

## **Amendment Report**

## **Application for Works Approval Amendment**

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

Works Approval Number

W6772/2023/1

Works Approval

Holder

Chevron Australia Pty Ltd

**ACN** 086 197 757

File Number DER2022/000691

Premises Gorgon LNG Project

Legal description -

Part of Crown Lease L077431, Certificate of Title Volume LR3168 Folio 315, Site 1 on Deposited Plan 409277; Part of Crown Lease L077428, Certificate of Title LR3158 Folio 476, Site 5 on Deposited Plan 64220; Temporary Wastewater Injection Facilities Licence LIC00554/2009\_1\_43; Part of Revised Service Corridor Easement L641372, Certificate of Title Volume LR3142 Folio 58, Deposited Plan 91514 and; Onshore Feed Gas Pipeline Right of Way Easement L466759, Certificate of Title Volume LR3142 Folio 58,

Deposited Plan 91514.

**Date of Report** 25 November 2025

Proposed Decision Revised works approval granted

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## 1. Decision summary

Works Approval W6772/2023/1 is held by Chevron Australia Pty Ltd (Chevron, works approval holder) for the Gorgon LNG Project (the premises), located on Barrow Island.

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 construction and operation of the Premises. As a result of this assessment, Revised Works Approval W6772/2023/1 has been granted.

The Revised Works Approval issued as a result of this amendment supersedes the existing Works Approval previously granted in relation to the Premises.

## 2. Scope of assessment

#### 2.1 Regulatory framework

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

#### 2.2 Application summary

On 25 March 2025, Chevron submitted an application to the department to amend Works Approval W6772/2023/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Removal of noise attenuation requirement for the rock crusher engine;
- Expansion of approved rock crushing areas and prescribed premises boundary;
- Extension of the time-limited operational period for the dewatering facility; and
- Reduction in sampling frequency at the dewatering facility.

Additionally, following consultation, Chevron requested an amendment to extend the authorised time-limited operations period for rock-crushing activities from 27 months to 35 months. Chevron advised that, since submitting the amendment application, the works approval holder has obtained approval for additional optimisation works on the  $CO_2$  injection system which requires the rock crusher to operate for a longer duration to accommodate the expanded scope.

#### 2.2.1 Proposed amendments to category 12 activities

Chevron seeks to remove the requirement to house the rock crusher engine within a steel canopy fitted with noise reduction foam as alternative equipment was procured due to availability, cost and quarantine requirements as detailed in compliance documentation submitted to the department on 9 February 2024 for a single crushing and screening plant.

Chevron stated in the application and compliance documentation that this requirement is unnecessary as to the loudest component of the engine (the exhaust) is already silenced with a muffler and silencer enclosure; the primary noise source is the rock-crushing activity itself, which cannot be dampened; and the design of the engine bay provides sufficient airflow and thermal dissipation to maintain operability and efficiency which insulation may negatively impact (Chevron 2024). Chevron concluded that the use of noise reducing foam was unlikely to provide a measurable reduction in overall noise emissions.

On review of the compliance documentation the delegated officer determined that the infrastructure was installed according to the design and construction/installation requirements

except the noise reducing foam requirement but that the deviation was unlikely to result in an acceptable risk to environmental receptors and all other noise attenuation requirements were met

Chevron also proposes to expand approved crushing areas to include two additional sites south of the gas treatment plant, with the prescribed premises boundary amended to incorporate these areas accordingly. These new areas are shown in Figure 1 as green shaded sections labelled "Proposed".

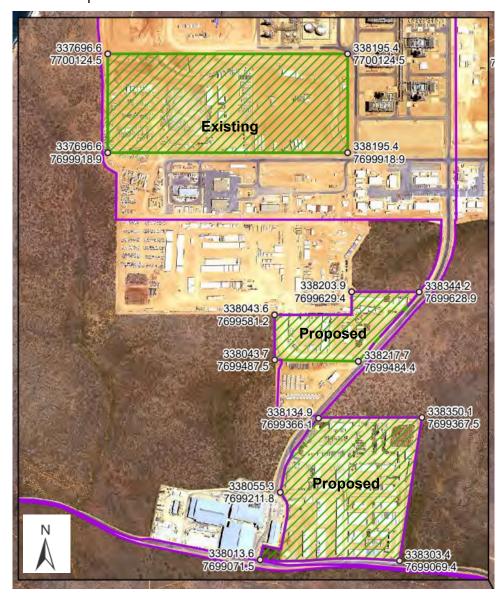


Figure 1: Proposed additional areas for crushing and screening activities, to be incorporated into the prescribed premises boundary.

#### 2.2.2 Proposed amendments to category 61 activities

Chevron is proposing to extend the duration of time-limited operations for the dewatering facility (Category 61). The current condition (Condition 14) permits the facility to operate for a maximum of 16 months from the commencement of operations. Chevron is seeking to extend this period by an additional 23 months, through to the end of 2027, to support ongoing Gorgon well-related activities. According to Chevron's application, the proposed extension remains within the design life of the conveyance infrastructure and the existing secondary containment systems around the waste storage tanks. Chevron also advised that there may be intermittent periods during the extended timeframe where the dewatering facility is placed on standby or

partially dismantled due to reduced drilling or well activity. In such instances, Chevron has stated that, prior to recommencing waste processing activities, the facility will be verified as meeting the operational requirements specified in Condition 13, Table 4.

In addition, Chevron is proposing to amend the current monitoring requirements for the dewatering facility, which presently requires spot sampling prior to every discharge at the PWD or TWIP wells (as per Table 6) to monthly sampling. Twelve sampling events have been completed to date, all showing that injected wastewater remains within internal specifications, hence Chevron propose to reduce the sampling frequency to monthly, when operating.

#### 2.3 Part IV of the EP Act

Ministerial Approval for the revised and expanded Gorgon Gas Development was granted on 10 August 2009 subject to conditions outlined in Ministerial Statement 800 (MS 800). MS 800 superseded Ministerial Statement 748 (MS 748) for the initial proposal, providing approval for both the initial, and the revised and expanded Gorgon Gas Development. The approval authorises the construction and operation of three 5 mtpa LNG processing trains, associated infrastructure and a CO2 injection system to inject reservoir CO2 into the Dupuy Formation on Barrow Island. MS 800 contains conditions that need to be considered in the assessment of emissions and discharges from the premises and the imposition of regulatory controls. The relevant Ministerial conditions are detailed in Table 3 below.

Overview	Delegated Officer considerations
Condition 16 Requires the submission and implementation of a Long-term Marine Turtle Management Plan (LTMTMP)	The delegated officer has reviewed the Long-term Marine Turtle Management Plan and noted that the plan specifies design features, management measures and operating controls to minimise lighting, noise and vibration emissions as far as practicable to prevent adverse impact on marine turtles. The plan also specifies an annual monitoring program to detect impacts on turtle populations as well as management triggers and reporting requirements. The delegated officer considers the primary instrument for regulating the impacts on marine turtles from light, noise and vibration emissions is MS 800 and the Long-term Marine Turtle Management Plan. As such, to avoid regulatory duplication, no further assessment or management is required under Part V of the EP Act.

#### 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 Amendment Report are detailed in Table 1 below.

Table 1 also details the proposed control measures the Works Approval Holder has proposed to assist in controlling these emissions, where necessary.

**Table 1: Works Approval Holder controls** 

Emission	Sources	Potential pathways	Proposed controls			
Dust	Screening, crushing, unloading, loading	Air/windborne pathway	No additional proposed controls to			
Noise and vibrations	and storage of crushed material (new location and	patriway	those already conditioned in the works approval.			
Spills or hydrocarbon leaks	different noise controls)	Direct discharge to land and infiltration to groundwater or overland flow				
Potentially contaminated drilling fluids (untreated or partially treated) with high sediment load, hydrocarbons and hazardous chemicals	Ongoing operations of dewatering facility	Containment breach (overtopping of storage tanks, connection leak/rupture and loss of containment of bund)				
Diesel						
Wastewater treatment chemicals						
Sludges						

#### 3.1.2 Receptors

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

Table 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 2: Sensitive environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Managed Lands and Waters	The Gorgon Gas Project is located within the Barrow Island Nature Reserve (BINR), a Class A Nature Reserve. Marine waters surrounding the north, west and south sides of Barrow Island form part of the Barrow Island Marine Management Area (including the Bandicoot Bay Conservation Area ~13 km to the south of the gas treatment plant (GTP)). An exclusion zone exists on the east side of the island adjacent to the GTP for the Barrow Island Port Area. The Barrow Island Marine Park is located on the west side of the island

	(~10 km from the GTP) and incorporates the Western Barrow Island Sanctuary Area.
Threatened Ecological Communities and Priority Ecological Communities	Priority Ecological Communities for Triodia angusta dominated creekline vegetation and Coastal dune native tussock grassland dominated by Whiteochloa airoides are located in smaller areas to the north, south and west of the premises.
Threatened / priority flora	Three species of priority flora are located on Barrow Island west of the premises.
Threatened / priority fauna (terrestrial and marine)	A considerable number of threatened and priority fauna are known to occur on Barrow Island including a number species that are listed under the Biodiversity Conservation Act 2016 (WA) (BC Act) and the Threatened (Vulnerable) Species list of the EPBC Act. Some of these species are known to occur within or adjacent to the premises. Green and flatback turtles (both listed as vulnerable under the BC Act and EPBC Act) nest on Barrow Island. Flatback turtle rookies are recorded near the premises (300 m away).  The new area of crushing and screening is located 900m east of a flat back turtle nesting beach (Inga Beach).
Threatened / priority fauna (subterranean)	Barrow Island is recognized as being of high conservation significance for subterranean fauna communities at state, national and international levels. The subterranean fauna demonstrates high level of endemicity and species diversity and includes one of only two stygal vertebrate species occurring in Australia (Barrow Cave Gudgeon, Mileringa justitia, previously listed as M. veritas). Twelve of the species are listed under the BC Act and the Barrow Cave Gudgeonis listed as vulnerable under the EPBC Act. 13 stygofauna taxa were recorded in monitoring bores at the terminal tanks (approximately 1 km north of the GTP and 2.5 km north of the PWD wells). The karstic limestone layer which is believed to be Giralia Calcarenite is known to contain many cavities and solution tubes that provide habitat for stygofauna. It is located beneath the surficial soil layer at the premises. Beneath this layer is a band of siliceous silty sand which creates a barrier for subterranean fauna as there are no cavities or large pore spaces to allow movement. It is considered unlikely to encounter populations of subterranean fauna beneath this layer.
Groundwater	There is one shallow unconfined freshwater aquifer predominantly within Tertiary limestone on Barrow Island. This freshwater aquifer forms a lens of relatively fresher groundwater floating upon denser, saline ground water at depths between 9 m and 53 m and supports subterranean fauna. The groundwater system is linked to the marine ecosystem (<100 m from the premises boundary)

#### 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Works Approval Holder 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 Works Approval Holder'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 Works Approval Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

The Revised Works Approval W6772/2023/1 that accompanies this Amendment Report authorises construction, commissioning and time-limited operations. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

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Table 3. Risk assessment of potential emissions and discharges from the Premises during construction, commissioning and operation

Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls	Risk rating <sup>1</sup> C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for regulatory controls
Screening, crushing, unloading, loading and storage of crushed material (Additional locations per Figure 1 and altered noise attenuation)	Noise / Vibration	Air/windborne pathway causing disturbance impacts	Fauna within the A class nature reserve	No additional controls proposed	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1	The original works approval conditioned the requirement for noise-reducing foam within the engine canopy, as proposed by Chevron as it was considered to reduce engine noise.  Consistent with the Department's assessment of the submitted compliance documentation, the delegated officer considers Chevron's justification per section 2.2.1 reasonable and notes that the absence of noise-reducing foam is unlikely to significantly increase operational noise levels. All other noise reduction measures have been implemented, and, as stated by Chevron, the primary noise source is the rock-crushing activity itself, with the foam therefore expected to have minimal effect on operational noise levels. Operations are also restricted to daylight hours outside the GTP, further limiting potential impacts to sensitive receptors.  The two proposed additional crushing areas south of the GTP are also not expected to increase risk to receptors, noting that marine turtle impacts are managed under the Long-Term Marine Turtle Management Plan (LTMTMP, Section 2.3) and that operations are consistent with existing crushing activities within the GTP. On this basis, the absence of noise-reducing foam and the inclusion of

Risk Event					Risk rating <sup>1</sup>	Works	Conditions <sup>2</sup> of works approval	Justification for regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls	C = consequence L = likelihood	Approval Holder's controls sufficient?		
								the new crushing areas are not considered to result in an unacceptable risk to sensitive receptors.
								Therefore, Condition 1 has been amended to remove the requirement for noise-reducing foam in the rock crusher, and Figure 2 has been updated to include the two newly proposed crushing areas.
	Spills or hydrocarbon leaks	Direct discharge to land and infiltration to groundwater or overland flow leading to contamination of soil, groundwater, and/or health impacts to flora and fauna.	Flora and fauna within the Class A Nature Reserve Groundwater ~9m below surface		C = Minor L = Rare <b>Low Risk</b>	Y	N/A	The delegated officer considers that the two proposed additional rock crushing locations do not present an increased risk to receptors from spills, leaks, or fugitive dust, and that the existing controls are adequate to manage these risks.
	Fugitive Dust	Air/windborne pathway causing Health impacts	Flora and fauna within the A class nature reserve	No additional controls proposed.	C = Moderate L = Rare Low Risk	Y	N/A	

Risk Event	Risk Event					Works		
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls	C = consequence L = likelihood	Approval Holder's controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for regulatory controls
Ongoing operations of dewatering facility with reduced wastewater sampling frequency.	Potentially contaminated drilling fluids (untreated or partially treated) with high sediment load, hydrocarbons and hazardous chemicals Diesel Wastewater treatment chemicals Sludges	Containment breach (overtopping of storage tanks, connection leak/rupture and loss of containment of bund) leading to contamination of soil, groundwater, and/or health impacts to flora and fauna.	Flora and fauna within the Class A Nature Reserve Groundwater ~ 9m below surface	No additional controls proposed	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 14	The delegated officer considers that extending the time-limited operational period of the dewatering facility from 16 to 39 months does not materially alter its risk profile. The previous amendment, granted on 1 October 2024, extended operations on the basis that the facility is temporary and subject to operational controls addressing risks from single-walled tanks and associated infrastructure. These included monthly inspections of pipelines, secondary containment and conveyance infrastructure, and isolation of all tank connections when unmanned.  The facility remains supported by PVC secondary containment with a 5-year UV rating (Chevron 2024a), which exceeds the proposed operational timeframe. With these controls in place to maintain containment integrity and minimise the likelihood of spills and leaks, the extension is not expected to increase risks to environmental receptors beyond those previously assessed and regulated under the current works approval. Hence, condition 14 has been amended to authorise time limited operations of the liquid waste facility for 39 months.

Risk Event	Risk Event					Works		
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls	C = consequence L = likelihood	Approval Holder's controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for regulatory controls
	Potentially contaminated drilling fluids (untreated or partially treated) with high sediment load, hydrocarbons and hazardous chemicals	Mechanical integrity failure of the disposal wells causing direct discharge to the near surface aquifer	Groundwater within shallow fresh-water aquifer Groundwater dependent ecosystems Subterranean fauna		C = Major L = Rare <b>Medium Risk</b>	Y	Condition 18	Chevron has proposed to amend the monitoring requirements for the dewatering facility, reducing the frequency from spot sampling prior to every discharge at the PWD and TWIP wells to monthly sampling when operating. Chevron has confirmed results of twelve completed sampling events demonstrate that the injected wastewater has consistently remained within internal specifications. The proposed monthly monitoring frequency is also consistent with the requirements of Licence L9102 for deep well injection activities. On this basis, the delegated officer considers the proposed change acceptable and does not materially change the risk of well mechanical integrity issues. Therefore, condition 18 has been amended to reflect this change.

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

Note 2: Proposed works approval holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

#### 4. Consultation

The applicant was provided with the draft documents on 14 November 2025 and a summary of the applicant's comments on the risk assessment and draft conditions received on 20 November 2025 is provided in Appendix 1.

#### 5. Decision

The Delegated Officer has determined to grant a revised works approval to facilitate the proposed changes to the rock crushing operations and the dewatering facility. These changes are justified on the basis that:

- The removal of the noise-reducing foam requirement in the rock crusher engine canopy is unlikely to significantly increase operational noise levels due to the engine noise being insignificant compared to the noise from rock crushing.
- The two additional crushing areas south of the GTP are unlikely to increase risk to receptors from noise, spills, leaks, or fugitive dust, and marine turtle impacts are managed under the LTMTMP.
- Extending the operational period for crushing activities from 27 months to 35 months is
  acceptable on the basis that the crushing and screening plant has demonstrated
  compliance with construction and installation requirements through submission of an
  ECR; the operation of the infrastructure is proposed for a finite period and is therefore
  more appropriately regulated under the works approval; and the works approval
  already includes operational conditions for the rock-crushing infrastructure, with an
  assessed production capacity of 53,000 tonnes per year.
- Extending the operational period of the dewatering facility from 16 to 39 months is not expected to increase risks, as PVC secondary containment with a 5-year UV rating and operational controls remain in place to maintain containment integrity and minimise the likelihood of spills and leaks.
- Reducing monitoring frequency from spot sampling prior to every discharge to monthly
  is consistent with Licence L9102/2017/1 requirements, and available sampling results
  indicate that wastewater quality remains within internal specifications

Additionally, the delegated officer has amended the premises boundary to include the two proposed areas where the crushing and screening plants can operate.

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

## 5.1 Summary of amendments

Table 4 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Works Approval as part of the amendment process.

Table 4: Summary of works approval amendments

Condition no.	Proposed amendments
1	Removal of requirement for the crushing and screening plants to house engines in a steel canopy with noise reducing foam
13	Extension of time limited operations period for the crushing and screening infrastructure to 35 months

14	Extension of time limited operations period for the dewatering facility to 39 months
21	Reduction of frequency of process monitoring during time limited operations at the dewatering facility to monthly
Figure 1	Amended premises map
Figure 2	Amended to include two additional crushing and screening locations.

#### References

- Chevron 2024, Gorgon LNG Project Works Approval (W6772/2023/1) Environmental Compliance Report - Rock Crushing and Screening, Perth, Western Australia. Received 09/02/2024.
- 2. Chevron 2024a, Gorgon LNG Project Works Approval (W6772/2023/1) Environmental Compliance Report Liquid Waste Facility and Associated Generator, Perth, Western Australia. Received 08/10/2024.
- 3. Chevron Australia Pty Ltd (Chevron) 2025, *Application form: Amendment to works approval W6772/2022/1*, Perth, Western Australia
- 4. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- 5. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
- 6. DWER 2020, Guideline: Risk Assessments, Perth, Western Australia.

# Appendix 1: Summary of Works Approval Holder's comments on risk assessment and draft conditions

Summary of Works Approval Holder's comment	Department's response
<ul> <li>A request was made to extend the authorised operational period for the rock crusher from 27 months (ending 9 May 2026) to 35 months (ending 9 January 2027).</li> <li>This extension is sought as the original application considered only the optimisation of the existing CO<sub>2</sub> injection system pressuremanagement drill centres (DCD/DCE).</li> </ul>	<ul> <li>The request to extend the authorised operational period for the rock crusher has been assessed as part of the amendment application.</li> <li>The extension has been supported based on the information provided and has been incorporated into the amended works approval.</li> </ul>
<ul> <li>Following approval of further optimisation works on the CO<sub>2</sub> injection system, an extended operational period is required to support the additional work.</li> </ul>	