Decision Report

Application for Licence

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

Licence Number	L9289/2021/1
Applicant	GWR Group Limited
ACN	102 622 051
File Number	DER2021/00143
Premises	Wiluna West Project Sandstone-Wiluna Road, WILUNA Legal description Partially within M53/1087 As defined by the coordinates in Schedule 1 of the Licence
Date of Report	12 August 2021
Decision	Licence granted

Lauren Edmands

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Date: 2021.08.12 13:20:09 +08'00'

Lauren Edmands

Manager, Resource Industries

REGULATORY SERVICES

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 operation of the Wiluna West Project (the premises). As a result of this assessment, Licence L9289/2021/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

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

2.2 Application summary and overview of Premises

On 18 March 2021, GWR Group Limited (the applicant) applied for a licence to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The application is relating to the category 5: processing or beneficiation of metallic or non-metallic ore activities and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in Licence L9289/2021/1.

The Wiluna West Project (the premises) also known as the 'C4 (Stage 1) iron ore development' is approximately 30 km south-west of Wiluna in the north-eastern Goldfields of Western Australia and will be partially located within mining tenement M53/1087.

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 Licence L9289/2021/1.

The applicant has approval from Department of Mines, Industry Regulation and Safety (DMIRS) for a 10 million tonnes per annum (Mtpa) development involving mining of the Bowerbird, C3 and C4 iron ore deposits (Reg ID 55179); and a 1.5 Mtpa development of the C4 deposits high grade iron ore (referred to as Stage 1) which includes an 18.6 km haul road, a crushing / screening plant and associated infrastructure (Reg ID 86015)

The licence application is related to the operation of Category 5 infrastructure that was previously constructed under works approval W6444/2020/1. See section 2.2.1.

2.2.1 Recent works approval

On 4 September 2020, GWR Group Ltd applied for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application was to undertake the construction works, commissioning, and time limited operations relating to category 5 activities at the at C4 (Stage 1) iron ore development at the premises. Works Approval W6444/2020/1 was granted, with conditions, on 30 November 2020.

Construction works of the crushing/screening plant were completed in December 2020 with commissioning being completed in January 2021.

2.2.2 Compliance inspections and compliance history

The applicant submitted documents for the Wiluna West Project – C4 Deposit including the Environmental Compliance Report and Environmental Commissioning Report for Works Approval W6444/2020/1 on 5 March 2021.

The department conducted a review of the environmental compliance and commissioning

reports and noted five departures as listed within the commissioning report as detailed below:

Condition 1 - Stormwater catchment trench

Rather than a trench around the perimeter of the Run of Mine pad (ROM), the design of the stormwater catchment trench has been amended to be one trench at the western end to which the crusher/stockpile area slopes down towards, see Figure 2. This trench has the same capacity as that which is outlined in Table 1 of Works Approval W6444/2020/1. Refer to section 2.2.3.

Condition 2 – Environmental Compliance Report submission

The Environmental Compliance Report was not submitted within the 30 calendar days of completion of construction of infrastructure as required by condition 2.

Condition 5 - Commencement of the environmental commissioning phase

The environmental commissioning phase commenced before submission of the Environmental Compliance Report as required by condition 5.

Condition 7- Environmental Commissioning Report submission

The Environmental Commissioning Report was not submitted within the 30 calendar days of completion of environmental commissioning each item of the infrastructure as required by condition 7.

Condition 9 - Commencement of time limited operations phase

The time limited operations phase commenced before the submission of the Environmental Compliance Report and Environmental Commissioning Report as required by condition 9.

The non-compliances with conditions 2, 5, 7 and 9 of Works Approval W6444/2020/1 have been referred to the department's Compliance and Enforcement division.

2.2.3 Stormwater catchment trench – Condition 1

In works approval W6444/2020/1, Table 1 included design and construction requirements regarding stormwater management. Condition 2 (b), including a stormwater catchment trench 1 m wide and 0.5 m deep around the north, east and south of the ROM (total length 185 m).

During construction, the applicant took advantage of the natural slope of the premises to amend the design of the stormwater catchment structure to be a single trench at the western end of the crusher/stockpile area. This is intended to prevent potentially contaminated stormwater from the plant and ROM area flowing into the surrounding environment.

After a rain event the stormwater will be pumped out and transported to the HDPE lined turkey's nest. The applicant will ensure a pump with sufficient pumping capacity is maintained to ensure the trench does not overflow.

It is stated that "*GWR is of the belief this serves the same purpose as per the original design and is not a material defect*."

The Delegated Officer's review of the changes to the stormwater management system has confirmed that the adjustment to the catchment trench design is minor in nature. The altered trench design is expected to achieve the same outcome as the original design which is to capture surface runoff of sediment laden stormwater and washdown water. The change does not alter this risk profile of the premises. The Delegated Officer is satisfied that works have been completed adequately, in accordance with the conditions of the works approval.

2.3 Summary of activities

2.3.1 Overview of premises

A summary of the C4 (Stage 1) Project is provided in Table 1 with an overall site layout provided as Figure 1 and layout for the crushing/screening plant provided in Figure 2.

The initial first year production is anticipated to be 1 Mtpa with the potential to expand production to 1.5 Mtpa with the progression of a cutback at C4 and possibly adjacent deposits later.

Table 1: Summary of the C4 Project (Stage 1)

Element	Description
C4 (Stage 1) Project Ore	976,000 t @ 62% Fe
Mine life	12 Months (19 months including construction, operation, and rehabilitation)
Mining method	Open pit
Total waste rock	891,898 t
Depth of pit	~ 40 m
Depth of water table	~ 50 m (40-60 m Range in C4 Area)
Area of disturbance including access (Stage 1)	101.7 ha
Water supply for operations	Water bores (C4PB01 & BBPB01)
Processing	Modular crushing and screening plant (1-1.5 Mtpa capacity)
Power generation	Portable diesel-powered generators on site
Accommodation	Rosslyn Hill Camp (off-site)
Construction commencement	Q4 2020

The key infrastructure and equipment are summarised in Table 2 with the stormwater catchment trench at the western end of the crusher/stockpile area.

Table 2: Key equipment and infrastructure to be installed

Category	Equipment and Infrastructure to be installed
5	Crushing / screening plant A mobile crushing and screening plant to provide two-stage crushing and screening and a combination of diesel/electric powered modular mounted crushers, screens, and portable conveyors.

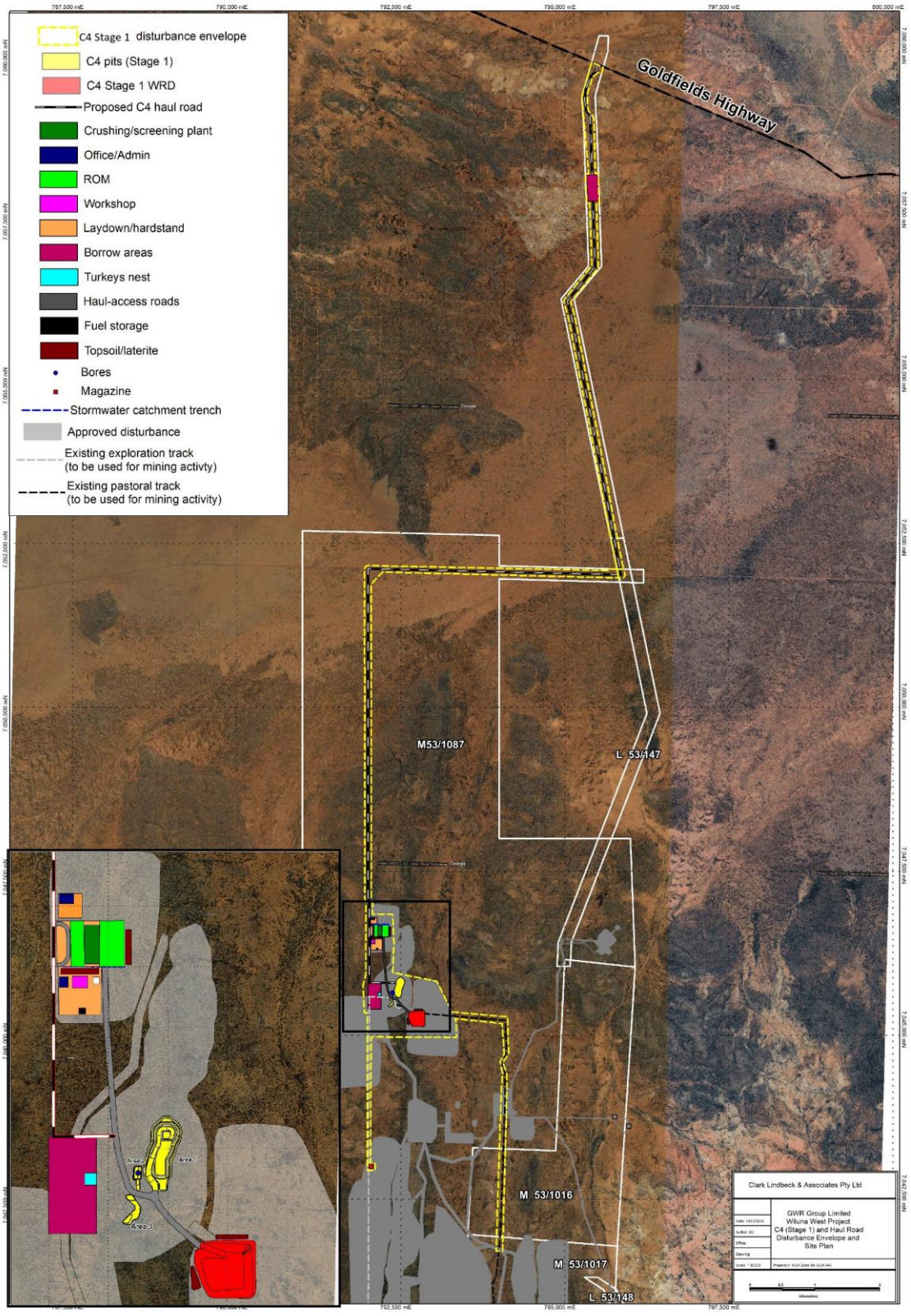

Figure 1: Overall project site layout

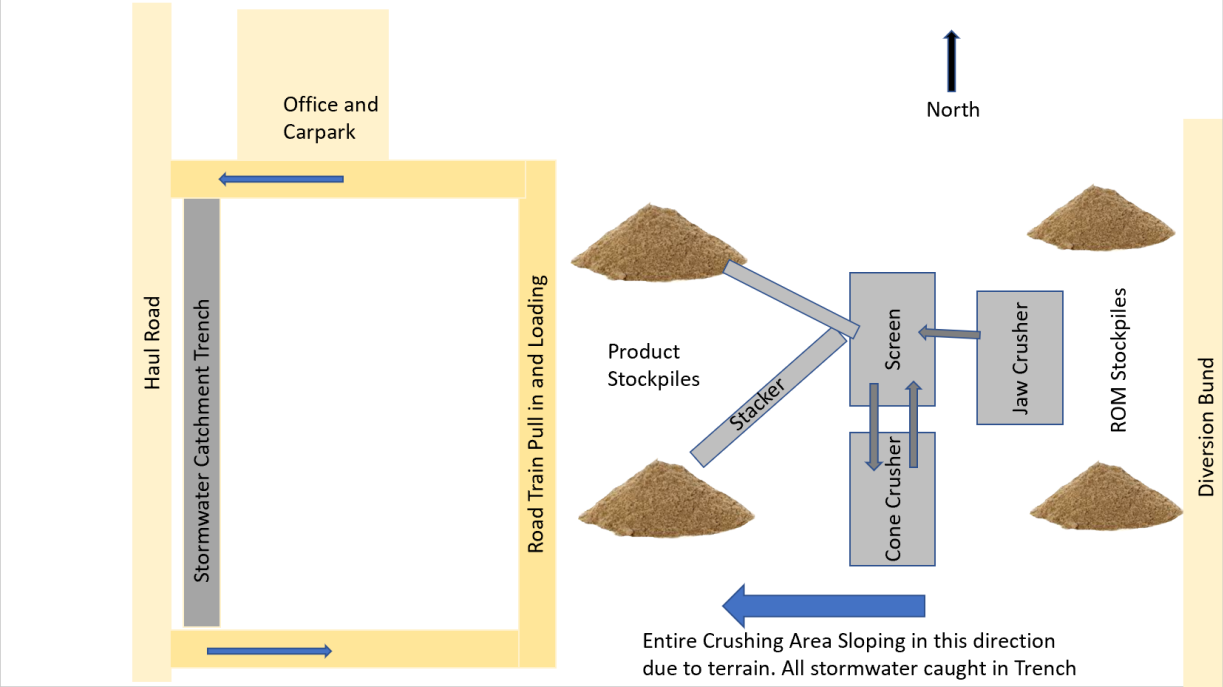

Figure 2: Site layout of crushing / screening plant

2.3.2 Ore processing

The plant will process the ore at rate of just under 1 Mtpa (dry tonnes) (maximum 1.5 Mtpa). Ore will be hauled to the ROM via a 1 km two-way haul-road from the open pit by the mining fleet and stockpiles as directed.

All ore will be transported from the pit to various ROM stockpiles which may demarcate different ROM grades and ore characteristics (e.g., high grade / low grade). The ROM will be under the control of the ROM loader operator. Traffic management will ensure positive communication prior to entry. Ore will be processed through a mobile crushing and screening circuit to produce two distinct ore products, Coarse Ore (Lump) and Fines stockpiles.

The product will be stacked in separate stockpiles (Lump and Fines) and selectively removed offsite via road trains to Geraldton.

The ROM stockpiles will have a total capacity of approximately 150,000 tonnes of ore and are anticipated to be relatively dry. Dust suppression at the ROM will be achieved via the installation of water sprays and the mobile water truck and the applicant expects moisture levels between 5-8% to minimise dust generation. Additional stockpile capacity of 50,000 tonnes will be in the direct sipping ore (DSO) products stockpiles to the west of the plant. The applicant has also installed water sprays around the product area to minimise dust generation.

Ore processing will consist of crushing and screening of the ore through a modular constructed two-stage crushing and screening plant to produce lump and fines using an electric powered modular mounted crushers, screens, and portable conveyors. The plant will produce two products: a lump product which is between 31.5 mm and 6.3 mm product and a fine product (< 6.3 mm).

The ore will be fed into the hopper of the primary crusher using a front-end loader. The crushed material from the primary crusher will then fed directly to a screen, set for a 32 mm split size. The undersize material will move to the secondary screen while the oversize material will report to the secondary crusher. The undersize material from the secondary screens will report to the fine's product stockpile and the oversize material will report to the lump product stockpiles.

Key design features of the plant design include plant operation being based on a single 12-hour

shift, 7 days per week roster. The applicant indicates that there is ample capacity in the circuit to increase production to a 24-hour, 7 day a week basis.

The ROM pad will cover an area (100 m x 200 m) with a 6 m high steel retaining wall located at the northern end of the ROM pad. This will allow the ore bin apron feeder module to abut against a 40 m long, 15 m wide ramp inclined at 10% grade to be feed by frontend loader.

Two stacker conveyors will transfer ore from the crushing and screening plant onto the Fines and Lump stockpiles in one direction. The stacker conveyors will operate a 600 mm wide belt which will be equipped with dust suppression sprays.

Front end loaders will be fitted with bucket load cells to control loading operations for main road compliance. An additional weigh bridge is located at the Rosslyn office area for secondary and spot checks (outside of the Project area).

2.4 Part IV of the EP Act

The Wiluna West Iron Ore Project (10 Mtpa project) was referred to the Environmental Protection Authority (EPA) in December 2012. The EPA determined that the environmental impacts from the project are not so significant as to warrant formal assessment and assessed as 'Not Assessed', Public Advice Given on 22 April 2013.

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 *Guidance Statement: Risk Assessments* (DER 2017).

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 operation which have been considered in this Decision Report are detailed in Table 3 below. Table 3 also details the proposed control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 3: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Operation			
Dust	Screening, crushing, unloading, loading and storage of material. Vehicle movements.	Air/windborne pathway.	• Water to be used for dust suppression is not saline. • Crusher installed with appropriate water sprays to reduce dust generation. • Dust suppression sprinklers and sprays installed at the ROM feed hopper, transfer points and on the product stockpile to control levels of fugitive dust. • Maximum moisture levels of the final product will be controlled to maintain operational efficiency from road haulage vehicles.

Emission	Sources	Potential pathways	Proposed controls
			• Water trucks will be used around the plant and on the ROM and roads as required. • Daily inspection of plant area will include observation of dust assessment and walking of plant site perimeter.
Sediment laden stormwater Washdown water contaminated with sediment and/or hydrocarbons	Screening, crushing, unloading, loading and storage of material. Vehicle movements.	Surface run off. Seepage to soil and groundwater.	• Ore stockpile and crusher area is bunded to prevent surface flows outside of this area with all run-offs directed towards the trench located at the southern end of the plant area. • Bund is constructed around the plant area. Regular inspection of bunded areas to ensure capacity is maintained. • After a rain event the storm water will be pumped out of the stormwater catchment trench and transported to the HDPE lined turkey's nest. • Pump with sufficient pumping capacity will be maintained to ensure the stormwater catchment trench does not overflow. • All hydrocarbons and dangerous goods on site will be stored and handled according to the applicable sections of the *Dangerous Goods Safety Act 2004, Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007* and *Dangerous Goods Safety (Explosives) Regulations 2007.* • Chemical storage areas bunded with a containment capacity equivalent to 110% of the capacity of any tank or 25% of the total capacity of an interlinked system. • Spillages will be cleaned up and disposed of as per appropriate safety data sheets (SDS), relevant environmental and safety guidelines and the site's environmental procedure. • Absorbent materials will be used under machinery which is likely to leak oil while under service or repair in the workshop or on stand-down. • A HDPE lined pond will be constructed to capture any potential hydrocarbon contaminated water from the washdown area and workshop. Water will be allowed to evaporate and effluent transported to a licensed disposal facility. • Daily visual inspections of HDPE lined pond will be carried out to ensure minimum 300 mm freeboard will always be maintained. If required liquid will be pumped out and transported offsite to maintain the freeboard.

3.1.2 Receptors

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

The nearest town of Wiluna is approximately 30 km to the north-east of the prescribed premises boundary. The Delegated Officer considers there is no credible pathway for impacts to human receptors because of emissions from the premises.

Table 4 below provides a summary of potential environmental receptors that may be impacted because of activities upon or emission and discharges from the prescribed premises *(Guidance Statement: Environmental Siting* (DWER 2020)).

Table 4: Sensitive environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Ecological communities (TECs and PECs) Priority 1	Wiluna West Vegetation Complex (banded ironstone formation) intersects two thirds of the prescribed premises. The crushing and screening plant is within the PEC at the north-west edge.
3 x Threatened and Priority Flora	Out of the recorded threatened / priority flora, one intersects the proposed prescribed premises boundary and two are within 1,000 m from the proposed boundary. From the crushing and screening activity, threatened / priority flora has been recorded about 2,000 m to the north, 2,700 m to the south and 3,000 m to the south-east.
Threatened Fauna	A mammal species (*Bettongia lesueur graii*) has been recorded within the proposed prescribed premises about 6 km south of the crushing and screening activity.
Surface Water Lines	No major surface water features intersect the prescribed premises boundary. However, 3 minor surface water lines (ephemeral) intersect the boundary. Minor surface water line 700 m to the east and 1,700 m to the west of the crushing and screening plant.
Rights in Water and Irrigation Act 1914 (RIWI Act) Groundwater Areas	The prescribed premise is located within the East Murchison Groundwater Area. Depth to groundwater typically 30-60 m below ground level (bgl).

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and considers 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 licence 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 5.

Licence L9289 that accompanies this Decision Report authorises emissions associated with the operation of the Premises i.e category 5 – processing (crushing and screening) of iron ore.

The conditions in the issued Licence, as outlined in Table 5 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 5: Risk assessment of potential emissions and discharges from the premises during operation

Risk Event					**Risk rating[1]** **C = consequence** **L = likelihood**	**Applicant controls sufficient?**	**Conditions[2] of licence**	**Justification for additional regulatory controls**
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Operation								
Screening, crushing, unloading, loading and storage of material. Vehicle movements.	Dust	Air/windborne pathway causing impacts to vegetation	Native vegetation. Threatened and priority flora	Refer to Section 3.1.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1	Additional regulatory controls are not required. The Delegated Officer considers the applicant's controls are sufficient to control the dust emissions from the operation of the crushing and screening plant
	Sediment laden stormwater Washdown water contaminated with sediment and/or	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Minor non perennial watercourses. Native vegetation	Refer to Section 3.1.1	C = Slight L = Rare **Low Risk**	Y	Condition 1 and 2	Additional regulatory controls are not required. The Delegated Officer considers the applicant's controls are sufficient to control the sediment laden water runoff and the washdown water during operation.

Risk Event					Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
	hydrocarbons	Seepage to soil and groundwater	East Murchison Groundwater Area (water table typically 40 m-60 m BGL)					

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.

4. Consultation

Table 6 provides a summary of the consultation undertaken by the department.

Table 6: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website (5 May 2021)	None received	N/A
Local Government Authority advised of proposal on 5 May 2021	None received	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal on 5 May 2021	None received	N/A
Applicant was provided with draft documents on 13 July 2021, and comment received on 10 August 2021.	The applicant confirmed that reference to an oil / water separator in the licence application was made in error, and that the controls for wastewater washdown do not include an oil / water separator.	DWER accept that some obsolete information had been copied from the original works approval (W6444/2020/1) application, into the licence application, and that reference to an oil / water separator was not intended as an applicant control. DWER removed reference to oil / water separator in the final licence and this decision report.

5. Conclusion

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

References

1. GWR Group Limited 2021, Works Approval Application GWR Group Limited and supplementary information.
2. Department of Water and Environment Regulation (DWER) 2020, *Guidance Statement: Environmental Siting*, Joondalup, Western Australia.
3. Department of Water and Environment Regulation (DWER) 2020, *Guideline: Risk Assessments*, Joondalup, Western Australia.
4. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.

Appendix 2: Application validation summary

<table>
<tr><th colspan="6">SECTION 1: APPLICATION SUMMARY</th></tr>
<tr><td colspan="6">Application type</td></tr>
<tr><td rowspan="5">Licence</td><td rowspan="5">☒</td><td>Relevant works approval number:</td><td>W6444/2020/1</td><td>None</td><td>☐</td></tr>
<tr><td colspan="3">Has the works approval been complied with?</td><td colspan="2">Yes ☐ No ☒
See Section 2.2.2</td></tr>
<tr><td colspan="3">Has time limited operations under the works approval demonstrated acceptable operations?</td><td colspan="2">Yes ☐ No ☒ N/A ☐</td></tr>
<tr><td colspan="3">Environmental Compliance Report submitted?</td><td colspan="2">Yes ☒ No ☐</td></tr>
<tr><td colspan="5">Date Report received: 5 March 2021</td></tr>
<tr><td colspan="2">Date application received</td><td colspan="4">18 March 2021</td></tr>
<tr><td colspan="6">Applicant and Premises details</td></tr>
<tr><td colspan="2">Applicant name/s (full legal name/s)</td><td colspan="4">GWR Group Limited</td></tr>
<tr><td colspan="2">Premises name</td><td colspan="4">Wiluna West Project</td></tr>
<tr><td colspan="2">Premises location</td><td colspan="4">Partially within M53/1087</td></tr>
<tr><td colspan="2">Local Government Authority</td><td colspan="4">Shire of Wiluna</td></tr>
<tr><td colspan="6">Application documents</td></tr>
<tr><td colspan="2">HPCM file reference number:</td><td colspan="4">DER2018/001042-5</td></tr>
<tr><td colspan="2">Key application documents (additional to application form):</td><td colspan="4">Compliance and commissioning reports
Part V licence application supporting documentation</td></tr>
<tr><td colspan="6">Scope of application/assessment</td></tr>
<tr><td colspan="2">Summary of proposed activities or changes to existing operations.</td><td colspan="4">Licence
Operation of a category 5 crushing and screening plant at GWR Group Limited Wiluna West Project</td></tr>
<tr><td colspan="6">Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories
<table>
<tr><th>Prescribed premises category and description</th><th>Assessed production or design capacity</th></tr>
<tr><td>Category 5: Processing or beneficiation of metallic or non-metallic ore: premises on which —
(a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed;
(b) tailings from metallic or non-metallic ore are reprocessed; or
(c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.</td><td>1.5 million tonnes per year</td></tr>
</table></td></tr>
<tr><td colspan="6">Legislative context and other approvals</td></tr>
</table>

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 ☐ No ☒	N/A
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes ☐ No ☒	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ☒ No ☐	Reference No: EPBC 2020/8696 – Decision: "Not a controlled action".
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ☒ No ☐	Mining lease / tenement ☒ Expiry:22/09/2031
Has the applicant obtained all relevant planning approvals?	Yes ☐ No ☐ N/A ☒	N/A
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes ☒ No ☐	CPS No: CPS No: CPS 8915/1; CPS 6726/2
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes ☐ No ☒	Application reference No: N/A Licence/permit No: N/A
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ☒ No ☐	Licence/permit No: GWL 202977(1)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ☐ No ☒	Name: N/A Has Regulatory Services (Water) been consulted? Yes ☐ No ☐ N/A ☒
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes ☐ No ☐	Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? N/A ☒
Is the Premises subject to any other Acts or subsidiary regulations (e.g. *Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx*)	Yes ☐ No ☒	
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ☐ No ☒	
Is the Premises subject to any EPP requirements?	Yes ☐ No ☒	
Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*?	Yes ☐ No ☒	Classification: N/A Date of classification: N/A