



## Application for Works Approval

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

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**Works Approval Number** W6630/2021/1

**Applicant** Perdaman Chemicals and Fertilisers Pty Ltd

**ACN** 121 263 741

**File number** DER2021/000654

**Premises** Perdaman Urea Project

Part of Lot 3016 on DP42282 Crown Land Title Volume LR3139 Folio 39

Part of Lot 3015 on DP42282 Crown Land Title Volume LR3139 Folio 38

Part of Lot 3012 on DP42282 Crown Land Title Volume LR3139 Folio 35

Part of Lot 553 on DP406755 Crown Land Title Volume LR3167 Folio 958

Part of Lot 556 on DP406755 Crown Land Title Volume LR3167 Folio 961

Part of Lot 557 on DP406755 Crown Land Title Volume LR3167 Folio 962

As defined by the premises maps attached to the issued works approval

**Date of report** 14/07/2022

**Proposed Decision** Works approval granted

**Paul Newell**

**Senior Manager, Process Industries**

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

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## 1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W6630/2021/1 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 Fertilisers Pty Ltd (the applicant) is proposing to develop a urea production facility (urea plant) on the Burrup Peninsula (**Error! Reference source not found.**), approximately 9km north east of Dampier. On 16 November 2021, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act) for the construction of a concrete batch plant and mobile crushing and screening plant to support construction of the urea plant.

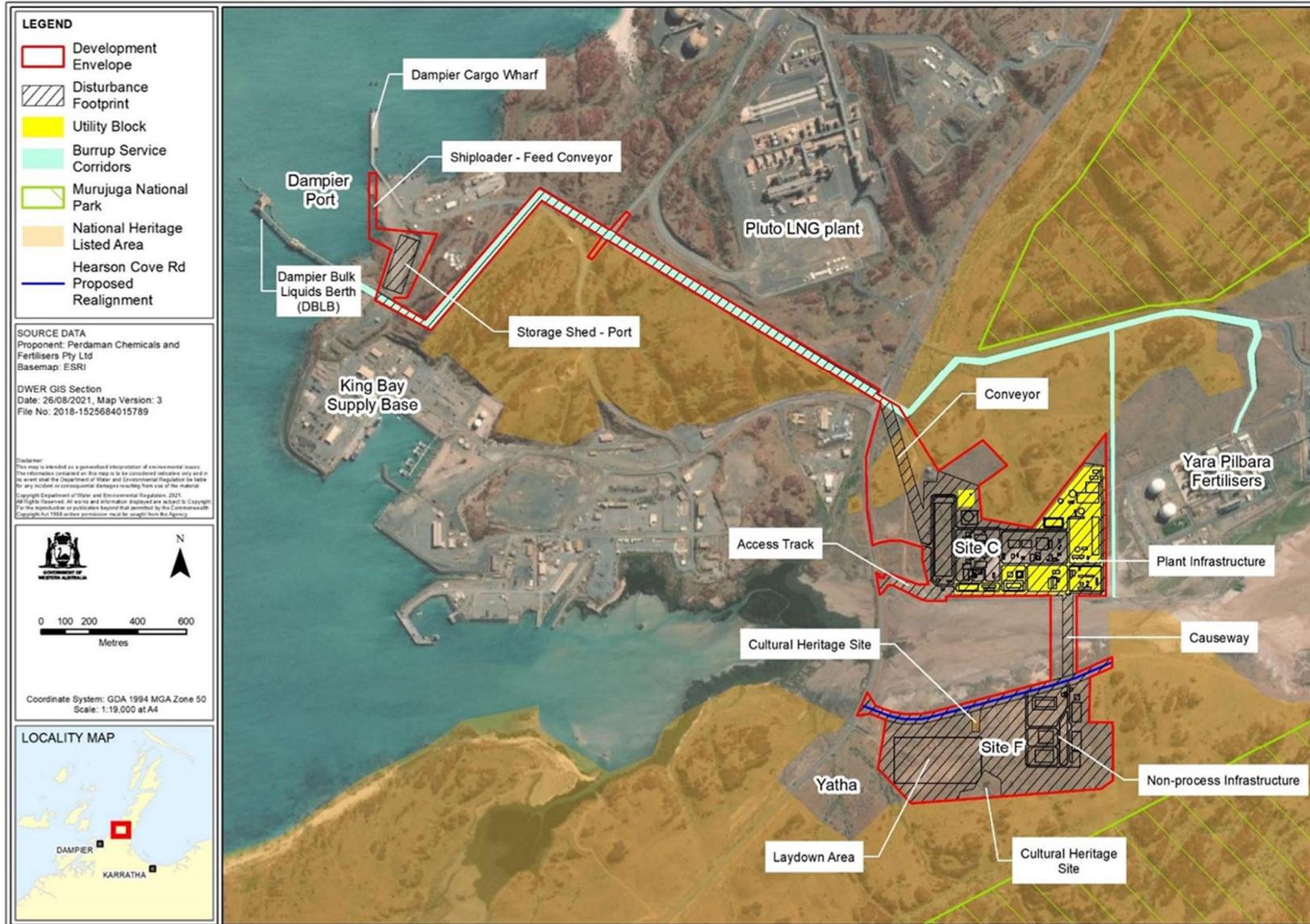
Bulk earthworks associated with the urea plant will include the use of a mobile crushing and screening plant for processing rock excavated from the site. Processed rock material will be used as fill to level the site in preparation for construction of the urea plant and pavement materials for site roads. The mobile crushing and screening plant will be used at various locations within the prescribed premises boundary (shown in W6630/2021/1). The mobile crushing and screening plant will only operate at locations within the approved disturbance footprint – clearing boundary. Excavated material will be stockpiled up to 5m in height near the mobile crushing and screening plant.

Information provided in the application indicates that concrete from the concrete batching plant will be used within the project development envelope, which approximately represents the premises boundary for the urea production facility once operational. The *Environmental Protection Regulations 1987* (EP Regulations) defines the activity of concrete batching as prescribed as being:

*Concrete batching or cement products manufacturing: premises on which cement products or concrete are manufactured for use at places or premises other than those premises.*

Therefore, the concrete batching plant proposed by the applicant does not meet the description of category 77 and is not a prescribed activity for regulation under Part V of the EP Act. On the 28 February 2022 the applicant requested to remove category 77 from the works approval application and as a result, concrete batching activities have been excluded from assessment in this report (refer to section 2.4).

Noting the above, the premises relates to category 12 and the assessed production / design capacity under Schedule 1 of the EP Regulations which are defined in works approval W6630/2021/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6630/2021/1.



**Figure 1: Perdaman Urea Project – Regional location**

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## 2.3 Part IV of the EP Act

The Perdaman Urea Project was referred to EPA under Part IV of the EP Act on 7 May 2018 and was assessed through a Public Environmental Review (PER) assessment process. The EPA released its report and recommendation on the project (EPA Report 1705) and the Ministerial Statement (MS) 1180 was granted on 24 January 2022. The approved proposal is to construct and operate a urea production plant with a nominal production capacity of about 2 million tonnes per annum (Mtpa) on Sites C and F within the Burrup Strategic Industrial Area (BSIA) on the Burrup Peninsula.

MS 1180 Conditions 3-3, 4-3, 5-3, 7-2, 8-2, 9-2 and 10-2 require revised environmental management plans and conditions 6-3 and 7-1 require supplementary studies. These documents must be submitted at least six months prior to ground disturbing activities. The applicant 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 conditions.

A summary of conditions relevant to the works approval is included in Table 1.

**Table 1: Summarised conditions of MS 1180 relevant to Part V assessment of the category 12 proposal**

Environmental Factor	Condition/s	Condition summary
Air quality management	2-1 2-3 2-4	<p>The proponent shall ensure that implementation of the proposal achieves the following environmental outcome:</p> <p>(1) ensure that no air emissions from the proposal have an adverse impact accelerating the weathering of rock art within Murujuga beyond natural rates.</p> <p>The proponent must not undertake the Commencement of Operations until the CEO has confirmed in writing that the Air Quality Management Plan addresses the requirements of condition 2-3.</p>
Greenhouse gas management plan	3-1 3-2 3-3	<p>The proponent shall take measures to ensure that net greenhouse gas emissions do not exceed a series of tapering volumes of CO<sub>2-e</sub> tonnes, up until 1 July 2049 when net zero tonnes of CO<sub>2-e</sub> emissions must be achieved.</p> <p>The proponent must not undertake the commencement of Ground Disturbing Activities until the CEO has confirmed in writing that the Greenhouse Gas Management Plan satisfies the requirements of condition 3-3.</p>
Flora and vegetation	4-1 4-2 4-3 4-4 4-7	<p>The proponent shall implement the proposal to meet the following environmental outcomes:</p> <p>(1) the extent of native vegetation clearing within the development envelope shall not exceed 73.05ha; and</p> <p>(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> <p>The proponent must not commence Ground Disturbing Activities until the CEO has confirmed in writing that the Flora Management Plan submitted under condition 4-3 satisfies the requirements of condition 4-7.</p>

		Any revision of the Flora Management Plan submitted to the CEO shall include provisions to manage impacts from dust and changes to surface water and groundwater.
Terrestrial fauna management	5-1 5-2 5-3 5-4	<p>The proponent is restricted from clearing specific vegetation species that may provide habitat to fauna. Further that impacts to short-range endemic fauna species be avoided where possible.</p> <p>The proponent must not commence Ground Disturbing Activities until the CEO has confirmed in writing that the Fauna Management Plan and the Threatened Species Management Plan satisfy the requirements of condition 5-3.</p> <p>Any revision of the Fauna Management Plan submitted to the CEO shall include provisions to manage impacts from dust, lighting, noise and vibration.</p>
Acid sulphate soils	7-1 7-2	<p>The proponent shall undertake intrusive acid sulfate soils investigations in accordance with the requirements of the DWER's guideline on the Identification and investigation of acid sulfate soils and acidic landscapes (DER 2015) at least six months prior to Ground Disturbing Activities.</p> <p>In the event that acid sulfate soils are disturbed, the proponent shall treat and manage acid sulfate soils in accordance with the requirements of DWER's guideline on the Treatment and management of soil and water in acid sulfate soil landscapes (DER, 2015).</p>
Surface water	8-1 8-2	<p>The proponent shall implement the proposal to achieve the following environmental objective:</p> <p>(1) maintain the hydrological regimes and quality of surface water so that environmental values are protected.</p> <p>At least six months prior to Ground Disturbing Activities within the development envelope, the proponent shall revise and submit to the CEO the Surface Water Management Plan.</p>
Cultural heritage	9-1 9-2 9-3	<p>At least six months prior to Ground Disturbing Activities, the proponent shall, in consultation with the Murujuga Aboriginal Corporation and the DPLH, revise and submit to the CEO and the Registrar of Aboriginal Sites a further version of the Aboriginal Heritage Management Plan to meet the objectives specified in condition 9-1.</p> <p>The proponent must not commence Ground Disturbing Activities until the CEO has confirmed in writing that the plan submitted under condition 9-2 satisfies the requirements of condition 9-2.</p>
Light management	10-1 10-2 10-3	<p>The proponent shall implement the proposal to meet the following environmental objective:</p> <p>(1) 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 to Hearson Cove and Deep Gorge, are protected.</p> <p>The proponent must not commence Ground Disturbing Activities until the CEO has confirmed in writing that the (revised) Light Management Plan satisfies the requirements of condition 10-2.</p>

To ensure heritage and cultural values are continued to be considered in a holistic way, the EPA has recommended that Murujuga Aboriginal Corporation be consulted by the proponent when it submits and reviews management plans for key environmental factors.

On 6 July 2022, the applicant received final notification from the EPA that it had complied with the requirements specified in Table 1 above in accordance with the Part IV approval (MS1180) for the management plans required at least 6 months prior to Ground Disturbing Activities.

**Key determination:** The scope of this assessment is limited to emissions and discharges relevant to crushing and screening. In accordance with DWER's *Guidance Statement: Setting Conditions*, conditions of a Part V works approval 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."

Based on conditions applied through Ministerial Statement 1180, the Delegated Officer has determined not to unnecessarily duplicate the requirements of MS 1180, or reassess the following Environmental Factors already assessed through EPA Assessment 1705:

- Greenhouse gas emissions
- Dust, as so far as it relates to impacts to terrestrial fauna and vegetation
- Acid sulfate soils
- Terrestrial fauna, including potential impacts from dust, noise and vibration
- Flora and vegetation, including potential impacts from dust and changes to surface water quality and/or groundwater regimes
- Surface water management
- Groundwater protection
- Light management

EPA Assessment 1705 has identified that air emissions from the proposal are required to be regulated by the DWER under Part V of the EP Act. Air emissions will be regulated under Part V of the EP Act to achieve the environmental outcomes and objectives established by any conditions under Part IV of the EP Act.

### 2.3.1 Consideration of impacts of the proposal on rock art

The EPA considers there may be a threat of serious or irreversible damage to rock art from industrial air emissions (in particular urea particulates and ammonia) from the proposal accelerating the natural weathering. The EPA considers that there is a lack of scientific consensus about potential residual cumulative impacts on the significant environmental values (including social surroundings values) associated with rock art within Murujuga. The EPA recommended that no air emissions from the proposal have an adverse impact accelerating the weathering of rock art within Murujuga beyond natural rates.

Weathering impacts to rock art may be accelerated by the cumulative emissions from a range of industrial operations in the Burrup and therefore risk management and monitoring needs to be considered in this context. The Murujuga Rock Art Strategy sets out a long-term framework for the management and monitoring of environmental quality to protect the rock art on Murujuga from these emissions. In addition, the Murujuga Rock Art Monitoring Program will be implemented to monitor, evaluate and report on changes and trends in the integrity of rock art, specifically to determine whether anthropogenic emissions are accelerating the natural weathering, alteration, or degradation of the rock art (EPA Assessment Report 1705).

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.

This assessment considers dust risks in the context of the rock art from the crushing and screening activities, the duration of these activities and the proposed controls.

## 2.4 Exclusions to this assessment

The current works approval application does not authorise future operations, which will be the subject of a subsequent licence application under Part V of the EP Act. Both EPA and Part V will consider risk of impact to rock art from air emissions through respective regulatory frameworks when assessing proposed plant and operations.

The following matters are out of the scope of this assessment and have not been considered within the technical risk assessment detailed in this report:

- concrete batching, where batching is undertaken on the premises and for use at the premises;
- preparatory works unrelated to the prescribed activity, such as clearing, levelling and construction of access roads, carparks, laydown areas, office buildings, workshops, warehouse/storage, and construction of hardstands for use in construction works;
- vehicle movements on public roads;
- urea plant construction and commissioning; and
- those Environmental Factors already assessed through EPA Assessment 1705 and listed in the key determinations of section 2.3 of this Decision Report.

The works approval is related to category 12 activities only and does not offer the defence to offence provisions in the EP Act (see s.74, 74A and 74B) relating to emissions or environmental impacts arising from non-prescribed activities, including those listed above.

### 2.4.1 Urea plant

This application is for the preliminary works associated with crushing and screening, which could be described as site preparation works.

The EPA Assessment Report 1705 expressed the expectation that operating conditions for the Perdaman Urea Plant should include stack emission limits that are:

- commensurate with the use of contemporary best practice air pollution control technology within the proposed facility;
- consistent with the recommendations and air quality standards derived from the Murujuga Rock Art Strategy studies to protect rock art.

DWER will give consideration to the appropriate standards and monitoring requirements at the time of assessing any future application for a urea processing plant.

### 2.4.2 Concrete batching plant

Although excluded from regulation under a Part V works approval and/or licence, the Delegated Officer notes the applicants must still comply with the *Environmental Protection (Concrete Batching & Cement Product Manufacturing) Regulations 1998* (Concrete Batching Regulations). The delegated officer considers dust from the concrete batching plant to be adequately regulated through these regulations. Specifically, the equipment control requirements or r.4 to r.10, and management control of r.3(1) for the activity to “not carry on... unless it is carried on in such a manner that no visible dust escapes from the premises...”.

### 3. 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.

#### 3.1 Source-pathways and receptors

##### 3.1.1 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 2. The table also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

**Table 2: Proposed applicant controls during operation of crushing and screening plant**

Emission/ Pathway/Impact	Sources	Proposed controls
Dust – windborne pathway to residential receptors impacting public health and/or amenity  Particulate matter depositing on rock art (windborne pathway) resulting in abrasion.	Crushing of generally granohpyte/sand/ alluvium material, vehicle movements, lift-off from stockpiles and earthworks.	A water cart will 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.  Water systems will be used as required to minimise the generation of dust at material transfer points, crusher and at the materials stockpiles.  Excavated material will be stockpiled up to 5m in height near the mobile crushing and screening plant.
Noise – windborne pathway to residential receptors resulting in impacts to amenity	Crushing of material, vehicle movements, lift-off from stockpiles and earthworks.	Construction activities will be carried out predominantly during daylight hours.  All construction work will be carried out in accordance with environmental noise control practices set out in Section 4.5 of AS 2436-2010 <i>Guide to Noise Control on Construction, Maintenance and Demolition Sites</i> .  All plant will be equipped with exhaust mufflers from the Original Equipment Manufacturer (OEM) or systems meeting or exceeding the OEM specifications.  Air conditioners will be oriented away from receivers where practicable.  Turning off noisy equipment when not in use.  Siting – premises is located 8 km from the nearest residential receptor.
Hydrocarbons – direct discharge to ground resulting in soil and groundwater	Screening plant  Refueling equipment  Machinery	All minor volumes of chemicals will be stored on or within a bunded structure with capacity 110% 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

Emission/ Pathway/Impact	Sources	Proposed controls
contamination*	maintenance	<p><i>Australian Standard AS1940:2004 – The storage and handling of flammable and combustible liquids.</i></p> <p>Chemicals, oily or contaminated products that are no longer required will be removed from site by licenced controlled waste contractor. Hazardous waste materials and dangerous goods will be disposed of in accordance with the relevant legislation at approved and certified facilities.</p> <p>Servicing of mobile plant will be conducted within an earthen bunded area to minimise risk to surrounding environment on-site.</p> <p>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> <p>No vehicle or mobile plant refuelling shall occur within 50m of a watercourse or intertidal zone.</p> <p>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 or disposal.</p>
Contaminated stormwater – direct discharge to the environment*	Screening plant Refueling equipment Machinery maintenance	<p>As a primary control, an earthen bund will be installed and maintained around the premises boundary that:</p> <ul style="list-style-type: none"> <li>prevents surface water ingress into the premises; and</li> <li>prevents surface water run-off from the crushing and screening plant and associated processed material stockpiles being discharged from the premises.</li> </ul>
Lighting impacting marine fauna behaviour and/or public amenity*	Screening plant	<p>Directional lighting used.</p> <p>Operated predominantly during daylight hours.</p> <p>Operated only during daylight hours during winter months.</p>

\* Managed under Part IV

### 3.1.2 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.

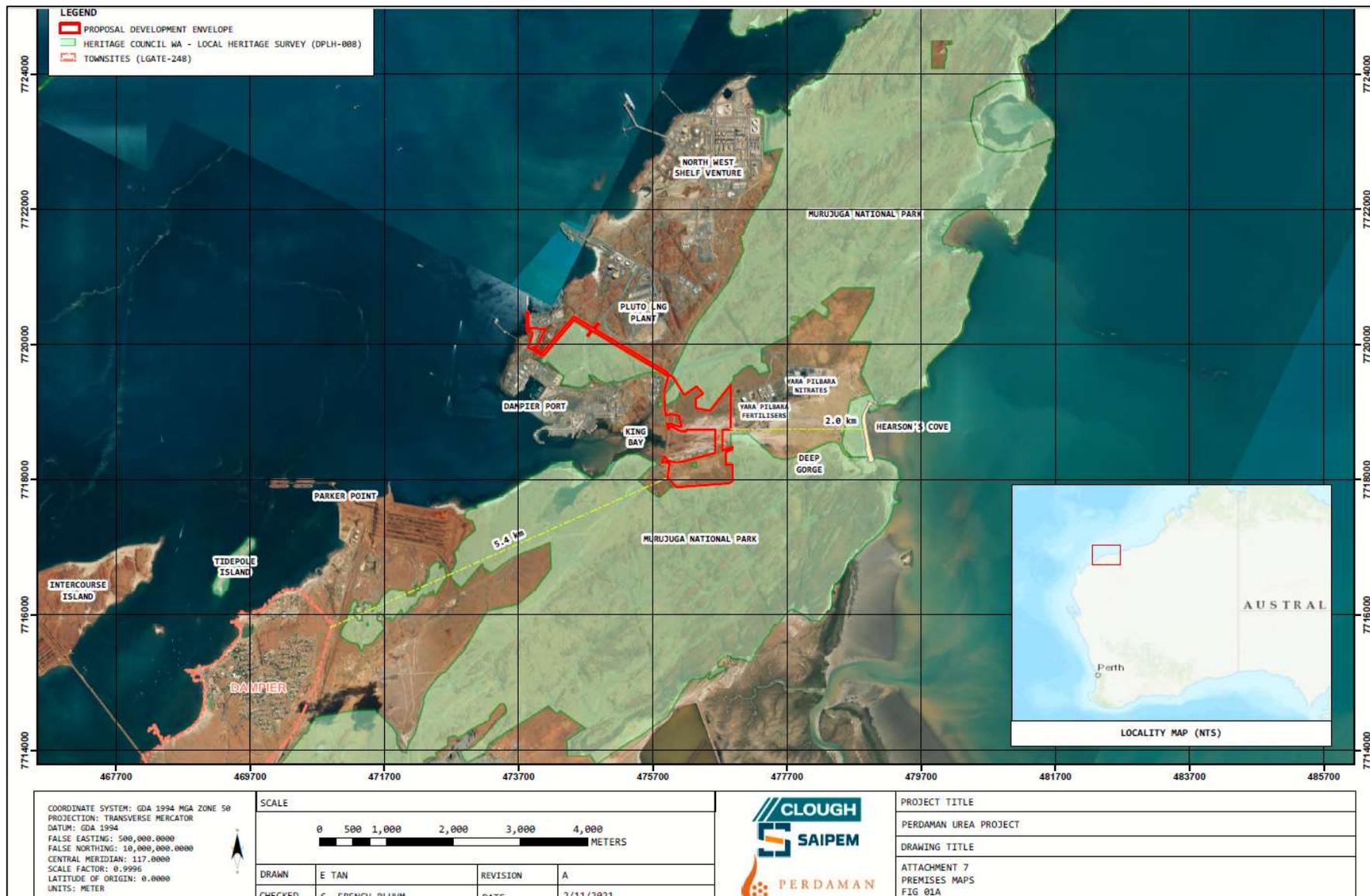
**Error! Reference source not found.** and Figure 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

**Table 3: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Neighboring industrial premises	Immediately adjacent to the Premises – Yara Pilbara Fertiliser;

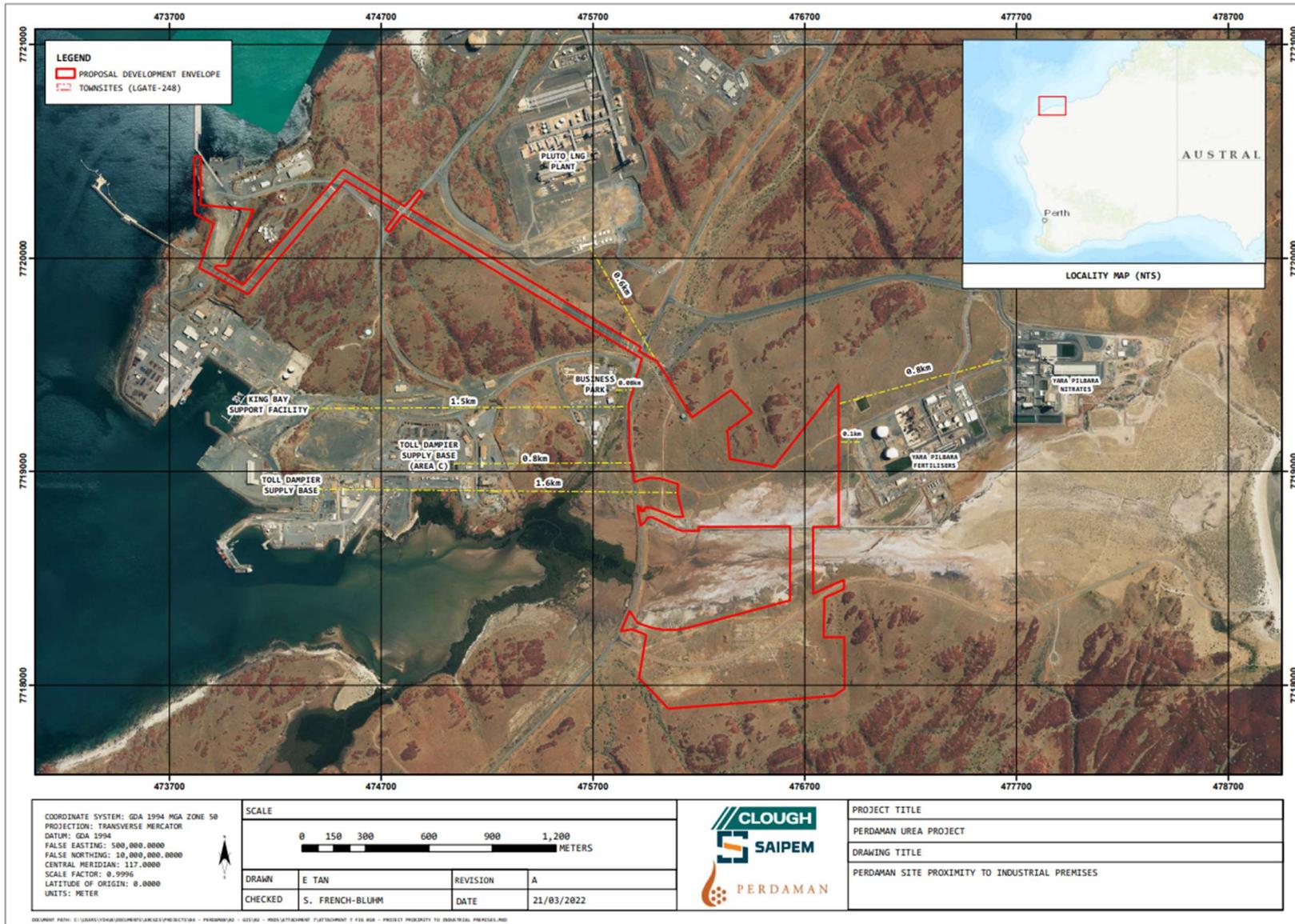
	and Business Park. Toll Energy logistics, 1 km west from premises boundary
Hearson's Cove: a popular public recreation and fishing beach	Approximately 2 kilometres east of the premises boundary
Dampier Townsite	Approximately 5.4 kilometres south-west of the premises boundary
<b>Environmental receptors*</b>	<b>Distance from prescribed activity</b>
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 the premises boundary
Northern quoll (Endangered)	Within the premises boundary (beyond the clearing zone)

\* Managed under Part IV



**Figure 2: Distance to sensitive receptors, including recreational areas**

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**Figure 3: Distance to industrial receptors**

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## 3.2 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 3.1. 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 3.1), 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 4.

Works approval W6630/2021/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 4 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises i.e. crushing and screening activities. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

**Table 4: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and operation**

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Construction</b>								
Construction, mobilisation and positioning of infrastructure.	Dust	Air / windborne pathway causing impacts to health and amenity	Industrial site adjacent to premises	Refer to Section 3.1	C = Slight L = Rare <b>Low Risk</b>	Y	Condition 1, 2 and 3	Applicant controls are conditioned in the works approval.
Vehicle movements on unsealed access roads Installation of crushing and screening plants. Reversing alarms on vehicles.	Noise		Residential receptors 5.4km away not expected to be impacted during short-term construction	Refer to Section 3.1	C = Slight L = Rare <b>Low Risk</b>	Y		Applicant controls are conditioned in the works approval. <i>Environmental Protection (Noise) Regulations 1997</i> apply
<b>Operation (including time-limited-operations operations)</b>								
Cat 12 Short-term screening, crushing, unloading, loading and storage of material Vehicle movements	Dust	Air / windborne pathway causing impacts to health and amenity	Industrial site adjacent to premises Residential receptors 5.4km away	Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	Conditions 1, 4, 5 and 6	Applicant controls are conditioned in the works approval.
		Deposition of particulate matter on rock art causing erosion through abrasion	Within and immediately adjacent to premises boundary	Refer to Section 3.1	C = Severe L = Rare <b>High Risk</b>	Y	Conditions 1, 4, 5 and 6	Applicant controls are conditioned in the works approval.
	Noise	Air / windborne pathway causing impacts to health and amenity	Industrial site adjacent to premises Residential receptors	Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	Conditions 1, 4, 5 and 6	Applicant controls are conditioned in the works approval. <i>Environmental Protection (Noise)</i>

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Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
			5.4km away					<i>Regulations 1997 apply.</i>
	Hydrocarbons (associated with operational activities – equipment, machinery, generators)	Overland transport causing impacts to surface water and leaching through soil profile to cause impacts to groundwater	Seasonal creek within the premises mudflats between Site C and site F Shallow groundwater	Refer to Section 3.1	N/A	N/A	Managed under MS1180	N/A
	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Seasonal creek within the premises Mudflats between Site C and site F	Refer to Section 3.1	N/A	N/A	Managed under MS1180	N/A
	Leachate from disturbed acid sulphate soils	Overland transport causing impacts to surface water and leaching through soil profile to cause impacts to groundwater	Seasonal creek within the premises Mudflats between Site C and site F Shallow groundwater	Refer to Section 3.1	N/A	N/A	Managed under MS1180	N/A
	Light overspill	Impacts to amenity at nearby recreational areas from light overspill Impacts to fauna	Recreational users Environmental receptors in King Bay	Refer to Section 3.1	N/A	N/A	Managed under MS1180	N/A

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.

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## 4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

**Table 5: Consultation**

Consultation method	Comments received	Department response
Application advertised on the department's website on 17 January 2022	No public submissions were received.	N/A
City of Karratha advised of proposal on 17/01/2022	<p>City of Karratha replied on 9/02/2022.</p> <p>Perdaman Chemicals and Fertilisers has lodged a Form 1 Development Assessment Panel Development Application for the proposal to construct and operate a Urea Production Facility across the parcels of land outlined in this Works Approval application. The City is currently assessing this application and is required to provide its Responsible Authority Report to the DAP Secretariat by 22 March 2022.</p> <p>In principle the City has no objection to this forming part of the development application nor being a part of the overall component of the construction phase of the proposed development.</p>	<p>The applicant has requested that Category 77 activities be retracted from the application as concrete manufacturing will be conducted for use within the premises. The applicant has confirmed that the facility will be operated in accordance with the Concrete Batching Regulations.</p> <p>The delegated officer notes that the Regional Joint Development Assessment Panel has approved the application subject to conditions in DAP/21/02155.</p>
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal on 17/01/2022	No comments received.	N/A
Department of Biodiversity, Conservation and Attractions (DBCA) advised of proposal on 17/01/2022	<p>DBCA replied on 27/01/2022</p> <p>DBCA has provided comment on the Perdaman Urea Project to DWER during the environmental impact assessment process under Part IV of the EP Act, and the capacity for the DWER to assess the application and apply appropriate regulatory measures to the prescribed premises under Part V of the EP Act, DBCA has no comments on the application.</p>	N/A
Water corporation advised of proposal 17/01/2022	No comments received.	N/A

Murujuga Aboriginal Corporation (MAC) advised of proposal 17/01/2022	No comments received.	N/A
Friends of Australian Rock Art (FARA) advised of proposal 17/01/2022	FARA replied on 17 February 2022. A summary of comments is provided in Appendix 2.	Refer to Appendix 2
Conservation Council of Western Australia (CCWA) advised of proposal 17/01/2022	CCWA replied on 16 February 2022. A summary of comments is provided in Appendix 2.	Refer to Appendix 2
Yara Pilbara Nitrates advised of proposal 17/01/2022	Yara replied on 17/01/2022 with no comments.	Refer to Appendix 2
EPA Services Directorate	<p>It should be noted that Condition 3 – Flora and vegetation and Condition 5 of MS 1180 include specific requirements relating to managing dust impacts on flora and vegetation and terrestrial fauna. These requirements need to be included in a revised version of the Flora Management Plan and the Fauna Management Plan and/or Threatened Species Management Plan and would cover the proposed crushing and screening activities provided that they are undertaken within the approved disturbance footprint for the proposal (See Figure 2 in MS 1180).</p> <p>EPA Services Directorate considers that specific works approval conditions in relation to Environmental Factors conditioned in MS 1180, are not required, including for surface water management and groundwater protection during construction and operation of crushing and screening equipment.</p> <p>In addition, Conditions 3, 4, 5, 8, 9, and 10 in MS 1180 include a requirement that the proponent must not commence Ground Disturbing Activities until the CEO of the DWER has confirmed in writing that the relevant plans are satisfactory, the EPA recommends that the Works Approval be issued after the revised management plans required by Conditions 3-3, 4-3, 5-3, 8-2, 9-2, and 10-2 in MS 1180 have been approved by the CEO of the DWER.</p>	Noted. The Delegated Officer agrees that MS 1180 adequately regulates these Environmental Factors and has opted not to reassess or condition against the associated risks. This position is in keeping with DWER's published guidance.
Applicant was provided with draft documents on 1 April 2022	<p>Minor comments provided.</p> <p>The applicant noted that the issue of the works approval should not be contingent on the approval of the Air Quality and Acid Sulfate Soils Management Plans by the CEO of DWER in accordance with MS1180.</p>	Noted and accepted. The issue of the works approval has not been made ahead of the CEO approving any management plan required under MS1180 at least 6 months prior to Ground Disturbing Activities.

## 5. Conclusion

In granting the works approval 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*. In keeping with DWER's published guidance, the Delegated Officer has determined that the following environmental factors are managed through the Ministerial Statement (MS1180) and therefore require no further regulation under the Part V works approval:

- Dust impacts to terrestrial fauna, flora, vegetation;
- Hydrogeological and surface water management;
- Acid sulfate soils; and
- Light management.

Based on the assessment in this decision report, the Delegated Officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. DWER 2021, Murujuga Rock Art Strategy. Available at: [20210811-Murujuga-Rock-Art-strategy-DL-A4-for-web-FAST-FACTS.pdf](#).
5. DWER 2021, Murujuga Rock Art Monitoring Program – Conceptual Model. Available at: [202100268 Murujuga Conceptual Model - August 2021.pdf \(www.wa.gov.au\)](#).
6. Donaldson, M., 2011, Understanding the Rocks: Rock Art and the Geology of Murujuga (Burrup 'Peninsula'), *Rock Art Research* Vol. 28, No. 1, pp. 000-000.
7. Perdaman Chemicals and Fertilisers Pty Ltd 2021. Works approval application supporting documentation, dated 16 November 2021.
8. Correspondence dated 6 December 2021 from Perdaman Chemicals providing response to further information requested by DWER on 24 November 2021.

## Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
<b>Application type</b>		
Works approval	<input checked="" type="checkbox"/>	
Date application received	16/11/2021	
<b>Applicant and premises details</b>		
Applicant name/s (full legal name/s)	Perdaman Chemicals and Fertilisers Pty Ltd	
Premises name	Perdaman Urea Project	
Premises location	Part of Lot 3016 on DP42282 Crown Land Title Volume LR3139 Folio 39 Part of Lot 3015 on DP42282 Crown Land Title Volume LR3139 Folio 38 Part of Lot 3012 on DP42282 Crown Land Title Volume LR3139 Folio 35 Part of Lot 553 on DP406755 Crown Land Title Volume LR3167 Folio 958 Part of Lot 556 on DP406755 Crown Land Title Volume LR3167 Folio 961 Part of Lot 557 on DP406755 Crown Land Title Volume LR3167 Folio 962	
Local Government Authority	City of Karratha	
<b>Application documents</b>		
HPCM file reference number:	DWERDT527448	
Key application documents (additional to application form):	Application supporting document Request of Further information response, dated 6 December 2021 Surface water management plan Solid and liquid wastes management plan Air quality management plan	
<b>Scope of application/assessment</b>		
Summary of proposed activities or changes to existing operations.	Mobilisation and operation of a mobile temporary crushing and screening of materials to be used in construction activities	
Category number/s (activities that cause the premises to become prescribed premises)		
<b>Table 1: Prescribed premises categories</b>		
Prescribed premises category and description	Proposed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 12: Screening etc. of material	450,000 Tonnes per year	N/A
<b>Legislative context and other approvals</b>		
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Assessed under Part IV <input checked="" type="checkbox"/>

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 1180 EPA Report No:1705
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Reference No: 2018/8383
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input checked="" type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Approval: DAP/21/02155 Expiry date: 2026 If N/A explain why?
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A Clearing will be covered under Ministerial Statement
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Application reference No: Licence/permit No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Name: Pilbara Type: Groundwater Area and Surface Water Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Regional office: North West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input type="checkbox"/> No <input type="checkbox"/>	Aboriginal Heritage Act s.18
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A

**SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)**

Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A

## Appendix 2: Application submissions summary

Stakeholder	Summary of submission points	DWER comments
<p>Submission references: DWERDT566076; and DWERDT565129</p>	<p>Construction of the concrete batching plant and infrastructure for the crushing and screening of material involve processes that could damage or destroy important cultural sites</p>	<p>Noted. Concrete batching (Category 77) activities have not been assessed in this report (refer to section 2.4.2). These activities are subject the provisions of the <i>Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998</i>, and other legislation relating to emissions and discharges including the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</p> <p>Prior to ground disturbing activities, Perdaman must comply with MS 1180 conditions 3-3, 4-3, 5-3, 6-2, 7-1, 8-2, 9-2 and 10-2 (refer to section 2.3).</p> <p>The conditions of MS 1180 require the proponent to review management plans in consultation with the Murujuga Aboriginal Corporation or conduct additional studies.</p> <p>The proponent must not undertake the commencement of ground disturbing activities until the CEO is satisfied with the revised management plans and supplementary studies.</p> <p>Dust emission controls from crushing and screening activities are regulated under works approval W6630/2021/1 conditions. Air emissions associated with the construction and operation of the final Urea Plant will be considered through separate risk assessment on application of a works approval for those activities (refer to section 2.4.1).</p> <p>Noted. Typically a works approval consultation period is offered for 21 days. However, given the area is of outstanding conservation and heritage value, the Delegated Officer decided to extend the comment period</p>
	<p>This area of the proposed concrete plant and its associated activities is sensitive, both in terms of the physical and cultural environment, without substantial controls in place to prevent and manage potential adverse impacts</p>	
	<p>There is a significant potential for pollution to occur as a result of these the Concrete batching plant and screening operations listed in this Works Approval, without proper controls to prevent pollution of water and air, which could adversely impact the Murujuga rock art and surrounding environment.</p>	
	<p>There are real risks of damage to cultural and environmental heritage from both physical impact and pollution (dust, air and water) without adequate plans and controls, or confirmed funding for the Urea project, of which this Works Approval forms a part; without funding there is no certainty that the entire Urea project will proceed even if damage has been caused through the actions outlined in this Works Approval.</p>	
	<p>The advertised date for public consultation was changed to February 11 after the initial announcement of February 17, which could result in concerned individuals and organisations being locked out of the consultation process.</p>	

		<p>to 28 days.</p> <p>The application was advertised on the 13 January 2022 and removed from webpage on 12 February 2022.</p>
	The proposed operations include polluting processes with inadequate management controls in environmentally and culturally sensitive areas.	As above.
	The proposed operations draw on the management controls of EPA Report 1705, which do not adequately address the controls specific to a concrete batching plant.	As above.
	The proposed operations have not been assessed for impacts from the Yara Pilbara Nitrates contamination and remediation works.	<p>Noted. The scope of this assessment and works approval is limited to the emissions and discharges associated with crushing and screening operations within the premises.</p> <p>As discussed in section 2.4.1, further consideration will be given to the environmental risks associated with the urea plant under separate assessment. The assessment will give consideration to the current environmental context, including cumulative impacts from existing industry.</p>
	Controls for the management of surface waters and wastewater (e.g. washdown) are inadequate.	Noted. Surface water management is regulated under MS 1180 requiring the implementation of a Surface Water Management Plan (condition 8-1).
	The proposal should not commence operations until air quality management criteria have been established and an appropriate monitoring program be defined.	<p>Noted. Air quality management is regulated under MS 1180. Condition 2-1 of MS 1180 requires the applicant to ensure that "...no air emissions from the proposal have an adverse impact accelerating the weathering of rock art...".</p> <p>The delegated officer has considered the potential impacts of the proposal to rock art (refer to section 2.3.1). Controls have been applied to the works approval for the management of dust from crushing and screening and wind erosion of open areas and stockpiles.</p>

		There are multiple industries located on Murujuga and surrounds which could potentially impact rock art, therefore a coordinated approach is most appropriate. The Murujuga Rock Art Strategy establishes the long term basis for coordinated monitoring and analysis of changes to rock art on Murujuga and, if appropriate, implementation of management or mitigation measures.
	Controls are required for the management of dust and surface water runoff at the crushing and screening plant.	Noted. Crushing and screening infrastructure will be required to be installed with dust suppression equipment fitted. In addition, controls have been placed on the works approval for the management of wind erosion (dust) from stockpiles and open areas.  Conditions have been placed on the works approval for the containment of stormwater and wastewaters from the crushing and screening areas to prevent surface water run-off.
	Stakeholders have not had an opportunity to comment and evaluate whether the conditions to be set by DWER will be sufficient to protect the Murujuga rock art.	Noted. A 21 day appeal period is available to third parties that may have concern about, or object to the specification of any condition in the works approval, in accordance with section 102(3) of the EP Act.
	The works approval should not be granted until an application is submitted for the entire Perdaman Urea Project and EPBC approval is granted.	Noted. The scope of this assessment is focused only on the prescribed premises activities applied for. Consideration of controls on processing infrastructure for the protection of public health and the environment will be given at the time of subsequent application/s.  On 26 February 2022, EPBC approval was granted under sections 130(1) and 133(1) of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth) for the applicant to construct and operate a urea plant on the Burrup Peninsula.