urea Facility (assessed under W6875/2023/1 granted on 25 June 2024). Figure 2 and Figure 3 demonstrate the proposed cut and fill area and provides a general extent of where material will be sourced for crushing and screening purposes. The Delegated Officer notes the Licence Holder’s approach is to avoid areas that have a high likelihood for acid sulphate soils (ASS).

The Licence Holder has indicated that some ASS have been intercepted during construction works. Where ASS are intercepted, they are managed in accordance with conditions of MS 1180 (conditions 7-1 and 7-2 relating to ASS, and the approved Surface Water Management Plan). This includes treatment of material per the department’s guideline on the *Treatment and management of soil and water in acid sulfate soil landscapes* (DER, 2015) prior to processing via crushing and screening equipment.

In its assessment of the Licence granted in March 2024, the department considered the results of a detailed site assessment and the potential risks associated with disturbing ASS and soils contaminated with other material such as PFAS. The department also had regard for conditions of MS 1180 relating to the management of ASS. Based on the information available, the department concluded that there was a low risk of introducing contaminated feed material into the crushing and screening circuit and that ASS were most appropriately regulated under Part IV of the EP Act via conditions of the Ministerial Statement (MS 1180). Details of this assessment are documented in the relevant Decision Report which is available online at

www.der.wa.gov.au.

The Licence Holder proposes no change to the proposed cut and fill areas. Noting this and the requirements of MS 1180 with regards to managing and treating ASS, the Delegated Officer determined that there is no change to the risks associated with introducing contaminated feed into the crushing and screening equipment as a result of this amendment.

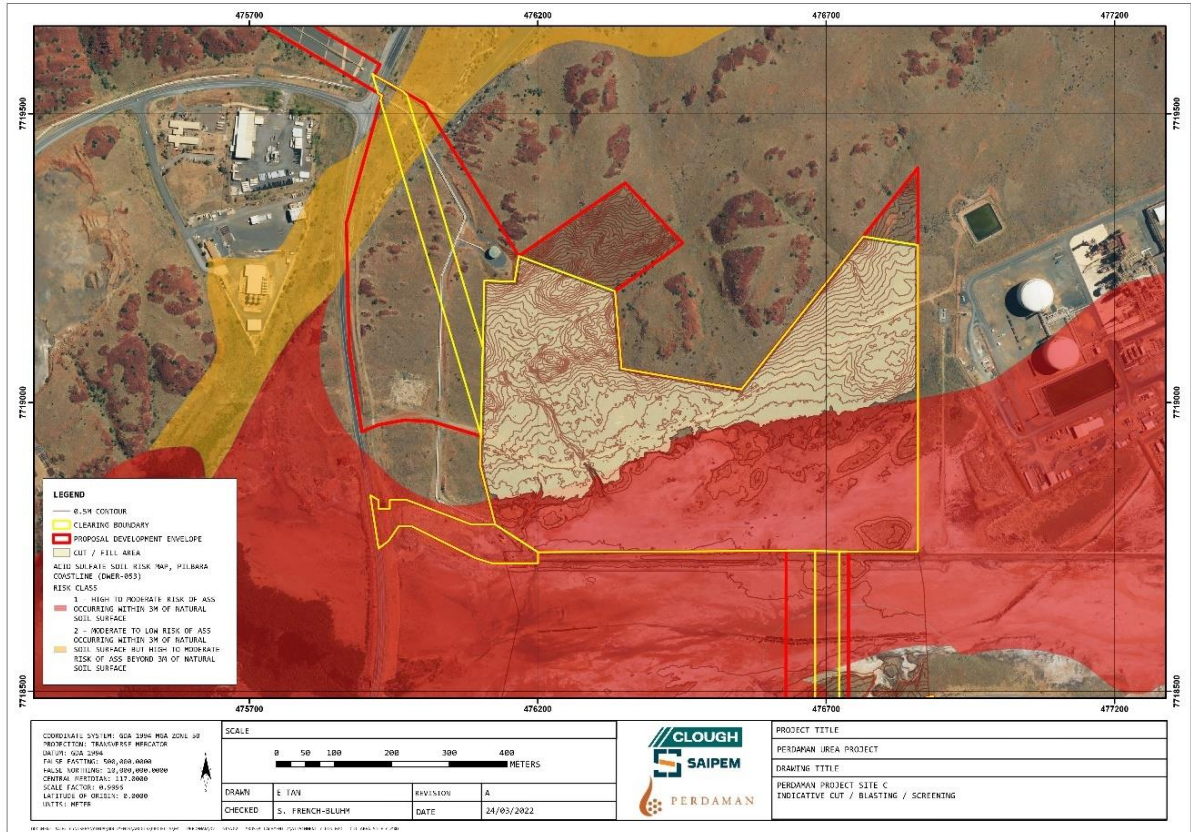


Figure 2: Proposed cut and fill locations for Site C

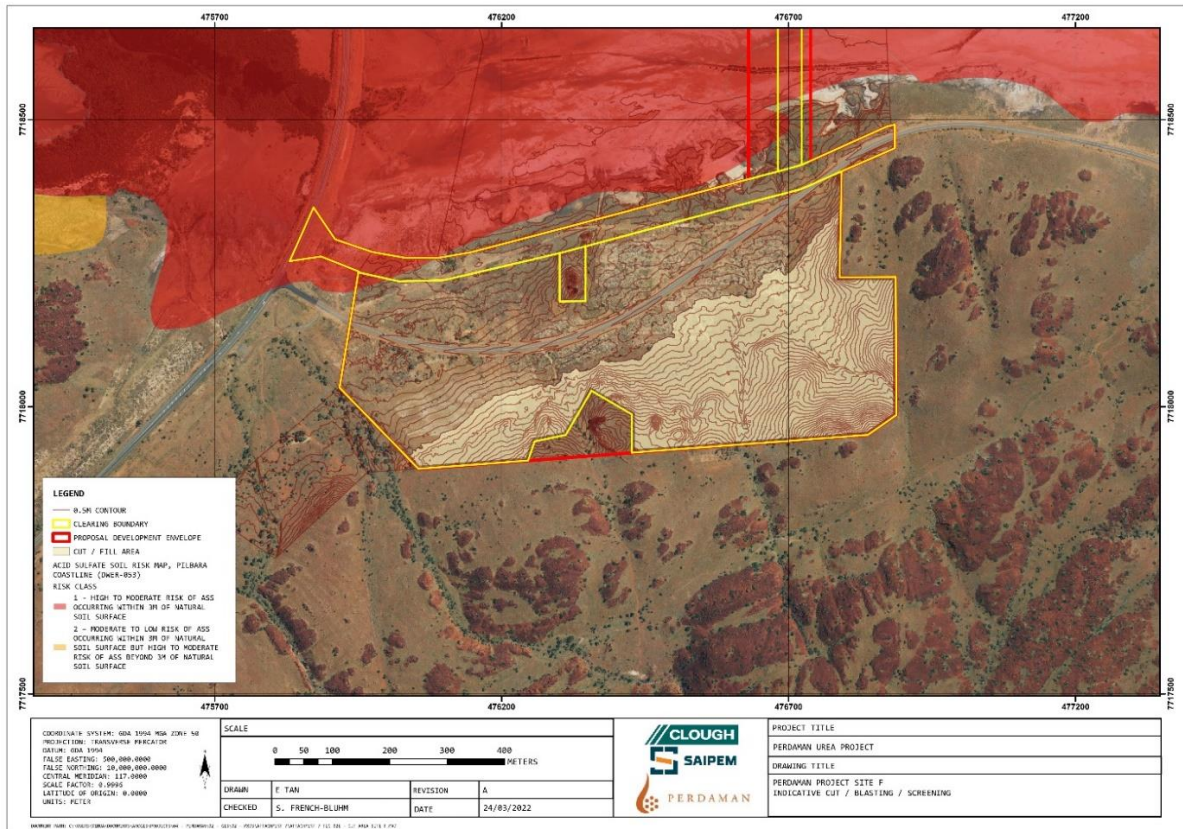


Figure 3: Proposed cut and fill locations for Site F

2.3.2 Ambient air quality and regional influences

The Burrup Peninsula is a semi-arid climate of generally hot summers with period heavy rains and mild winters with occasional rainfall. Tropical cyclones can occur between the months of December and April.

The wind conditions for the area are characterised by prevailing easterlies during the dry season between April and August and westerlies during the wet season between October and February (Figure 4).

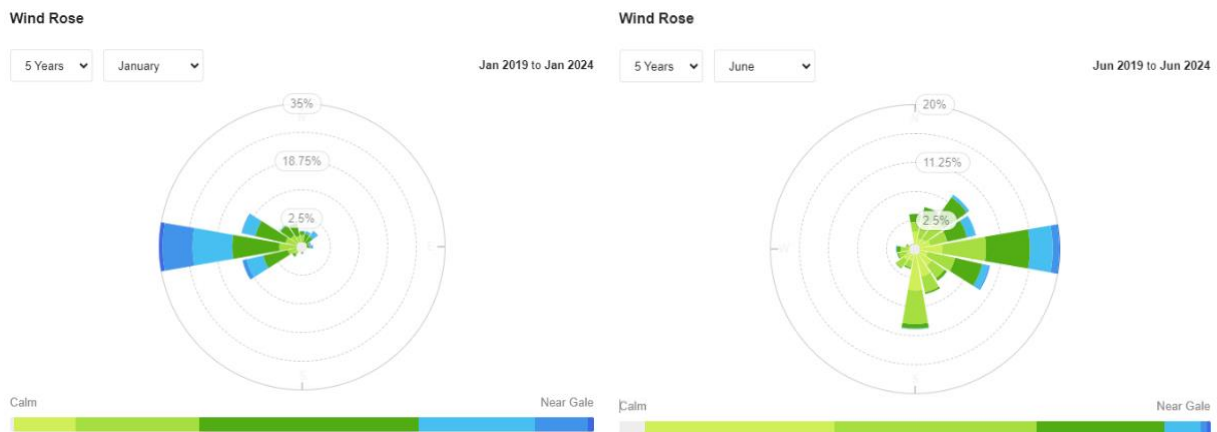


Figure 4: Wind roses of prevailing winds from Karratha Airport for summer and winter months

2.3.3 Dust monitoring

The existing Licence requires the Licence Holder to carry out ambient monitoring for dust (PM₁₀ and PM_{2.5}) at four fixed locations around the boundary of the premises (Figure 5). The Licence Holder is also required to monitoring dust using a portable monitor that can be relocated depending on the location of the crushing and screening equipment in relation to the nearest cultural heritage sites (as identified in the Cultural Heritage Management Plan and shown in Figure 6 below). A management trigger is specified on the Licence to inform onsite personnel of elevated dust levels to ensure that appropriate mitigation measures are being implemented to minimise dust from the premises.

The AER submitted in July 2024, indicates that there were 51 instances where the dust management trigger was exceeded during the 2023/2024 reporting period. The Licence Holder indicated that these trigger events were generally associated with other construction activities such as ripping, loading and hauling, rather than directly attributable to crushing and screening.

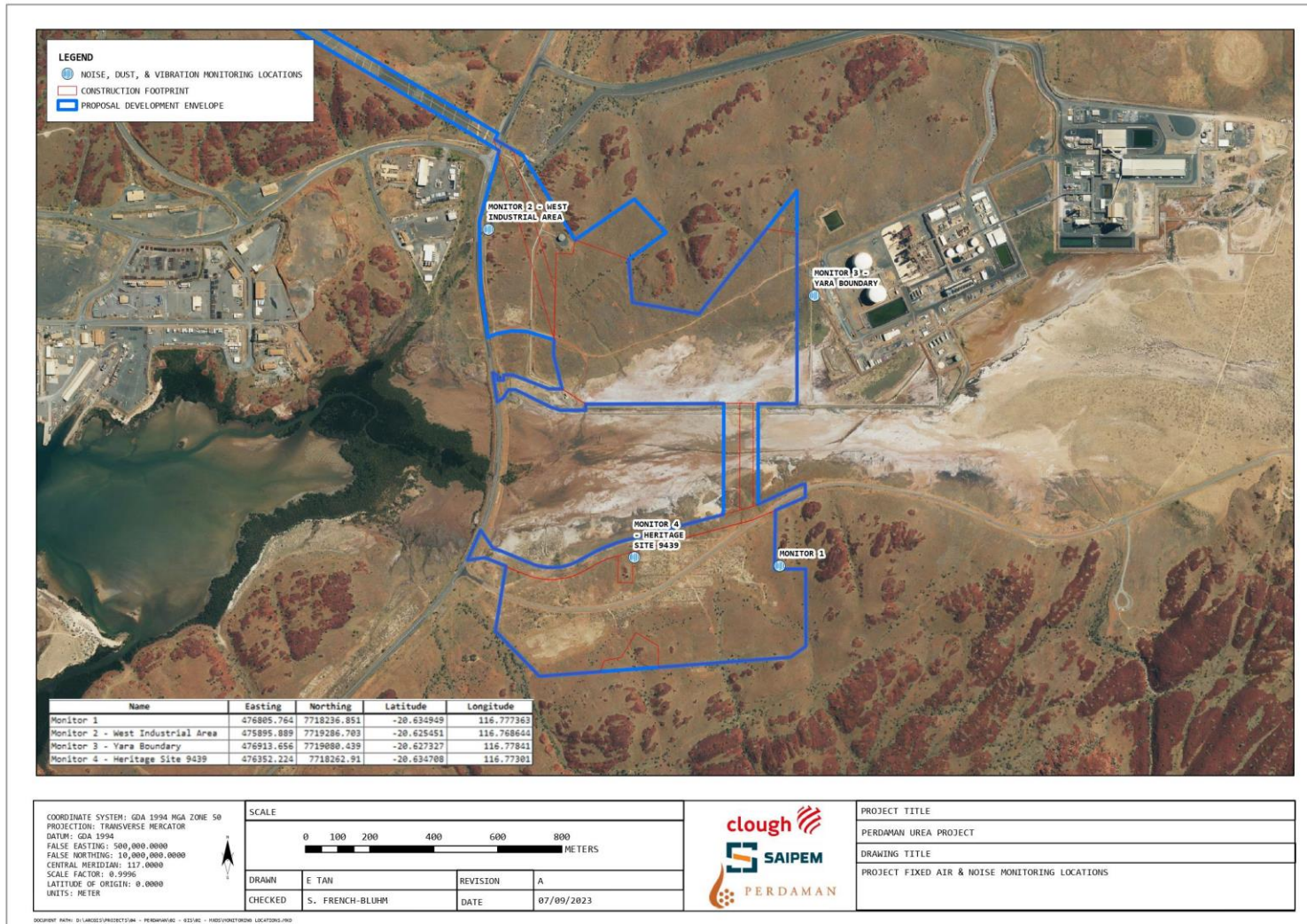


Figure 5: Map of current fixed dust monitoring locations

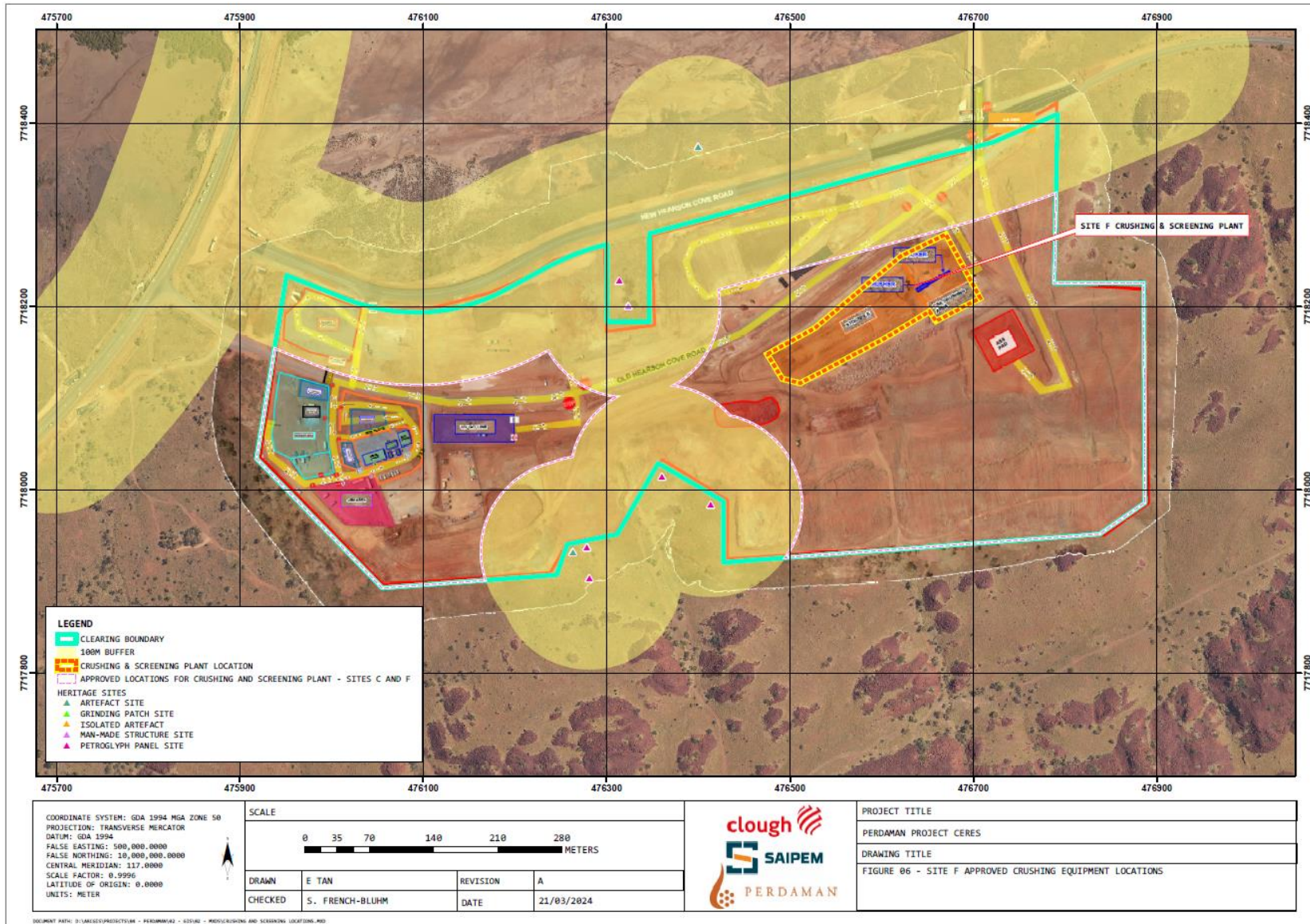


Figure 6: Heritage locations defined within the approved Cultural Heritage Management Plan.

Licence: L9426/2024/1 (Date of amendment: 29 January 2025)

3. Legislative context and other approvals

Table 3 below provides a summary of relevant approvals for the premises and assessment.

Table 3: Relevant Approvals and Tenure

Legislation	Details
Development Approval	<p>The Development Approval DA21261 was granted in accordance with regulation 8 of the <i>Planning and Development (Development Assessment Panels) Regulation 2011</i> on 15 March 2022.</p> <p>The DA specify that the applicant is required to implement dust management measures during construction and operation and plans under any other relevant legislation and/or approvals.</p>
<i>Environmental Protection and Biodiversity Conservation Act 1999</i>	<p>This proposal was referred under the EPBC Act and determined to be a controlled action (EPBC 2018/8383) pursuant of section 75 of the EPBC Act. The action assessed involved the construction and operation of the urea plant and associated infrastructure. The controlling provisions are section 15B and 15C (national heritage values of a national heritage place), section 18 & 18A (threatened species and communities), section 20 & 20A (migratory species) and section 23 & 24A (Commonwealth marine area). The decision to approve the action passed on 26 February 2022.</p>
<i>Aboriginal Heritage Act 1972</i>	<p>This proposal has consent under section 18 of the <i>Aboriginal Heritage Act 1972</i> issued on 27 January 2022.</p>
<i>Biodiversity Conservation Act 2016</i>	<p>Authorisation to take or disturb threatened species under section 40 of the <i>Biodiversity Conservation Act 2016</i> for the purpose of taking threatened fauna in a management operation to facilitate the construction and operation of a urea production plan and associated activities. This was originally approved on 28 June 2023.</p>
Part IV of the <i>Environmental Protection Act 1986</i>	<p>Ministerial Statement 1180 (discussed further below).</p>
Part V of the <i>Environmental Protection Act 1986</i>	<p>Works Approval W6630/2021/1 for Category 12 activities granted 14 July 2022</p> <p>Licence L9426/2024/1 for Category 12 activities granted on 3 December 2024.</p>
<i>Rights in Water and Irrigation Act 1914</i>	<p>S17 Permit to Obstruct or Interfere (approval PMB209045(1)), granted 21 August 2023 for the construction of a causeway to provide access between Site C and Site F of the Perdaman Urea Project.</p>

3.1 Part IV of the EP Act

The Perdaman Urea Project was referred to Environmental Protection Authority (EPA) under section 38 of the EP Act on 7 May 2018 and was assessed (Assessment No: 2184) at the level of Public Environmental Review (PER). The EPA released its report and recommendation on the project (EPA Report 1705) on 1 September 2021. The Ministerial Statement (MS) 1180 was

published on 24 January 2022.

The approved proposal authorised the construction and operation of a urea production plant with a nominal production capacity of about 2 million tonnes per annum (Mtpa) within Development Envelopes named Site C and Site F, located within the Burrup Strategic Industrial Area (BSIA) on the Burrup Peninsula.

MS 1180 was granted with the requirements that revised management plans (under Conditions 3-3, 4-3, 5-3, 7-2, 8-2, 9-2 and 10-2) and supplementary studies (under condition 6-3 and 7-1) must be submitted at least six months prior to ground disturbing activities and that the proponent must not undertake the commencement of ground disturbing activities until the CEO has confirmed in writing that the management plans have been revised and satisfy the requirements of those conditions.

On 6 July 2022, the applicant received final notification from the EPA that it had complied with the requirements in accordance with the Part IV approval (MS1180) for the management plans required at least 6 months prior to Ground Disturbing Activities.

Table 4 details the key environmental factors that were considered during the Part IV assessment and conditioned through the MS 1180, including specific requirements from the various management plans, that are relevant to the scope of this licence amendment application.

Table 4: EP Act Part IV assessment relevant to the assessment of Category 12 activities

Environmental factor	Summary of Part IV assessment related to this proposal
Air quality (Conditions 2-1 to 2-10)	Conditions of MS1180 require that no air emissions from the proposal have an adverse impact accelerating the weathering of rock art within Murujuga beyond natural rates. Air emissions from the overall urea plant proposal are required to be managed in accordance with an Air Quality Management Plan (as required by condition 2-3 of MS1180). Further, the applicant has developed a Construction Environmental Management Plan (CEMP) Air Quality Management Protocol (discussed further in Table 4) to supplement their confirmed Cultural Heritage Management Plan (required by MS1180 conditions).
Cultural heritage (Conditions 9-1 to 9-8)	<p>Conditions of MS1180 require that the implementation of the proposal achieves the following outcomes:</p> <ul style="list-style-type: none"> • avoid, where possible, and otherwise minimise direct and indirect impacts to social, cultural, heritage and archaeological values within and surrounding the development envelope; • allow ongoing Traditional Owner and Custodian access to enable traditional activities and connection to culturally significant areas within and surrounding the development area; and • avoid, where possible, and otherwise minimise direct and indirect impacts to visual and amenity impacts to social and cultural places and activities. <p>The applicant has a confirmed Cultural Heritage Management Plan to meet the objectives specified in condition 9-1 and to the requirements of condition 9-2. Relevant requirements from this management plan relating to the control of dust emissions include:</p> <ul style="list-style-type: none"> • construction equipment will be checked to ensure is in good condition; • machines to be operated at low speeds where practical and will be switched off when not being used rather than left idling for prolonged periods; • minimise vehicle speeds on and around work sites to be reduced where necessary to minimise dust emissions;

	<ul style="list-style-type: none"> • dust suppression techniques used on unsealed roads and access tracks; and • avoiding earthworks during high winds (>40km/hr). <p>Requirements found to be specific to impacts to rock art are:</p> <ul style="list-style-type: none"> • undertake monitoring during construction and commissioning; and • adopt future environmental air quality objectives and standards derived from the results of the Murujuga Rock Art Monitoring Program. <p>Relevant requirements from this management plan to control noise emissions include:</p> <ul style="list-style-type: none"> • machines found to produce excessive noise compared to industry best practice will be removed from the site or stood down until repairs or modifications can be made. <p>The management plan also includes the following commitments to management impacts to cultural heritage sites and value:</p> <ul style="list-style-type: none"> • lighting will be designed to reduce light spills. <p>Revisions of management plans for key environmental factors specified in MS 1180 are required to be made in consultation with the Murujuga Aboriginal Corporation to ensure heritage and cultural values are continued to be considered in a holistic way.</p>
<p>Terrestrial flora and vegetation (Conditions 4-1 to 4-9)</p>	<p>Conditions of MS1180 contain restrictions on the extent of clearing to meet the following environmental outcomes:</p> <ol style="list-style-type: none"> (1) the extent of native vegetation clearing within the development envelope shall not exceed 73.05ha; and (2) the extent of clearing within the vegetation community identified as Priority 1 (P1) Priority Ecological Community (PEC) – Burrup Peninsula Rock Pile Communities shall not exceed 0.16ha <p>and to minimise indirect impacts to native vegetation.</p> <p>It is noted that the crushing and screening activities are to occur only with the approved clearing extent.</p> <p>The applicant has a confirmed Flora Management Plan submitted under condition 4-3 that satisfies the requirements of condition 4-7 including provisions relevant to managing impacts from crushing and screening activities such as impacts to native vegetation from changes to surface water flows, changes to surface water quality and dust.</p> <p>The Flora Management Plan also involves the requirements for:</p> <ul style="list-style-type: none"> • visual monitoring for signs of vegetation stress from dust emissions; • implementation of dust suppression on unsealed roads and access roads, when there is visible dust (except during topsoil stripping); • implementation of controls relevant to dust in the CEMP Air Quality Management Protocol; and • inspections regarding dust emissions. <p>During the assessment for works approval W6630/2021/1, the department's EPA Services directorate confirmed that specific requirements of MS1180 will manage dust impacts on terrestrial flora as the confirmed plans discussed above will include management controls that include the proposed crushing and screening activities, provided they are undertaken within the approved disturbance footprint of the proposal.</p>

<p>Terrestrial fauna (Condition 5-1 to 5-8)</p>	<p>The conditions of MS1180 restrict the applicant from clearing specific vegetation species that may provide habitat to fauna and further impacts to short-range endemic fauna species are to be avoided where possible. The environmental objective specified in the MS is to minimise direct and indirect impacts to the northern quoll, Pilbara olive python and ghost bat within the development envelope (which involves the spatial scope of this application).</p> <p>The applicant is required to implement their confirmed Fauna Management Plan and a Threatened Species Management Plan that satisfies the requirements of condition 5-3 including the management of impacts from lighting, dust, noise, vibration, and vehicle and machinery movement strikes.</p> <p>During the assessment for works approval W6630/2021/1, the department's EPA Services directorate confirmed that specific requirements of the MS will manage dust impacts on terrestrial fauna as the confirmed plans discussed above will include management controls that include the proposed crushing and screening activities, provided they are undertaken within the approved disturbance footprint of the proposal.</p> <p>The activities associated with the crushing and screening (as under consideration within this licence amendment application) do not include any further clearing.</p>
<p>Acid sulfate soils (ASS) (Condition 7-1 and 7-2)</p>	<p>As per the conditions of MS1180, the applicant was required to undertake an intrusive acid sulfate soils investigation in accordance with the requirements of DWER's guideline on the <i>Identification and investigation of acid sulfate soils and acidic landscapes</i> (DER, 2015a) at least six months prior to ground disturbing activities.</p> <p>Results from the assessment identified presence of ASS within the supratidal zones between Site C and Site F. If ASS is disturbed during the proposal, it is to be treated and managed in accordance with the requirements the guideline on the <i>Treatment and management of soil and water in acid sulfate soil landscapes</i> (DER, 2015c) as per condition 7-2.</p> <p>For the scope of the activities under the assessment of this licence amendment, the potential risks would involve the crushing, screening and stockpiling of any potential ASS material and handling of ASS material during this process. The Surface Water Management Plan (SWMP), required by condition 8-2 of MS1180 includes measures that will manage against ASS risk during these activities. This includes the requirements below:</p> <ul style="list-style-type: none"> • stockpiles identified to be ASS contaminated to be located on a crushed limestone 300 mm thick layer with a bunded guard of 150 mm high and will be managed in accordance with CEMP Erosion, Sediment and Surface Water Management Protocol; • neutralising and treatment of any stockpiles that may contain ASS; • ASS can be stockpiled for up to 70 hours before soil must be treated; • capture and management of leachate, treatment of stockpile with lime to neutralise material that will be stockpiled for longer than 70 hours; and • restrictions on the re-use of treated ASS material to have a field soil pH of +/-0.5 when compared to field soil pH naturally occurring in background levels. <p>Given the requirements above, and that the indicated cut and fill locations associated with the proposed crushing and screening activities are outside the ASS risk areas (as shown in Figure 2 and Figure 3), the risk of direct disturbance of ASS is not considered significant.</p>

<p>Surface water (Conditions 8-1 to 8-7)</p>	<p>Conditions of MS1180 require the implementation of the proposal to maintain the hydrological regimes and quality of surface water so that environmental values are protected.</p> <p>The confirmed Surface Water Management Plan (SWMP) required by condition 8-2 contains requirements regarding management of water from disturbed areas and stockpiles with the following controls:</p> <ul style="list-style-type: none"> • construction of sedimentation controls such as batters and cut-off drains throughout site; • diverting clean surface water from upstream of the works; • use of sediment traps, silt fences and other control structures; • developing site specific Erosion and Sediment Control Plans for each site within the development area; <i>implemented around stockpiles to limit contaminated run-off;</i> • prepare stockpiles prior to rainfall or potential flood events; and • surface water monitoring points located around Site C and Site F to be sampled monthly (during construction works) for metals, nutrients and physical parameters. • Quarterly groundwater monitoring at locations within Site C and Site F for metals, nutrients, TRH, BTEX and physical parameters. <p>Aspects of the SWMP also detail the management of hydrocarbon emissions that considered relevant in managing the crushing and screening activities, such as requirements to manage spills during refuelling activities. The SWMP includes controls relevant to the management of chemicals and hydrocarbons such as:</p> <ul style="list-style-type: none"> • accidental spills prevented where possible and emergency response actions to remediate accidental spills; • maintain and keep spill kits in areas designated for refuelling activities; • proposed bunding and storage (110% containment) for fuels/chemicals; • containment bunding around vehicle servicing facilities, chemical/fuel storage areas; and • commitments that potentially contaminated stormwater (e.g. runoff which contains hydrocarbons) will not be discharged into the environment.
<p>Greenhouse gas emissions (Conditions 3-1 to 3-11)</p>	<p>Conditions of MS1180 require the proponent to:</p> <ul style="list-style-type: none"> • take measures to ensure that net greenhouse gas emissions do not exceed a series of tapering volumes of CO_{2-e} tonnes, up until 1 July 2049 when net zero tonnes of CO_{2-e} emissions must be achieved, as specified in conditions 3-1 and 3-2; and • not undertake the commencement of Ground Disturbing Activities until the CEO has confirmed in writing that the revised Greenhouse Gas Management Plan satisfies the requirements of conditions 3-3 and 3-4 which has since been submitted and approved. <p>The proponent is required to continue implementing the most recent version of the Greenhouse Gas Management Plan until the emissions specified in condition 3-1 are achieved.</p>
<p>Light management (Conditions 10-1)</p>	<p>The conditions of MS1180 require the applicant to avoid, where possible, and otherwise use best practice technology and risk-based management actions to minimise nightglow and light overspill from the proposal so that the environmental values of amenity at sensitive locations, including, but not limited</p>

to 10-7)	to Hearson Cove and Deep Gorge, are protected. The applicant is required to implement a Light Management Plan that the CEO has confirmed satisfies the requirements of condition 10-2.
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In accordance with DWER’s *Guidance Statement: Setting Conditions* (DER, 2015b), conditions of a Part V licence must not be “...contrary to, or otherwise than in accordance with, an implementation agreement or decision under Part IV of the EP Act.” Further, that conditions “will not unnecessarily duplicate requirements imposed on licensees directly by the EP Act or another written law.”

In granting the amended licence, the Delegated Officer has taken into consideration conditions applied under Part IV of the EP Act through MS1180, and DWER’s *Guidance Statement: Setting Conditions* and determined that the following environmental factors are managed through the Ministerial Statement (MS1180) and therefore require no further regulation under the Part V licence:

- Flora and vegetation, including impacts from dust and changes to surface water quality and/or groundwater regimes;
- Terrestrial fauna, including impacts from dust, noise and vibration;
- Greenhouse gas emissions;
- Hydrogeological and surface water management;
- Groundwater protection;
- Acid sulfate soils; and
- Light management.

Due to the conditions applied through MS 1180 and the requirements of the relevant management plans, the Delegated Officer has determined that duplication of controls to manage impacts associated with the proposed crushing and screening activities are not required within the conditions of this licence.

The EPA’s Assessment Report 1705 identified that there is a requirement for air emissions from the proposal to be regulated by the DWER under Part V of the EP Act on the provision that Part V regulation is not inconsistent with the Part IV conditions. In this regard, the assessment of crushing and screening activities as part of this licence application has considered the risk of dust emissions as part of construction activities (specifically category 12 screening activities), the duration of these activities and the proposed controls.

3.2 Rock art significance and potential impacts

Murujuga (the Dampier Archipelago, including the Burrup Peninsula and surrounds) is a unique ecological and archaeological area containing one of the largest collections of Aboriginal engraved rock art (petroglyphs) in the world. The rock art is of continuing cultural, archaeological and spiritual significance for Aboriginal people and also has significant state, national and international heritage value.

The Western Australian Government is committed to the ongoing protection of Murujuga’s rock art and is working in partnership with the Murujuga Aboriginal Corporation (MAC), representing the Traditional Custodians of Murujuga, to protect and manage this important area.

The department recognises the cultural importance and heritage value of rock art both internationally and locally and is committed to conducting further detailed scientific investigations and continuing the coordinated approach involving implementation of the Murujuga Rock Art Strategy (MRAS) and Murujuga Rock Art Monitoring Program (MRAMP).

The results from the monitoring program will identify relevant environmental quality indicators

and define acceptable and unacceptable environmental quality conditions, therefore providing data for measuring and assessing environmental performance against environmental quality criteria.

3.3 Exclusions

As discussed in section 2.2, the scope of this assessment is limited to category 12 screening activities only, and only the increase in annual throughput from 850,000 tonnes per annum to 1,300,000 tonnes per annum. Activities relating to the construction of the broader urea plant are the subject of a separate works approval (W6875/2023/1), granted on 25 June 2024.

4. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk Assessments* (DWER 2020).

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

4.1 Source-pathways and receptors

4.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this decision report are detailed in Table 4. The table also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

No changes to operational controls are proposed by the Applicant however it noted that operation of crushing and screening equipment will be limited to one crushing and screening circuit located at Site F.

Table 5: Proposed applicant controls during operation of crushing and screening plant

Emission	Sources	Potential pathways	Proposed controls
Operation			
Dust	Crushing and screening vehicle movements, lift off from stockpiles and earthworks	Air / windborne pathway	<p><u>Proposed operational controls:</u></p> <ul style="list-style-type: none"> Utilisation of developed Construction Dust Management Procedure; 4 x 60,000 litre water supply tanks, 3 x 40,000 litre dust suppression trucks and 1 x 8 wheel dust suppression truck located onsite; Water carts be available at the site for dust suppression during establishment of the crushing and screening plant and will be operated as required to wet stockpiles and prevent any visible dust from leaving the site; Dust suppression water used throughout the premises and for the operation of crushing and screening plant is not extracted from groundwater but rather potable water is carted

Emission	Sources	Potential pathways	Proposed controls
			<p>on site for this purpose;</p> <ul style="list-style-type: none"> • Excavated material will be stockpiled to 5m in height near the mobile crushing and screening plant and a maximum of three stockpiles at each site (6 in total at premises); • Crushing and screening equipment will not be operated within 100m of cultural heritage sites; • Water systems will be used as required to minimise the generation of dust at material transfer points, crusher and at the material stockpiles; • Dust suppression sprays installed at material transfer locations on the jaw crusher, cone crushers, triple deck screen and product stackers; • Partial enclosure of stacker track and cone crusher transfer points; • Chemical dust suppressants or water trucks utilised on roads to minimise dust generation; • Vehicle speeds reduced where necessary to reduce dust liftoff; <p><u>Controls as required by other plans:</u></p> <p>Implementation of the CEMP Air Quality Management Protocol which involves requirements for dust suppression (with water systems, water carts and chemical dust suppressants) and decrease of vehicle speeds to reduce dust generation.</p> <p>Preparation and implementation of the CEMP Construction Dust Management Procedure (required by the CEMP Air Quality Management Protocol) that includes measures conditioned in works approval W6630/2021/1 and the requirements for dust monitoring:</p> <ul style="list-style-type: none"> • 6 dust deposition monitoring gauges (installed) located near the sensitive receptors within the prescribed premises; • Installation of 4 dust monitors (a telemetry network of 'near real-time' data using ETS Tp-2510 Dust Concentration Sensors) to monitor PM₁₀ and PM_{2.5} data as a 10min average µg/m³ value; <p><u>Applicants proposed additions to monitoring plan:</u></p> <ul style="list-style-type: none"> • A proposed trigger value of 80 µg/m³ will alert supervisory/management staff to implement management actions including: <ul style="list-style-type: none"> ○ increase to dust suppression activities; ○ reducing work on site to only essential

Emission	Sources	Potential pathways	Proposed controls
			<p>tasks, decreasing speed of plant and movement of equipment and potentially ceasing work during excessively high readings;</p> <ul style="list-style-type: none"> ○ monitoring of levels until there is no longer an exceedance; and ○ identification of high-risk weather conditions (faster winds / warmer temperature).
Noise	Crushing of material, vehicle movements, reverse beeping		<ul style="list-style-type: none"> • All plant will be equipped with exhaust mufflers from the Original Equipment Manufacturer (OEM) or systems meeting or exceeding the OEM specifications; • Works carried out during daylight hours; <p>CEMP Noise Management Protocol, required by conditions of MS 1180 include following relevant measures:</p> <ul style="list-style-type: none"> • Equipment fitted with appropriate noise reduction devices; • Regularly inspect, maintain and replace mobile equipment; and • Broadband reversing alarms installed on mobile plant.
Sediment laden stormwater ¹	Crushing and screening of material Material stockpiles	Overland run off	<p>Earthen bund constructed around the plant area at both Site C and F to prevent surface water ingress into the premises and prevents surface water runoff from crushing and screening plant and associated processed material stockpiles;</p> <p>Conditions of Ministerial Statement 1180 require management of surface water via the implementation of the Surface Water Management Plan.</p>
Hydrocarbons ¹	Screening and crushing plant Refuelling equipment Machinery maintenance	Direct spill to land; and Contaminated surface/ stormwater and leachate	<p>Implementation of the Hydrocarbons and Hazardous Substances Management Protocol (HHSMP) that include measures:</p> <ul style="list-style-type: none"> • Chemicals stored on or within a bunded structure; • In the event of a spill, the spill will be contained using spill kits available, removed and soil contaminated by spills will be removed to an appropriate stockpile location for remediation; • No vehicle or mobile plant refueling shall occur within 50m of a watercourse or intertidal zone. • Servicing of mobile plant will be conducted within an earthen bunded area; • All minor volumes of chemicals will be stored on or within a bunded structure with capacity 110%

Emission	Sources	Potential pathways	Proposed controls
			<p>of largest container, or 25% of the total storage capacity of all containers (whichever is larger), impermeable walls and floor (soil floors are not sufficient) and roofed in accordance with <i>Australian Standard AS1940:2004 – The storage and handling of flammable and combustible liquids</i>;</p> <ul style="list-style-type: none"> Chemicals, oily or contaminated products that are no longer required to be removed from site by licenced controlled waste contractor. Hazardous waste material and dangerous goods to be disposed of in accordance with the relevant legislation at approved and certified facilities; Drip trays will be placed under the fuel delivery vehicle, the plant / machinery being refuelled and any joins in fuel delivery hoses to capture any spills or leaks associated with the refuelling process. <p>Conditions of Ministerial Statement 1180 require management of hydrocarbons under the implementation of the Surface Water Management Plan.</p>
Artificial Light ¹	Crushing and screening plant Vehicle movements	Air pathway	<ul style="list-style-type: none"> Only operated during day light hours <p>Conditions of Ministerial Statement 1180 require management of artificial light overspill under the implementation of the Light Management Plan.</p>

Note 1: Refer to Table 3 for the relevant requirements and management of specified emissions as part of Part IV assessment and conditioning under MS1180.

4.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant’s employees, visitors, and contractors from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 5, Figure 7 and Figure 8 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

Table 6: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Neighbouring industrial premises (zoned strategic industry City of Karratha Planning Scheme No.8)	Immediately adjacent to the Premises – Yara Pilbara Fertiliser; and Business Park. King Bay Supply Base – 130m south of port Woodside Energy (Pluto LNG) 1.2km east

Ngajarli (Deep Gorge) (recreational site)	1 km southeast of the Site C boundary
Hearson's Cove: a popular public recreation and fishing beach	Approximately 2 km east of the premises boundary (Sites C& F)
Dampier Townsite	Approximately 5.4 km south-west of the premises boundary
Karratha Townsite	11.5 km SSE Considering the distance of category 12 activities to this receptor, the Delegated Officer considers that impacts to this receptor are not foreseeable and therefore is not further considered in the risk assessment.
Environmental receptors	Distance from prescribed activity
Murujuga National Park	Directly south and east of the project site
Tidal flat	Between sites C and F
Ephemeral creeks	Within the premises boundary
Aboriginal and other heritage sites	Within and adjacent to the premises boundary
Threatened/Priority Fauna	27 conservation significant fauna species have been identified as being "known to occur" or are considered "likely to occur" within a 10km buffer of the Project area. This includes the Ghost Bat (<i>Macroderma gigas</i>), Northern Quoll (<i>Dasyurus hallucatus</i>) and Olive Python (<i>Lialis olivaceus barroni</i>). 32 migratory bird species are also known to, or likely to occur within the project area 10km buffer, of which five are listed as threatened species. Another two bird species, the Bar-tailed Godwit (Baueri) (<i>Limosa lapponica baueri</i>) and Northern Siberian Bar-tailed Godwit (<i>Limosa lapponica menzbieri</i>), are also listed as threatened but are not considered to be migratory. Due to the nature of the Category 12 activities in this assessment and regulation under MS 1180, these receptors are not further considered in the risk assessment.
Threatened/Priority Flora	Three priority species have been recorded within 5km of the project; <i>Terminalia supranitifolia</i> (Priority 3), <i>Stackhousia clementii</i> (Priority 3) and <i>Rhynchosia bungarensis</i> (Priority 4). Due to the nature of the Category 12 activities in this assessment and regulation under MS 1180, these receptors are not further considered in the risk assessment.
Threatened Ecological Communities and Priority Ecological Communities	Several priority ecological communities have been identified in the area. Priority 1 ecological communities exist within 5 km of the premise including the Burrup Peninsula rock pool and rock piles communities. The Burrup Peninsula rock pile communities consist of short-range endemic land snails. Considering the distance of category 12 activities to this receptor, the Delegated Officer considers that impacts to this receptor are not foreseeable and therefore are not further considered in the risk assessment.
Groundwater	Flows towards tidal flat with water levels close to surface (1m close to tidal zone). pH neutral (6.5 – 7.7) with EC ranging from 5,200 – 190,000 µS/cm. Site F - between 10.8 – 7.7 metres below ground level (mbgl) Site C - between 10.2 – 7 mbgl

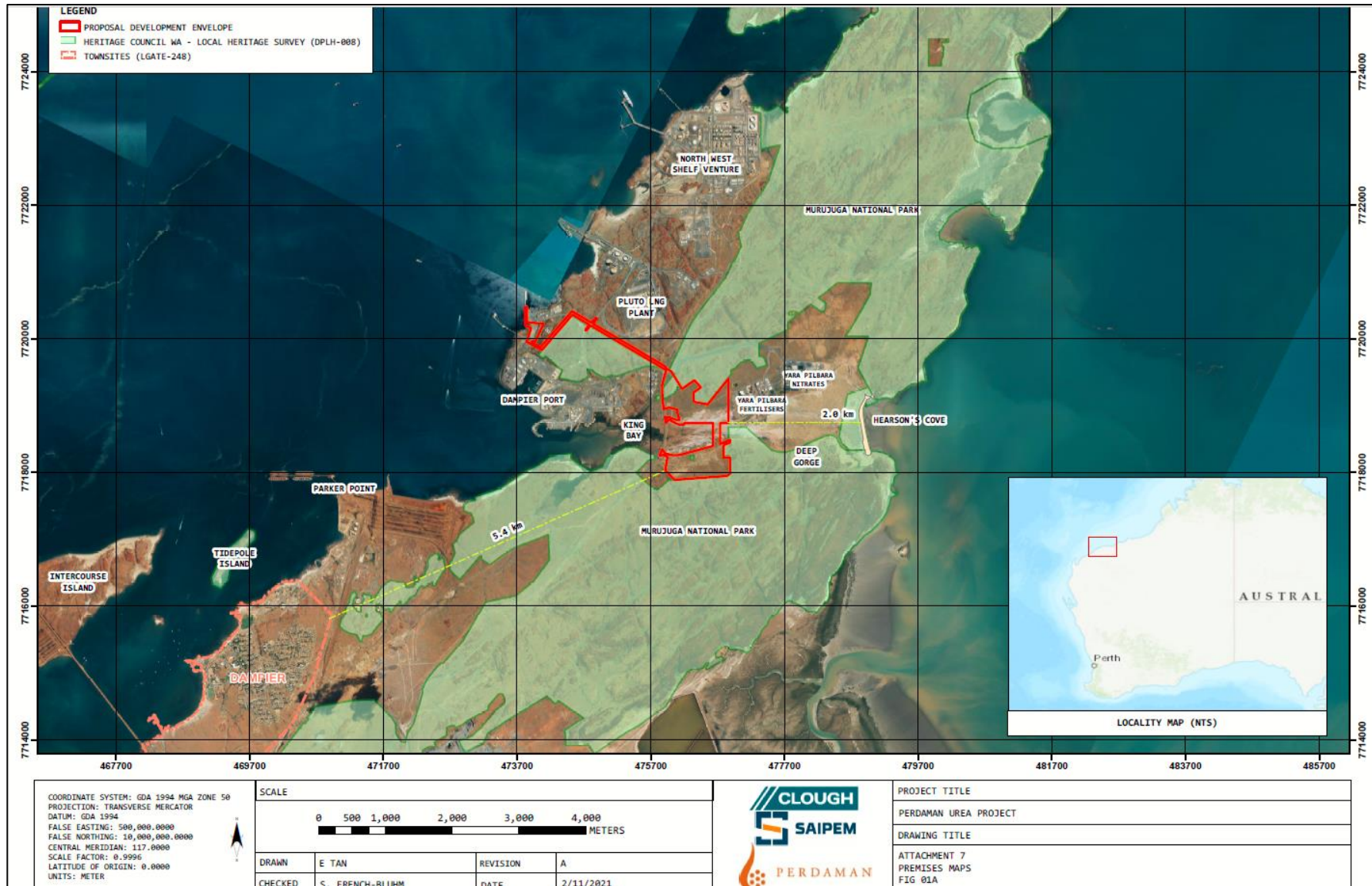


Figure 7: Distance to sensitive receptors, including recreational areas

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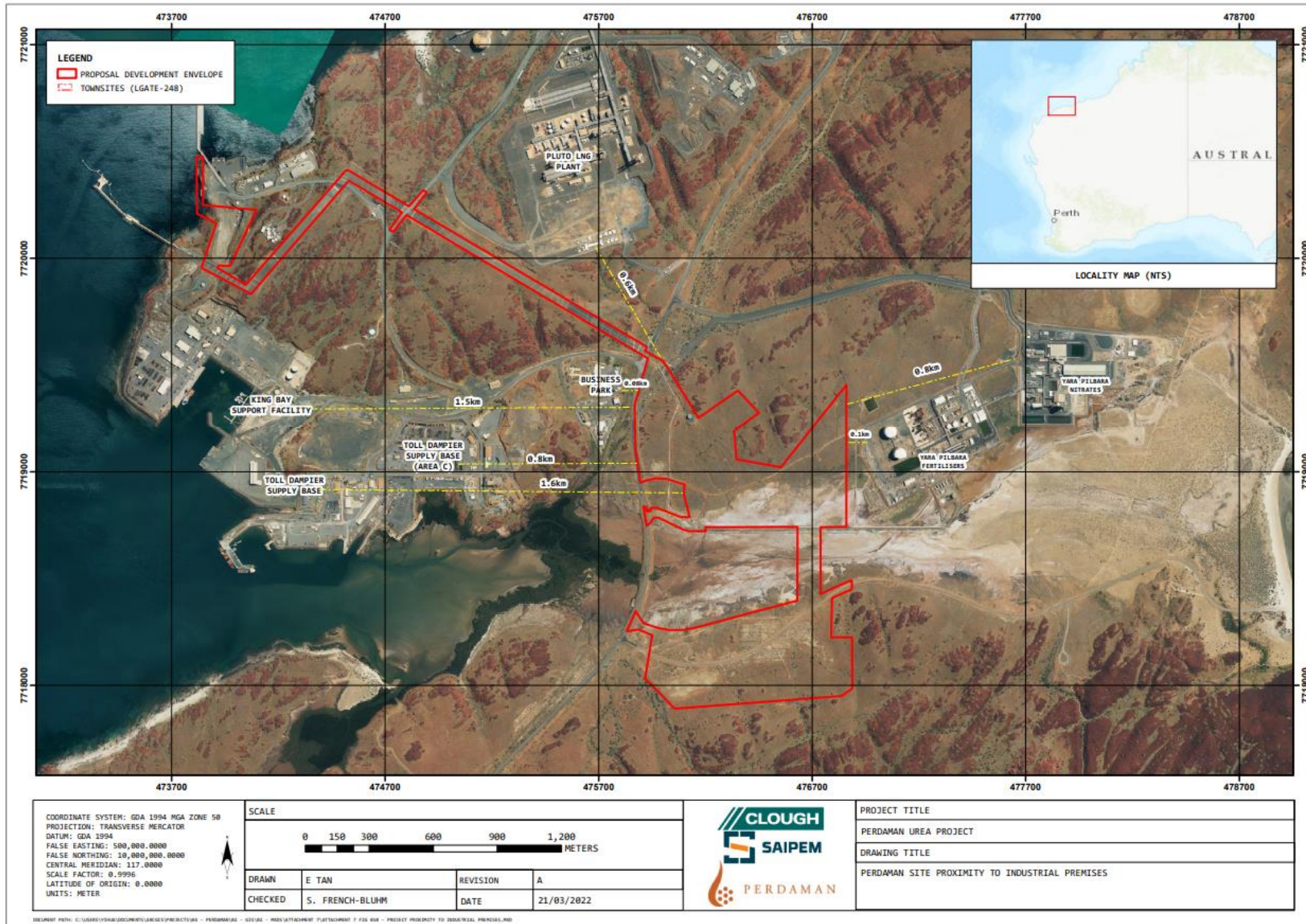


Figure 8: Distance to industrial receptors

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4.3 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 4.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 4.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 7.

Licence L9426/2024/1 that accompanies this decision report authorises emissions associated with the operation of the premises i.e. screening and crushing activities

The conditions in the issued licence, as outlined in Table 7 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015b).

Table 7: Risk assessment of potential emissions and discharges from the premises during operation

Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of licence	Justification for regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
Operation								
Screening, crushing, unloading, loading and storage of material Vehicle movements	Dust (granophyte /sand/alluvium material)	<p>Pathway: Air / windborne pathway Impact: Health and amenity impacts</p>	<p>Neighbouring industrial sites adjacent to premises Residential receptors at Dampier Townsite 5.4km away Recreational users of Ngajarli and Hearson's Cove</p>	Refer to Section 4.1.1	<p>C = Slight L = Unlikely Low Risk</p>	Y	<p>Condition 2 (Table 2): dust sprays and dust suppression Condition 4, 7, 8 and 9: Dust monitoring and management</p>	<p>The Delegated Officer has determined that the increase in annual throughput associated with extending the duration of crushing activities to 31 July 2025 does not alter the risk profile associated with dust impacts on visitors to the area. The average daily throughput will remain at 5,000 tonnes (per current Licence conditions) and therefore visitors are not expected to be exposed to inhalable particulate concentrations beyond occupational exposure standards (Safe Work Australia, 2022) even during upset conditions. Noting the distances to residential receptors, risks to these receptors is also considered to remain unchanged. Operational controls associated with dust management remain in place including application of dust mitigation measures (dust suppression), dust monitoring and implementation of additional controls in response to exceedances of the dust management trigger. No additional regulatory controls are required beyond those conditioned.</p>
		<p>Pathway: Air / windborne pathway and deposition of particulate matter on rock art Impact: Causing erosion through abrasion</p>	<p>Petroglyphs - within and immediately adjacent to premises boundary</p>	Refer to Section 4.1.1	<p>C = Severe L = Unlikely High Risk</p>	N	<p>Condition 2 (Table 2): plants to be operated >100 m from heritage sites; Condition 2 (Table 2): dust sprays and dust suppression Condition 3: Production limits Condition 4, 7, 8 and 9: Dust monitoring and management Condition 8: specifies location of portable monitor Condition 8: Trigger exceedance investigation and response Condition 10: ambient meteorological monitoring</p>	<p>The Delegated Officer considers that although the duration of the activity will be extended, the emissions profile will not change. Controls for managing dust emissions implemented by the Applicant and conditioned by the Licence will continue to be applied. Noting that crushing and screening operations will be limited to Site F, the licence conditions have been amended accordingly to restrict activities to Site F only. Controls specified within the Flora Management Plan and the Cultural Heritage Management Plan (as required by conditions of MS1180) will continue to support the mitigation of the impact of dust emissions to rock art. The Delegated Officer has determined that the consequence of this impact remains to be severe, the highest rating, in recognition of the high conservation and cultural value of the rock art, as well as the uncertainty of the impacts caused by dust emissions to rock art and in the absence of interim guidelines from the MRAMP. The likelihood for the risk event (unlikely) is considered to be unchanged. In making this determination the Delegated Officer has considered the following:</p> <ul style="list-style-type: none"> that the daily throughput limits and operational dust controls remain unchanged noting that the increase in annual throughput is associated with extending the duration of works; that operations will be limited to one crushing and screening circuit operating at Site F only; and that the overall duration of activities is comparatively short term (< 2 years duration) despite extending the works by six months. <p>The Delegated Officer considers that while the assessment includes an overall increase in throughput, the extended works can generally be managed in accordance with existing Licence conditions relating to infrastructure controls and dust monitoring, and supported by conditions of MS1180. As part of the risk assessment, the Delegated Officer has reviewed the suitability of the monitoring program with regards to the location of the dust monitors, the location of the sensitive receptors in relation to the crushing and screening activities, and regional meteorological conditions. The current dust monitoring network includes four fixed dust monitors; two at Site C and two at Site F, one of which is located adjacent to the standing stone site at Site F (ID 9439). An additional portable monitor is required by the Licence to be operated between the crushing and screening activities and specified heritage sites (Figure 6). With activities restricted to Site F, emissions will be concentrated to the southern portion of the premises and the Delegated Officer notes that the location of the portable dust monitor can be targeted to activities in this area. The Delegated Officer has determined that the existing monitoring network (i.e. the number of monitors) is sufficient for managing dust emissions from the continued crushing and screening activities, however, has amended conditions regarding the location of the portable monitor to target</p>

Licence: L9426/2024/1 (Date of amendment: 29 January 2025)

Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of licence	Justification for regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
								operations at Site F. The amendment requires that the monitor is situated to capture emissions tracking downwind, particularly to the east during winter prevailing winds, to strengthen response to dust generated by crushing and screening activities. The Delegated Officer considers that the amended condition will provide the same level of protection for heritage sites specified in Figure 6 as the existing conditions but will also ensure that offsite dust emissions are more broadly captured in dust management response.
	Noise	Pathway: Air / windborne pathway Impact: Health and amenity impact	Neighbouring industrial sites adjacent to premises Residential receptors at Dampier Townsite 5.4km away	Refer to Section 4.1.1	C = Slight L = Unlikely Low Risk	Y	Condition 2 (Table 2): plant operated with exhaust mufflers.	The Delegated Officer considers that extending the duration of crushing and screening activities will not alter noise emissions from the premises and therefore the risk of noise impacts will remain unchanged. It is expected that noise emissions associated with crushing and screening activities will be the same, if not lower, as works will be limited to one circuit operating within Site F. The Delegated Officer has determined that the requirements of the existing Licence and the <i>Environmental Protection (Noise) Regulations 1997</i> continue to be sufficient for managing risks associated with noise.
	Hydrocarbons (associated with operational activities – equipment, machinery, generators)	Pathway: Overland transport via contaminated stormwater Impact: Ecosystem disturbance of impacting surface water quality	Ephemeral creek within the premises Tida flats between Site C and site F	Refer to Section 4.1.1			Condition 2 (Table 2): plants to be only operated within bunding	The amendment relates to increasing the authorised annual throughput of Category 12 activities by extending the duration of work by seven months to July 2025. No change to operational controls will occur and the Delegated Officer considers that there will be no change to the emissions profile associated with hydrocarbon storage and handling, stormwater, ASS and light overspill as a result of the amendment. The Delegated Officer remains of the view that the requirements of the existing Licence and MS 1180 (and associated management plans) are sufficient for managing risks associated with hydrocarbons, stormwater, ASS and light overspill. Further details of the Delegated Officer’s consideration of regulatory controls are provided in the Decision Report associated with the Licence granted on 19 March 2024.
		Pathway: Leaching through soil profile Impact: Contamination of groundwater	Shallow groundwater Site F (between 10.8 –7.7 mbgl) Site C (between 10.2 – 7 mbgl)	Refer to Section 4.1.1			N/A	
	Sediment laden stormwater	Pathway: Overland runoff potentially Impact: Ecosystem disturbance or impacting surface water quality	Ephemeral creek within the premises Tida flats between Site C and site F	Refer to Section 4.1.1				
	Leachate from disturbed acid sulphate soils	Pathway: Overland transport Impact: Ecosystem disturbance of impacting surface water quality	Ephemeral creek within the premises Tida flats between Site C and site F	Refer to Section 4.1.1				
		Pathway: Leaching through soil profile Impact: Contamination of groundwater	Shallow groundwater Site F (between 10.8 –7.7 mbgl) Site C (between 10.2 – 7 mbgl)	Refer to Section 4.1.1				
	Light overspill	Pathway: Air pathway Impacts: Amenity at nearby recreational areas	Recreational users of Ngajarli and Hearson’s Cove	Refer to Section 4.1.1				
		Pathway: Air pathway Impacts: Disruption to fauna activity and behaviour	Environmental receptors in King Bay	Refer to Section 4.1.1				

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

5. Consultation

Table 8 provides a summary of the consultation undertaken by the department.

Table 8: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 29 November 2024 and <i>The West</i> newspaper on 2 December 2024.	Comments received from the Conservation Council Western Australia (CCWA) on 13 December 2024. A summary of comments is provided in Appendix 2.	Refer to Appendix 2.
City of Karratha advised of proposal on 29 November 2024.	The City of Karratha confirmed that the development the subject of the proposed licence amendment application is to comply with the Development Approval issued by the Regional Joint Development Assessment Panel (JDAP) on 17 March 2022, and the conditions of that development approval	Noted.
Yara Pilbara Fertilisers / Yara Pilbara Nitrates, Department of Jobs, Tourism, Science and Innovation (JTSI) and Department of Planning Lands and Heritage (DPLH) advised of proposal on 29 November 2024.	None received.	N/A
Friends of Australian Rock Art (FARA) advised of proposal on 29 November 2024.	Refer to Appendix 2	
Murujuga Aboriginal Corporation (MAC) advised of proposal on 29 November 2024.		
The Save Our Songlines group advised of proposal on 29 November 2024.	None received.	N/A
Licence Holder provided draft licence and decision report on 17 January 2025.	The Licence Holder responded on 21 January 2025 requesting that the remainder of the comment period be waived.	Noted.

6. Conclusion

Based on the assessment in this decision report, the Delegated Officer has determined that the proposed increase in annual throughput for Category 12 activities will not all the risk profile of the premises, and that the change can be generally managed under the existing conditions of the licence and MS1180. In making this decision the Delegated Officer notes that daily throughput limits for crushing and screening will not change with the increase in throughput directly associated with an extension to the duration of works. The Delegated Officer has also considered the potential reduction in emissions notes that operations will be limited to a single crushing and screening circuit operating at Site F only.

Operational controls specified on the licence relating to dust suppression and implementing management action in response to high dust levels will continue to apply. Noting that dust emissions will be concentrated at Site F, the Delegated Officer has elected to amend monitoring conditions to target dust emissions at Site F, and more broadly capture dust emissions from the crushing and screening activities in dust management response.

6.1 Summary of amendments

Table 9 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 9: Summary of licence amendments

Condition no.	Proposed amendments
1 (Table 1)	Remove reference to Site C and associated infrastructure.
2 (Table 2)	
3	Change annual production limit from 850,000 tonnes per annual period to 1,300,000 tonnes per annual period.
8 (Table 3)	Note 3 regarding the siting of the portable dust monitor amended.
Schedule 1: Maps	Figure 2 deleted. Figure numbers updated accordingly.
Schedule 2: Premises boundary	Errors in Table 7 (Premises boundary coordinates) corrected.

References

1. DER 2015b, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. DER 2015c, *Guideline: Treatment and management of soil and water in acid sulfate soil landscapes*, Perth, Western Australia.
3. DWER 2019, *Murujuga Rock Art Strategy*. Available at: <https://www.wa.gov.au/system/files/2020-07/DWER-Murujuga-rock-art-strategy.pdf>
4. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
5. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
6. DWER 2021, *Compliance and Enforcement Policy*, Perth, Western Australia.
7. DWER 2021a, *Murujuga Rock Art Monitoring Program – Conceptual Model*. Available

at: [202100268 Murujuga Conceptual Model - August 2021.pdf \(www.wa.gov.au\)](#).

8. DWER 2022, *Murujuga Rock Art Monitoring Program: Monitoring studies data collection and analysis plan*. Available at: [Murujuga Rock Art Monitoring Program: Monitoring studies data collection and analysis plan \(www.wa.gov.au\)](#)
9. DWER 2023, *Murujuga Rock Art Monitoring Program: Summary Monitoring Studies Report 2023*. Available at: [Murujuga Rock Art Monitoring Program: Summary Monitoring Studies Report 2023 \(www.wa.gov.au\)](#)
10. Perdaman Chemical and Fertilisers Pty Ltd (Perdaman) 2022a, *Fauna Management Plan Perdaman Urea Project Burrup Peninsula, Western Australia*.
11. Perdaman 2022b, *Flora Management Plan Perdaman Urea Project Burrup Peninsula, Western Australia*.
12. Perdaman 2022c, *Greenhouse Gas Emissions Management Plan, Perdaman Urea Project, Western Australia*.
13. Perdaman 2022d, *Light Management Plan, Perdaman Urea Project, Burrup Peninsula, Western Australia*.
14. Perdaman 2022e, *Surface Water Management Plan Perdaman Urea Project Burrup Peninsula, Western Australia*.
15. Perdaman 2022f, *Threatened Species Management Plan Perdaman Urea Project Burrup Peninsula, Western Australia*.
16. Perdaman 2023a, *Acid Sulfate Soil Management Plan Perdaman Urea Project Burrup Peninsula, Western Australia*.
17. Perdaman 2023b, *Construction Environmental Management Plan*.
18. Perdaman 2023c, *Construction Environmental Management Plan Appendix J Air Quality Management Protocol*.
19. Perdaman 2023d, *Construction Environmental Management Plan Appendix K Noise Management Protocol*.
20. Perdaman 2023e, *Construction Dust Management Protocol*.
21. Perdaman 2023f, *Cultural Heritage Management Plan 2021– Project Ceres, Perth, Western Australia*.
22. Safe Work Australia 2022, *Workplace Exposure Standards for Airborne Contaminants*.
23. Tetra Tech Coffey 2022a, *Perdaman Urea Project – Project Destiny Baseline Contamination Assessment – Detailed Site Investigation, Perth, Western Australia*.

Appendix 2: Application submission summary

Stakeholder	Summary of submission points	DWER comments
Conservation Council WA (DWER-801164602-363594)	The Licence Holder has failed to comply with the conditions of the existing licence having declared non-compliance with various conditions in the Annual Audit Compliance Report. DWER did not apply any penalties for these non-compliance actions. Appropriate penalties should be applied to any future non-compliance.	The Licence Holder correctly notified the department of the potential non-compliances through the AACR reporting function. Any breach of licence conditions is investigated in accordance with the department's <i>Compliance and Enforcement Policy</i> . As discussed in section 2.2.3, the potential breaches declared by the Licence Holder in the AACR are currently under investigation by the department and will be addressed in accordance with the department's <i>Compliance and Enforcement Policy</i> (DWER 2021).
	Data relating to trigger exceedances reported in the AACR should be made publicly available.	Triggers levels specified on the licence are primarily used as a management tool for the early detection of elevated dust generated by crushing and screening activities to enable review and implementation of dust management controls. Per the licence conditions, in the event of an exceedance of the trigger levels, the Licence Holder is required to investigate the exceedance and implement management action to mitigate dust from crushing and screening activities. Management controls that may be applied include: <ul style="list-style-type: none"> increase to dust suppression activities; reducing work on site to only essential tasks, decreasing speed of plant and movement of equipment and potentially ceasing work during excessively high readings; and monitoring of levels until there is no longer an exceedance. The trigger levels are not specified limits and therefore an exceedance of the trigger level is not considered a breach of the licence conditions and does not require reporting through the AACR.
	The Application is not clear on whether the crushing and screening plant will operate within existing areas. If new locations are proposed, consideration should be given to the location of the mobile crushing and screening plant in regard to risks to nearby sensitive environmental and cultural receptors and dust monitoring reevaluated in relation to its location.	No new locations for crushing and screening are proposed with crushing and screening activities to occur within the area currently authorised by the licence. Furthermore, the Licence Holder has advised that crushing and screening activities are no longer required at Site C and will be limited to Site F.
	Extending the duration of operations by approximately 18 months will increase the risk of dust impact to petroglyphs and the natural environment.	As outlined in section 2.2.5, the initial expected completion date for works was December 2024. The application to amend the licence seeks to increase in the annual throughput of Category 12 activities from 850,000 tonnes to 1,300,000 tonnes by extending the duration of activities. The Licence Holder has advised that, based on the current permitted daily throughput, the works are expected to be completed by May 2025, which is an extension of about six months. The Delegated Officer notes that completion by May 2025 is within the timeframe specified by the Licence which was recently amended to enact the Minister's determination of Appeal No. 016/24 to impose an additional condition requiring the cessation of works by 31 July 2025.
	The findings of the Office of the Appeals Convenor in response to Appeal No. 016 of 2024 which recommend cessation of crushing and screening activities by 18 June 2025 should be taken into consideration in the assessment of the application.	
FARA (DWER-801164602-366015)	Concern raised regarding the scope of ground-level disturbance that has occurred associated with the construction of Project Ceres.	Impacts associated with clearing and ground disturbance are not within the scope of the assessment under Part V of the EP Act. As discussed in section 3 above, Project Ceres was subject to assessment under Part IV of the EP Act. The assessment considered impacts associated with clearing including impacts to terrestrial flora, terrestrial fauna and social surroundings. These impacts are subsequently managed under MS1180.
	FARA raised concern regarding impacts to rock art from dust and flying debris from continued crushing and screening activities.	Risks associated with dust emissions associated with the increase throughput have been assessed as outlined in section 4.3. The Delegated Officer notes that the proposed increase in throughput is associated with an extension to the duration of works and not associated with any increase to the daily throughput limit, or operation of any additional crushing and screening equipment. Furthermore, the Licence Holder has advised that

<p>MAC (DWER-801164602-366189)</p>	<p>MAC indicated that in the absence of updated air quality modelling it could not accurately assess the potential change to dust emissions and associated risks to rock art or visitors to Nganjarli. MAC requested that DWER review and update the risk assessment for L9426/2024/1 in the context of the proposed additional throughput to ensure current monitoring and mitigative strategies are adequate for the protection of rock art and cultural amenity.</p>	<p>crushing and screening activities will be limited to one crushing and screening circuit operating at Site F only. On this basis the Delegated Officer has determined that the emissions profile associated with crushing and screening activities will not change and therefore the determined risk associated with dust emissions remains the same.</p> <p>In its assessment the Delegated Officer reviewed the existing Licence conditions and management controls relating to dust and determined that the existing Licence conditions are appropriate for managing the continued operation of the crushing and screening equipment. The Delegated Officer notes that works are required to cease by 31 July 2025 as determined by the Minister in response to Appeal 016/24.</p> <p>The assessment under Part V of the EP Act is limited to risks associated with crushing and screening activities and does not include risks associated with extraction of material, including blasting. Impacts to rock art from blasting is managed under MS1180 via the Cultural Heritage Management Plan.</p>
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