Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Works Approval

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

Works Approval Number	W2881/2025/1
Applicant	Chevron Australia Pty Ltd
ACN	086 197 757
File number	APP-0026281 / DER2019/000441~13
Premises	Wheatstone LNG Project Ashburton North Strategic Industrial Area, Part Lot 238 on Deposited Plan 195206 and Part Lots 567 and 569 on Deposited Plan 71345 Certificates of Title Volume LR3118 Folio 396, Volume 2779 Folio 361 and Volume LR3161 Folio 383
Date of report	18 November 2025
Decision	Works approval granted

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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 installation of tie-in infrastructure required for installation of Recuperative Thermal Oxidisers (TOX) on the Nitrogen Rejection Unit (NRU) vent streams of the two LNG trains at the Wheatstone LNG plant. As a result of this assessment, works approval W2881/2025/1 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://www.wa.gov.au/service/building-utilities-and-essential-services/integrated-essential-services/dwer-regulatory-documents.

2.2 Application summary and overview of premises

On 11 October 2024, Chevron Australia Pty Ltd (Chevron; the applicant) submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works relating to the installation of tie-in infrastructure which is required for subsequent installation of Recuperative Thermal Oxidisers (TOX) on the Nitrogen Rejection Unit (NRU) vent streams of the two LNG trains at the Wheatstone LNG Project (Stage 1). Installation of the TOX on the NRU is not within the scope of the application, which will be included within the Stage 2 application.

The Wheatstone LNG Project premises is located approximately 12 km south-west of Onslow and is operated under licence L9225/2020/1 which relates to prescribed premises Category 34: (Oil or gas refining) with an assessed design capacity of 12 million tonnes of LNG per annual period under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations).

Each of the two Wheatstone LNG trains incorporate a Nitrogen Rejection Unit (NRU), designed to remove nitrogen from the processed gas streams. The NRUs vent the removed nitrogen to atmosphere. Included in these vent streams is a small fraction of methane and trace amounts of other gases. Chevron advised that the large volume of vent gas makes the NRUs the largest source of methane emissions from the Wheatstone plant.

The application seeks authorisation to install various tie-in infrastructure in preparation for the subsequent hook-up of TOX on the NRU vent streams of the two LNG trains. Once installed, the TOX will convert methane, which has a higher global warming potential, into carbon dioxide, which has a lower global warming potential, and water through high temperature combustion. When the TOX are later installed they are expected to reduce the Wheatstone Project's greenhouse gas emissions.

2.3 Proposed works

The proposed activity will be undertaken on the two LNG trains at the Wheatstone LNG Project premises to minimise emission of methane that is emitted along with nitrogen from the NRUs.

The proposed works will include foundation works (such as excavation, piling, provision of concrete pads and final grading) and tie-ins to existing infrastructure such as process gas, fuel gas, instrument air and firewater system comprising installation of various pipings, valves, demolition, relocation and re-orientation of firewater monitors and lines, on each LNG train.

Installation of the electrical distribution system tie-ins and control system pre-works will also be undertaken during the turnaround time, but these activities are not anticipated to pose any environmental risks and therefore, omitted from the risk assessment.

Activities which have the potential for leaks/emissions will be undertaken during a turnaround (TAR) period when LNG trains are offline (scheduled in Q1 2026).

The infrastructure and equipment relating to the activities associated with the tie-in installation works which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W2881/2025/1.

2.4 Commissioning

Chevron proposes to commission the constructed infrastructure during LNG train restart following a turnaround. Commissioning will include the following activities:

- Inspecting the process gas tie-in piping for leaks as part of an in-service leak test when operational process fluids are introduced. Leaks are anticipated to be minimal and of same composition that is normally vented. Leak repairs will be conducted, and a test flange (blind with a small nozzle and valve arrangement) will be installed to allow proving of the manual valve isolation to allow future on the run piping installation to occur.
- Either an in-service test or a nitrogen leak test will be conducted for the fuel gas tie-ins. If service tested, an incidental release of <2 m^3 of fuel gas is anticipated while a worst-case release of approximately 380 m^3 (for the two trains) of nitrogen (>95% N_2), along with a small volume of fuel gas (<2 m^3) could occur, if nitrogen leak test is conducted.
- Hydrotesting (leak testing) of the new pipework associated with the firewater system will be undertaken. An incidental/unplanned release of <5m^3 of potentially contaminated water could occur during the in-service leak testing.

2.5 Part IV of the EP Act

The proposal to construct and operate the Wheatstone LNG project and the associated infrastructure was assessed under Part IV of the EP Act and Ministerial Approval for the project was granted through Ministerial Statements (MS) 873. A number of subsequent Ministerial Statements 903, 922,931, 1130 and 1201 have been granted altering the conditions of MS 873.

The Ministerial Statement includes condition 19 relating to greenhouse gas (GHG) emissions management. The proposed works are part of a broader project to install thermal oxidisers on the NRU vent streams to reduce Scope 1 GHG emissions from the Wheatstone project.

Upon review of proposed Stage 1 proposal with MS 873 and its various amendments, Environmental Protection Authority Services (EPAS) confirmed that the proposed activity did not constrain a Part V decision from being made. Therefore, the delegated officer determined that the works approval decision related to the stage 1 activity will be progressed.

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 the tie-in installations works at the premises which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction and commissioning			
Dust	• Earthworks, piling and concrete pouring	Air/windborne pathway causing impacts to health and amenity	None specified
Noise			None specified
Gaseous releases • <2 m^3 of fuel gas; and • ~380 m^3 of N_2	Installation and leak testing of process gas and Fuel gas tie-ins (commissioning)		Tie-in installation works will be undertaken while the LNG trains shut down, isolated and purged of residual gas to minimize gaseous emissions during the works.
• Potentially contaminated soils (~6,800 m^3)	Earthworks	Direct discharge to land causing infiltration and potential lateral migration of impacted water in groundwater	• Excavated soils tested for contaminants. • Contaminated soils to be reused within the disturbance footprint or disposed of to an appropriate Chevron-approved licenced waste disposal facility.
• Potentially contaminated water • Residual firewater and hydrotest water (~50 m^3); • Leak testing water (~<5 m3).	Fire-water tie in installation works and hydrotesting	Direct discharge to land and infiltration to groundwater Overland runoff to marine environment	• Residual firewater, hydrotest water and leak testing water tested for presence of contaminants of concern. ○ Uncontaminated water will be directed to existing First Flush Sump locations 30A and 30I. The wastewater will then ultimately discharge to Pond B via the surface drainage network as authorised under L9225/2019/1. ○ Any potential contaminated water generated will be managed in accordance with existing requirement in the L9225/2019/1 licence, which includes testing to determine the appropriate disposal pathway, including disposal off site.

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.

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 human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from activity / prescribed premises**
Macedon Gas Project (industrial site)	~ 2.5 km southwest
Ashburton River Camp Sites	~ 8km to the south
Environmental receptors	**Distance from prescribed activity**
Marine environment that provides habitat to threatened fauna	The baseline assessment of the marine environment found that 14 threatened marine fauna species including birds, mammals, reptiles and sharks are known to occur nearshore and offshore to the premises. Impacts to marine fauna are managed under requirements of MS 873 (Conservation Significant Marine Fauna Interaction Management Plan). Impacts to significant fauna habitats including mangroves, algal mats, juvenile turtle habitat and saw fish nursery habitat (tidal creeks and lagoon) are managed under requirements of MS 873 (Mangrove, Algal Mat and Tidal Creek Protection Management Plan). Proposed activities are unlikely to pose any risk/impact to the significant fauna habitats.
Pilbara groundwater and surface water areas	The premises is located within the proclaimed areas. Groundwater ranges from 1 to 6 mbgl and is not used for potable or industrial use. Groundwater is brackish to hypersaline near neutral to slightly alkaline, and a sodium–chloride type. The premises is located within the Hooley Creek surface water sub-catchment.
Minor creek – Hooley Creek	The creek is located approximately 1.4 km east of the premises boundary at its closest location and has mangrove and tidal habitats which support marine fauna listed under the EPBC Act and WC Act such as sawfish and juvenile turtles. Impacts to mangrove and tidal habitats are likely to be managed under the requirements of MS 873 (Mangrove, Algal Mat and Tidal Creek Protection Management Plan).

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 3.

Works approval W2881/2025/1 that accompanies this decision report authorizes installation of the tie-in infrastructure for later installation of the Recuperative Thermal Oxidisers on the NRU vent streams of the two LNG trains at the premises only. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

The premises activities will continue to be regulated under the licence L9225/2019/1, including the operation of the infrastructure installed under the works approval, once it is complete.

Table 3: Risk assessment of potential emissions and discharges from the premises during construction and commissioning

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Reasoning
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction and commissioning								
Tie-in installation works	Dust	Air/windborne pathway causing impacts to health and amenity	• Macedon Gas Plant • Camp sites 8km to the south	N/A	C = Slight L = possible **Low Risk**	NA	NA	Based on the nature of the works and the distance to the nearest receptors, the delegated officer considers there is a low risk of dust and noise emissions impacting receptors.
	Noise			N/A	C = Slight L = possible **Low Risk**	NA	NA	
Installation and leak testing of process gas and fuel gas tie-ins (Commissioning)	Gaseous emissions: • <2 m^3 of fuel gas; and • ~380 m^3 of N_2	Air/windborne pathway causing impacts to health and amenity		N/A	C = Slight L = Possible **Low Risk**	Y	Condition 1(i)	The applicant advised that the tie-in installation works will be undertaken during a scheduled turnaround (TAR) period in 2026 where the LNG trains will be shut down, isolated and purged of residual gases to minimize gaseous emissions during the works. Noting that majority of the incidental gaseous release during leak testing will consist of nitrogen that will rapidly disperse into the atmosphere, the delegated officer considers the low volume of fuel gas emission poses a low risk of impacts at the sensitive receptors.
Foundation works for the thermal oxidizer package location (concrete pads) and firewater tie-in	Potentially contaminated soils; (~6,800m^3)	Direct discharge to land causing infiltration and potential lateral migration of impacted water	• Groundwater 1-6 mbgl • Hooley Creek • Marine	Refer section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1(ii) Condition 1(iii) Condition 4(a)	The delegated officer noted that excavated soil and wastewater from the proposed activities are not anticipated to occur in significant volumes and will be restricted within the premises boundary. Chevron advised during the draft stage that soil testing undertaken by Chevron consultant Enpoint at the location of proposed activity indicated PFAS

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Reasoning
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
		in groundwater	environment					contamination in trace volumes (0.0003mg/kg) but determined that it was safe for reuse onsite. This determination was also confirmed by an independent environmental auditor Senversa. The delegated officer has determined to include condition 4(a) requiring Chevron to reuse the excavated soil solely within the disturbance footprint, or store in enclosed containers for disposal offsite to a licenced facility. Together with the obligation to comply with the Environmental Protection (Controlled Waste) Regulations 2004, the delegated officer considered adequate controls are in place to reduce risks and impacts from waste from the premises to a 'medium' risk.
Firewater system tie-in installation and commissioning (hydrotesting)	• residual firewater and hydrotest water (~50 m^3); • wastewater from leak testing (<5 m^3).			Refer section 3.1	C = Slight L = Likely **Medium Risk**			As drainage requirements for concrete pads were not considered by the applicant, the delegated officer included the requirement for concrete pads to be graded to drain towards existing drainage infrastructure as additional controls in the works approval (conditions 1(iii). Licence L9225/2029/1 includes requirements for wastewater management at the premises (condition 1 and 2) which have not been replicated within this works approval. Together with the premises' obligation to comply with the Environmental Protection (Unauthorised Discharges) Regulations 2004, the delegated

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Reasoning
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
								officer considered adequate controls are in place to reduce risks and impacts from wastewater discharge to a 'medium' risk.

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 4 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 14 January 2025	None received	N/A
Local Government Authority (Shire of Ashburton) advised of proposal on 17 January 2025.	The Shire of Ashburton advised the department via email response on 17 January 2025 that the department consult the Western Australian Planning Commission (WAPC) as the proposal falls within Ashburton North Strategic Area (ANSIA) – Improvement Scheme No. 1, with the WAPC under DPLH, being the responsible authority for developments within the ANSIA. The department received a formal response from the shire on 14 February 2025 acknowledging Chevron's commitment to reducing greenhouse gases (GHG) from the Wheatstone Project and expressing no objection to the proposed works as long as best practices are implemented with no detrimental impacts to the community and environment.	A stakeholder letter inviting comments on the proposed activity was sent to DPLH on 24 January 2025, following the shire's advice. The delegated officer noted that shire had no objection to the proposed works approval activity.
Interested party Conservation Council of Western Australia (CCWA) advised of the proposal on 17 January 2025	No comments received	N/A
Interested party Pilbara Ports Authority (PPA) advised of the proposal on 17 January 2025	PPA advised in their response on 3 February 2025 that it had no comments on the proposed amendment.	The delegated officer noted that PPA had no objection to the proposed works being implemented at the premises.
Interested party Western Australian Planning Commission (WAPC/DPLH) advised of the proposal on 24 January 2025	DPLH responded on 12 February 2025 advising DWER that the department had no objection to the grant of the works approval as it noted all works on the premises were completed under the approved ministerial statements and the proposed works were not considered	The delegated officer noted that DPLH had no objection to the grant of the works approval

Consultation method	Comments received	Department response
	to pose a risk to Aboriginal cultural heritage in the area	
Applicant was provided with draft documents on 18 September 2025	Chevron provided their comments on 9 October 2025. Refer Appendix 1 for details	Refer Appendix 1

5. Decision

Based on the assessment in this decision report, the delegated officer has determined that the applicant's proposal to install tie-in infrastructure for hook up of RTO at the Wheatstone LNG Project premises will not pose an unacceptable risk of impact to public health or the environment. This determination is based on:

- the small scale and nature of the Stage 1 activity that involves minor tie-in installations works to existing infrastructure within the premises.
- tie-in installation works will be undertaken while the LNG trains are shut down, isolated and purged of residual gas to minimise gaseous emissions during the works.
- small volumes of potentially contaminated soil and water generated will be tested and managed in accordance with the requirements under licence L9225/2019/1.

The delegated officer determined the applicant's proposed design and operational controls, together with the additional conditions imposed, are sufficient to manage the risks and impacts of emissions and discharges from the proposed activity.

6. Conclusion

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. Chevron Australia Pty Ltd (Chevron) 2024a, *Wheatstone project works approval supporting information,* Perth, Western Australia.
2. Chevron Australia Pty Ltd (Chevron) 2024b, *Application form: Works Approval,* Perth, Western Australia.
3. Chevron Australia Pty Ltd (Chevron) 2025, *Design Details,* Perth, Western Australia (submitted in response to RFI).
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
7. Enpoint 2025, Reuse Assessment Report – Train 1 and Train 2 NRU Thermal Oxidiser Areas, Wheatstone LNG Plant, Perth Western Australia.

Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
Section 2.5 – Decision Report	Chevron requested the deletion of commentary regarding stage 2 activities.	The commentary on stage 2 emissions in section 2.5 has been removed from the Decision Report.
Section 3.1.1 (Table 1) – Decision Report	The department requested Chevron clarify what contaminants were anticipated to be present in the excavated soils and the standards against which contamination will be determined. Chevron responded that a soil assessment for the NRU TOX (Train 1 and 2) scope of work was conducted in August 2025 and the review of the laboratory results by Chevron's third party consultant (Enpoint) determined that the soil materials were suitable for reuse within the Trains 1 and 2 footprint, and/or in the other previously cleared operational areas within the premises. Chevron considered no management controls related to contamination during stockpiling (e.g. such as storage on a lined pad and/or contained within half heights) to be required. These determinations were verified and confirmed by an independent auditor Senversa.	The department requested Chevron to provided copies of the relevant soil assessment reports and the audit report conducted by Enpoint and Senversa to verify the conclusions made, which were submitted to the department on 22 October 2025. Soil assessment report stated that the laboratory analysis indicated the soils to contain low concentrations of PFoA and PFHpA (0.0003mg/kg). Chevron considered that the levels of these contaminants were below the adopted leachate trigger value and did not pose any risk of leaching into the groundwater, which was supported by third party consultant Enpoint and independent auditor Senversa. Based on this advice, Chevron determined that the excavated soil will be reused within the operational area and no management controls were required during stockpiling. While noting the soil materials posed a low risk of contamination, the delegated officer determined to include an additional control to authorise the reuse of the excavated soil within the activity disturbance footprint only, or to be disposed of to an approved facility offsite.
	Chevron responded that any potentially contaminated water generated will be managed in accordance with existing requirements of amended licence L9225/2019/1, which includes testing of water to determine the appropriate disposal pathway. Chevron requested the condition related to wastewater to be amended to: *Any potentially contaminated water generated will be managed in accordance with existing requirements in the L9225/2019/1 licence.*	The delegated officer noted the licence holder's commitment to manage any potentially contaminated wastewater from the proposed activity in accordance with the existing requirements of licence L9225/2019/1, which includes testing of water to determine the appropriate treatment or disposal pathway. As these requirements are already imposed within the premises licence, the delegated officer has determined that there is no need to replicate them within the works approval.
Condition 1 (iii) – Works Approval:	The department requested Chevron clarify if the concrete pads for the thermal oxidisers will be bunded and graded to drain towards the Primary	Noting Chevron's description of the concrete pads that will be draining towards existing drainage infrastructure via the first flush sumps, the delegated officer determined that the pads did

Condition	Summary of applicant's comment	Department's response
Concrete pads for thermal oxidizer package - Must be concreted, bunded and graded to drain towards the Primary Water Treatment System (PWTS) via the first flush sumps (30H and 30K).	Water treatment System (OWTS) via the first flush sumps (30H and 30K). Chevron clarified that the area underneath and adjacent to the proposed works the subject of the works approval application will contain concrete pavement which will be graded to drain towards the existing plant drainage infrastructure and directed into the first flush sumps 30H (Train 1) and 30 K (Train 2). As a result, Chevron considered bunding was not required owing to the presence of concrete pavement around the TOX package, graded pavement design draining towards existing drains and sumps and a lack of localised contamination or leak sources within the TOX package location.	not require bunding. The condition 1(iii) was modified to: *Must be concreted and graded to drain towards the existing stormwater drainage infrastructure.*
Condition 4 (Table 2): *Excavated soil must be stored in 6,600 m3 enclosed and lined containers.*	As described above for management of potentially contaminated soils excavated, Chevron reiterated that a soil assessment was conducted, and the excavated soils are considered to be suitable for reuse.	Noting the justification provided above in relation to excavated soils, condition 4(a) has been modified to relate to the disturbance footprint.
Condition 4 (Table 2): *Residual firewater, hydrotest and leak testing water must be captured in 50m3 enclosed and lined vessel such that leaks do not occur.*	As described above for management of potentially contaminated water generated, Chevron stated that any residual water will be managed in accordance with the existing requirements of the amended licence L9225/2019/1. Water which remains within the firewater piping system will be recirculated as part of the firewater ring main system. Chevron requested that the condition be removed.	As noted above in relation to management of wastewater, the delegated officer noted that managing wastewater in accordance with the existing requirements of licence L9225/2019/1 was appropriate.