

Supporting Documentation

NWA Karratha Waste Handling & Transfer
Station

Licence Renewal Application

Veolia Environmental Services (Australia) Pty Ltd

Licence: L8765/2013/1

Date: February 2026

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1. Introduction

1.1 Background

Veolia Environmental Services (Australia) Pty Ltd (Veolia), the applicant for this licence renewal, is a joint venture partner in North West Alliance (NWA), a partnership formed in 2013 with the Palyku Traditional Owner investment group, Emu Nest. NWA operates the Karratha Waste Handling & Transfer Station located at Lot 2864 Anderson Road, Karratha (the premises), for which this renewal application pertains.

NWA handles various liquid waste streams generated in the Pilbara region, including waste from mining and industrial activities. The primary operations consist of collecting, storing, and then transferring liquid and solid wastes to other facilities for disposal. Neutralisation of approved liquid wastes is also carried out on site, but only in small quantities.

Veolia holds Licence L8765/2013/1 for the Karratha Waste Handling & Transfer Station which operates under the following premise category listed in Table 1.1.

Table 1.1 Prescribed Premises Category

| Prescribed Premise Category | Assessed Design Capacity |
|--|---------------------------------|
| Category 61 Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or discharged onto land | 20,000 tonnes per annual period |
| Category 61A: Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land | 13,000 tonnes per annual period |

This application seeks to renew the existing licence from the current expiration date of 22 September 2026, with some minor changes/addition to controlled waste streams that can be accepted at the premises.

1.2 Purpose and Scope

This document has been prepared to support an application to DWER to renew Licence L8572/2013/1. The application includes administrative updates as follows:

1. Update Premise details (site address) to the correct address of 'Lot 2864, Anderson Road, Karratha Industrial Estate KARRATHA WA 6714 as shown on the Department of Planning, Lands and Heritage database.

Veolia is proposing minor changes to the current operations and processing conditions, along with the inclusion of additional controlled waste codes, as part of this renewal application. The annual quantity limits will remain unchanged.

This document has been prepared to include attachments required by DWER's accompanying application form for Licence Renewal as listed in Table 1.2. The renewal seeks to renew the licence from the current expiration date of 22 September 2026, ensuring continued operation of the facility under the licence conditions.

Table 1.2 Application Attachments

| Application form section | Reference |
|---|--------------------|
| Attachment 1A: Proof of occupier status | Attachment 1A |
| Attachment 1B: ASIC company extract | Attachment 1B |
| Attachment 1C: Authorisation to act as a representative of the occupier | N/A |
| Attachment 2: Premises map/s | Attachment 2 |
| Attachment 3A: Environmental commissioning plan | N/A |
| Attachment 3B: Proposed activities | Section 2 |
| Attachment 3C: Map of area proposed to be cleared (only applicable if clearing is proposed) | N/A |
| Attachment 3D: Additional information for clearing assessment | N/A |
| Attachment 4: Marine surveys (only applicable if marine surveys included in application) | N/A |
| Attachment 5: Other approvals and consultation documentation | N/A |
| Attachment 6A: Emissions and discharges | Section 3 |
| Attachment 6B: Waste acceptance | Section 2 |
| Attachment 7: Siting and location | Section 4 |
| Attachment 8: Additional information submitted | N/A |
| Attachment 9: Category-specific checklist(s) | N/A |
| Attachment 10: Proposed fee calculation | Environment Online |
| Attachment 11: Request for exemption from publication | N/A |

1.3 Premise Location and Details

The locality details of the premises are listed in Table 1.3 below.

Table 1.3 Premise Details

| Aspect | Details |
|---------------------------------|---|
| Premise Name | NWA Karratha Waste Handling and Transfer Station |
| Site Description | Lot 2864 on Deposited Plan 184127, Certificate of Title Volume 1761 Folio 375 |
| Site Address | 2864 Anderson Road, KARRATHA INDUSTRIAL ESTATE WA 6714 |
| Occupier Status | Leaseholder |
| Local Government Authority Area | City of Karratha |

The premise is leased to Veolia by Property Management Australia Pty Ltd as per the lease agreement documents in Attachment 1A.

2. Proposed Activities (Attachment 3B)

The proposal is to continue current operations as authorised under the existing licence, with addition of a small number controlled waste codes under premise category 61.

2.1. Infrastructure and Equipment

No changes to the existing and approved infrastructure or equipment are proposed as part of this renewal. On 19 February 2025, DWER granted a licence amendment to facilitate construction and operation of an oily water processing facility. When completed, the infrastructure at the site will include:

Existing infrastructure and equipment at the premises include:

- Enclosed Shed (concrete hardstand)
- Concrete bunded storage area
- 2 x Below ground Receptacles (to be relined with steel plates)
- 6 x 25kL Iso-tainers (to be relocated to oily water treatment plant for oily water storage)
- 4 x 50kL steel tank (to be relocated to oily water treatment plant for oily water storage)
- 1 x 60kL steel tank (to be relocated to oily water treatment plant for oil storage)

New infrastructure and equipment as part of the latest licence amendment will include:

- An oil separator in Pit 1.
- 1 x 30 kL plastic
- Concrete bunding to tank farm – on top of existing concrete hump bund.
- Bunded concrete spill pad and sump.
- 2 x high pressure water supply hose reel for washdown.
- Associated piping, fittings, pumps and power supply.

2.2. Waste Throughputs

Table 2.2 outlines the current and proposed premise categories and their respective annual quantities. This renewal application does not seek any changes to the existing premise categories or their annual throughput limits.

Table 2.2 – Waste Types and Annual Quantities

| Category/Type | Quantity |
|--|---------------------------------|
| Category 61: Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated. | 20,000 tonnes per annual period |
| Category 61A: Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land. | 13,000 tonnes per annual period |

2.3. Waste Acceptance and Processing (Attachment 6B)

Veolia proposes to continue accepting all currently approved waste types in the current licence. However, the current licence contains some conflicting and inconsistent information regarding waste acceptance between Table 1 (Controlled Waste Types) and Schedule 2, Table 7 (Accepted Waste Types) which creates operational uncertainty and potential compliance issues.

Some issues identified as part of the licence review include:

- Incorrect waste code in Table 1: For example, Nickel compounds are listed as D221, when D221 is the waste code for used lead acid batteries. The correct code for nickel compounds is D210.
- Inconsistencies between tables: Some waste streams appear in Schedule 2, Table 7 but are not adequately covered by controlled waste codes in Table 1. For example:
 - Paint waste solid and paints and thinners are listed in Table 7, but Table 1 only includes F120 (solvent based) under liquids, which does not adequately cover solid paint wastes or water-based paint wastes that require waste code F100
 - Batteries are listed in Table 7 (lead acid, nickel cadmium, nickel metal hydride, lithium, alkaline) but corresponding battery codes (D151, D211, D221) are not all reflected in Table 1
 - Contaminated sand is listed as a waste type in Table 7 which could be considered as N120 (Soils contaminated with a controlled waste)

This renewal application seeks to address these discrepancies by consolidating licence Tables 1 and 7 into a single waste acceptance and processing table, as proposed in Table 2.3 below with the inclusion of the following controlled waste codes:

- D151 (Used nickel cadmium batteries)
- D211 (Used nickel metal hydride batteries)
- F100 (Aqueous-based wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers and varnish)
- N120 (Soils contaminated with a controlled waste)

Additionally, Veolia is seeking the addition of several controlled waste codes (also listed in Table 2.3) to the licence to meet anticipated future demand from the mining and oil & gas sectors operating in the Pilbara region. While these waste streams represent relatively low volumes individually, they reflect the diverse range of specialty chemicals and industrial materials used in these sectors that require appropriate disposal pathways. The proposed additions include:

- E100 (Waste containing peroxides excluding hydrogen peroxide)
- F110 (Aqueous-based wastes from the production, formulation and use of resins, latex, plasticisers, glues and adhesives)
- F130 (Solvent based wastes from the production, formulation and use of resins, latex, plasticisers, glues and adhesives)
- M220 (Isocyanate compounds)
- M230 (Triethylamine catalysts)
- T100 (Waste chemical substances arising from research and development or teaching activities)

Acceptance of these waste types provides essential waste management services to regional industries while maintaining low individual waste stream volumes that can be safely managed within the facility's existing infrastructure and operational controls. All waste acceptance and handling procedures will continue to be conducted in accordance with the existing licence conditions and operational requirements, with the exception of cardboard baling. The baler has been removed from the shed and no baling of paper/cardboard is undertaken on the premises.

Table 2.3: Waste acceptance and processing limits and controls

| Waste type | Waste Code | Quantity Limit | Specification | Process | Process Controls | Infrastructure |
|---|------------|---|---|--|--|---|
| Inert Waste Type 1 | N/A | Combined total of no more than 13,000 tonnes per annual period for all solid wastes accepted. | N/A | Receipt, handling, sorting, consolidation, and storage prior to disposal | N/A | N/A |
| Inert Waste Type 2 | N/A | | N/A | Receipt, handling, sorting, consolidation, and storage prior to disposal. | Mechanical sorting of waste must not take place. | Baling is no longer conducted on the premises. |
| Putrescible Waste | N/A | | N/A | | | |
| Contaminated solid waste | N/A | | Radioactive waste must not be accepted. | N/A | Waste must be stored in a manner that prevents incompatible wastes mixing. | N/A |
| Acids | | | | | | |
| Acidic solutions or acids in solid form | B100 | Combined premises total of 20,000 tonnes per annum of all liquid wastes accepted, and combined premises total of 13,000 tonnes per annual period for all solid wastes accepted. | N/A | Receipt, handling, consolidation and neutralisation or temporary storage prior to off-site removal | <p>All wastes received for neutralisation must be assessed by a suitably qualified chemist to ensure waste is stored and processed in a manner that prevents incompatible wastes mixing.</p> <p>Waste must be neutralised with a reagent that does not produce gaseous emissions.</p> <p>Neutralisation must not be conducted on pickle liquor, nitric acid, nitrosylsulfuric acid or other NOx-producing acids.</p> | <p>B100 waste is to be stored in impervious containers within self-bunded storage cabinets as marked on the site plan.</p> <p>Reagents are to be stored with 'C100 Waste' as marked on the site plan.</p> <p>Neutralisation must be conducted in suitably designed chemically compatible tanks or vessels within a bunded, impermeable hardstand area.</p> <p>Neutralisation may be conducted either within the</p> |

| Waste type | Waste Code | Quantity Limit | Specification | Process | Process Controls | Infrastructure |
|---|------------|---|---|--|---|---|
| | | | | | Verification and testing requirements are completed to ensure that treated waste leaving the premises is suitable for its final disposal location | on-site shed with roller doors open at opposing ends or in an open outdoor bunded hardstand area, provided that containment, ventilation and spill prevention are maintained at all times |
| Bases | | | | | | |
| Basic (alkaline) solutions or bases (alkalis) in solid form | C100 | Combined premises total of 20,000 tonnes per annum of all liquid wastes accepted, and combined premises total of 13,000 tonnes per annual period for all solid wastes accepted. | N/A | Receipt, handling, consolidation and temporary storage prior to off-site removal | Waste must be stored in a manner that prevents incompatible wastes mixing | C100 waste is to be stored in impervious containers within self-bunded storage cabinets as marked on the site plan |
| Used Batteries | | | | | | |
| Used nickel cadmium batteries | D151 | Maximum of 20 tonnes per annual period (within combined premises total of 13,000 tonnes per annum for all solid wastes) | Used batteries must be intact and free from significant leakage. | Receipt, handling, consolidation and temporary storage prior to off-site removal | Waste must be stored and processed in a manner that prevents incompatible wastes mixing | Stored on a hardstand area that prevents contact with rainfall and stormwater |
| Used nickel metal hydride batteries | D211 | | | | | |
| Used lead batteries | D221 | Maximum of 130 tonnes per annual period (within combined premises total of 13,000 tonnes per annum for all solid wastes) | Damaged or leaking batteries must be isolated upon receipt and placed in compatible containment | | | |
| Used lithium batteries | N/A | Maximum of 2 tonnes per annual period (within combined premises total of 13,000 tonnes per annum for all solid wastes) | | | | |

| Waste type | Waste Code | Quantity Limit | Specification | Process | Process Controls | Infrastructure |
|---|------------|---|---|--|---|--|
| Used alkaline batteries | N/A | Maximum of 3 tonnes per annual period (within combined premises total of 13,000 tonnes per annum for all solid wastes) | | | | |
| Inorganic Chemicals | | | | | | |
| Mercury and mercury compounds | D120 | Combined premises total of 20,000 tonnes per annum of all liquid wastes accepted, and combined premises total of 13,000 tonnes per annual period for all solid wastes accepted. | Mercury waste must only be accepted onto the Premises as packaged waste | Receipt, handling, consolidation and temporary storage prior to off-site removal | Waste must be stored and processed in a manner that prevents incompatible wastes mixing | Stored in containers or tanks within self-bunded storage cabinets or within bunded hardstand areas |
| Nickel compounds | D210 | | | | | |
| Lead and lead compounds | D220 | | | | | |
| Zinc compounds | D230 | | | | | |
| Non toxic salts | D300 | | | | | |
| Reactive Chemicals | | | | | | |
| Waste containing peroxides excluding hydrogen peroxide | E100 | Maximum of 2 tonnes per annual period (within combined premises total of 13,000 tonnes per annum for all solid wastes) | Packaged Waste | Receipt, handling, consolidation and temporary storage prior to off-site removal | Waste must be stored and processed in a manner that prevents incompatible wastes mixing | Stored in containers or tanks within self-bunded storage cabinets or within bunded hardstand areas |
| Waste of an explosive nature not subject to other legislation | E120 | Maximum of 2 tonnes per annual period (within combined premises total of 13,000 tonnes per annum for all solid wastes) | | | | Stored within a cool, well-ventilated area away from heat, ignition sources and direct sunlight |
| Paints, Resins, Inks and Organic Sludge | | | | | | |
| Aqueous-based wastes from production, formulation & use of inks, dyes, pigments, paints, lacquers and varnish | F100 | Combined premises total of 20,000 tonnes per annum of all liquid wastes accepted, and combined premises total of 13,000 | Packaged Waste | Receipt, handling, consolidation and temporary | Waste must be stored and processed in a manner that prevents incompatible wastes mixing | Stored in containers or tanks within self-bunded storage cabinets or within bunded hardstand areas |

| Waste type | Waste Code | Quantity Limit | Specification | Process | Process Controls | Infrastructure |
|---|------------|---|--------------------------|--|--|--|
| Aqueous-based wastes from production, formulation & use of resins, latex, plasticisers, glues and adhesives | F110 | tonnes per annual period for all solid wastes accepted | | storage prior to off-site removal | | |
| Solvent based-wastes from production, formulation & use of inks, dyes, pigments, paints, lacquers and varnish | F120 | | | | | |
| Solvent based wastes from production, formulation & use of resins, latex, plasticisers, glues and adhesives | F130 | | | | | |
| Organic Solvents | | | | | | |
| Ethers & Highly Flammable Hydrocarbons | G100 | Combined premises total of 20,000 tonnes per annum of all liquid wastes accepted, and combined premises total of 13,000 tonnes per annual period for all solid wastes accepted. | Packaged waste | Receipt, handling, consolidation and temporary storage prior to off-site removal | Waste is stored and processed in a manner that prevents incompatible wastes mixing | Stored in containers or tanks within self-bunded storage cabinets or within bunded hardstand areas |
| Non-halogenated organic solvents | G110 | | | | | |
| Waste from production, use and formulation of organic solvents not otherwise specified | G160 | | | | | |
| Oils | | | | | | |
| Waste mineral oils unfit for their intended purpose | J100 | Combined premises total of 20,000 tonnes per annum of all liquid wastes accepted, and combined premises total of 13,000 tonnes per annual period for all solid wastes accepted. | Packaged and bulk wastes | Receipt, handling, consolidation, physical treatment and temporary storage prior to off-site removal | Waste is stored and processed in a manner that prevents incompatible wastes mixing The Licence Holder may only store and process Oil interceptor wastes and Oil sludge waste in Pits 1, 2 and | Stored in containers or tanks within self-bunded storage cabinets or within bunded hardstand areas |
| Waste oil and water mixtures or emulsions, and hydrocarbon and water mixtures or emulsions | J120 | | | | | |
| Oil interceptor wastes | J130 | | | | | |
| Oil sludge | J180 | | | | | |

| Waste type | Waste Code | Quantity Limit | Specification | Process | Process Controls | Infrastructure |
|---|------------|--|--|--|--|---|
| | | | | | the tank farm when DWER have confirmed that all construction and reporting requirements have been met. | |
| Used Oil Filters (undrained) | J170 | | | | N/A | Filters stored in fully sealed dedicated hydrocarbon bins on bunded hardstand |
| Putrescible and Organic Wastes | | | | | | |
| Waste from grease traps | K110 | Maximum of 100 tonnes per annual period (within combined premises total of 13,000 tonnes per annum for all solid wastes) | Packaged and bulk wastes | Receipt, consolidation and temporary storage prior to off-site removal | Waste is stored and processed in a manner that prevents incompatible wastes mixing | Stored in sealed tanks or containers on a bunded impervious hardstand |
| Food and beverage processing wastes | K200 | | | | | |
| Septage wastes | K210 | | | | | |
| Used cooking oil | N/A | Maximum of 30 tonnes per annual period (within combined premises total of 20,000 tonnes per annum for all liquid wastes) | Vegetable oils only | Receipt, consolidation and temporary storage prior to off-site removal | Waste is stored and processed in a manner that prevents incompatible wastes mixing | Stored in sealed tanks or containers on a bunded impervious hardstand |
| Industrial Wash Water | | | | | | |
| Car and truck wash waters | L100 | Combined premises total of 20,000 tonnes per annum of all liquid wastes accepted | N/A | Receipt, handling, consolidation and temporary storage prior to off-site removal | Waste is stored and processed in a manner that prevents incompatible wastes mixing | Stored in sealed tanks or containers on a bunded impervious hardstand |
| Industrial wash waters contaminated with a controlled waste | L150 | | L150 waste limited to wash waters contaminated with controlled | | | |

| Waste type | Waste Code | Quantity Limit | Specification | Process | Process Controls | Infrastructure |
|---|------------|---|--|--|--|--|
| | | | wastes listed in this table. | | | |
| Organic Chemicals | | | | | | |
| Organic solvents excluding halogenated solvents | M130 | Combined premises total of 20,000 tonnes per annum of all liquid wastes accepted, and combined premises total of 13,000 tonnes per annual period for all solid wastes accepted. | N/A | Receipt, handling, consolidation and temporary storage prior to off-site removal | Waste is stored and processed in a manner that prevents incompatible wastes mixing | Stored in containers or tanks within self-bunded storage cabinets or within bunded hardstand areas |
| Isocyanate compounds | M220 | | | | | |
| Triethylamine catalysts | M230 | | | | | |
| Surfactants and detergents | M250 | | | | | |
| PFAS contaminated materials, including waste PFAS containing products and contaminated containers | M270 | | | Receipt, temporary storage prior to off-site removal | No treatment, dilution or repackaging of PFAS containing waste shall be undertaken at the premises | |
| Soils and Sludge | | | | | | |
| Containers or drums contaminated with residues of a controlled waste | N100 | Combined premises total 13,000 tonnes per annual period for all solid wastes accepted. | N/A | Receipt, handling, consolidation and temporary storage prior to off-site removal | Waste is stored and processed in a manner that prevents incompatible wastes mixing | Stored in impervious containers or tanks within a bunded hardstand area |
| Contaminated Soil | N120 | | | | | |
| Encapsulated, chemically fixed, solidified or polymerised controlled wastes | N160 | | | | | |
| Industrial waste treatment plant residues | N205 | | | | | |
| Clinical and Pharmaceutical (Special Waste Type 2) | | | | | | |
| Clinical and related wastes | R100 | Maximum of 5 tonnes per annual period (within combined premises total of | Waste must not include cytotoxic waste | Receipt and temporary storage prior to off-site removal | Waste containers must not be opened and waste may not be consolidated on site | Stored on-site in lockable yellow 120L or 240L mobile garbage bins on a hardstand area |
| Waste pharmaceuticals, drugs and medicines | R120 | | | | | |

| Waste type | Waste Code | Quantity Limit | Specification | Process | Process Controls | Infrastructure |
|--|------------|---|---|--|--|---|
| Waste from production or preparation of pharmaceutical products | R140 | 13,000 tonnes per annum for all solid wastes) | All clinical and pharmaceutical waste is received in lockable sealed bins | | | |
| Miscellaneous | | | | | | |
| Waste chemical substances arising from research and development or teaching activities | T100 | Maximum of 1 tonne per annual period (within combined premises total of 13,000 tonnes per annum for all solid wastes) | N/A | Receipt, handling, consolidation and temporary storage prior to off-site removal | Waste is stored and processed in a manner that prevents incompatible wastes mixing | Stored in suitably compatible containers within self-bunded storage cabinets or within bunded hardstand areas |

3. Emissions, Discharges and Waste (Attachment 6A and 6B)

The emissions and discharge risk assessment framework has been taken from the DWER Guidance Statement – Risk Assessments – February 2017. The facility will continue to operate in accordance with the existing licence conditions and no changes to emission types or management practices are proposed as part of this renewal application.

| Likelihood | Consequence | | | | |
|----------------|-------------|--------|----------|---------|---------|
| | Slight | Minor | Moderate | Major | Severe |
| Almost certain | Medium | High | High | Extreme | Extreme |
| Likely | Medium | Medium | High | High | Extreme |
| Possible | Low | Medium | Medium | High | Extreme |
| Unlikely | Low | Medium | Medium | Medium | High |
| Rare | Low | Low | Medium | Medium | High |

The outcome of the risk assessment indicates varying levels of risk for different emission types, ranging from low to medium. The potential emissions identified in Table 9.1 (Part 9) of the renewal application form are described in Table 3.1 below.

Table 3.1 Emissions & Controls

| Potential emissions | Source | Potential receptors and pathways | Controls | Risk Rating C = Consequence L = Likelihood |
|--|--|--|--|--|
| Gaseous and Particulate Emissions | | | | |
| Fire / Smoke | Smoke and firefighting wash waters from spontaneous fire of waste in storage areas (e.g. used batteries) | Air/windborne pathway to neighbouring industrial premises and Karratha Cart Club Overland runoff or percolation of wash waters into soil and groundwater. | Segregation of incompatible waste types Annual sub-limits on acceptance of batteries Waste stored in a bunded area. Existing site firefighting infrastructure and capability Fire brigade in close proximity (10 minutes away) Baling of cardboard/paper no longer occurs at the premises | C = Slight L = Unlikely Low Risk |

| Potential emissions | Source | Potential receptors and pathways | Controls | Risk Rating C = Consequence L = Likelihood |
|--|--|---|---|--|
| Fugitive emissions to air of waste treatment byproducts | Chemical neutralisation (pH correction) of acidic wastes through the addition of a basic reagent | Air/windborne pathway to neighbouring industrial premises | <p>Neutralisation process only carried out by a suitably qualified chemist in small quantities in adherence to the Work Instruction including:</p> <ul style="list-style-type: none"> • Treatment processes developed, trialled, and supervised • Inspecting the reaction vessel for defects • Decanting waste to a suitably compatible vessel on bunded hardstand area • Reagent added slowly until tested pH is stable between 6 and 8 • Temperature and pH are monitored during treatment reactions • Neutralisation is not conducted on any NOx-producing acids as specified in Table 1 | <p>C = Minor L = Rare Low Risk</p> |
| Waste and leachate (e.g. emissions through seepage, leaks and spills of waste from storage, process and handling areas, etc.) | | | | |
| Seepage and Spillage | Acceptance, handling, consolidation, treatment, and storage of liquid and solid wastes | <p>Seepage and spillage to soils and groundwater</p> <p>Groundwater 5-10m bgl</p> | <p>Waste stored in suitably compatible impervious containers or tanks within self-bunded storage cabinets or within bunded hardstand areas to contain leaks and spills.</p> <p>Above ground storage tanks – leakage easily observed</p> <p>Below ground steel lined pits to be relined as per current licence conditions and maintained empty when no oily water processing occurs</p> | <p>C = Slight L = Unlikely Low Risk</p> |
| Odour (e.g. from wastes accepted at putrescible landfills, storage or processing of waste or other odorous materials, etc.) | | | | |
| Odour | Acceptance, handling and storage of putrescible wastes, organic chemicals, oils and solvents. | Air/windborne pathway to neighbouring industrial premises and Karratha Cart Club | <p>Storage in enclosed containers or tanks temporarily prior to transfer off-site</p> <p>Low quantities of odorous wastes accepted</p> <p>Existing Licence Condition 15 requiring odour does not</p> | <p>C = Slight L = Unlikely Low Risk</p> |

| Potential emissions | Source | Potential receptors and pathways | Controls | Risk Rating C = Consequence L = Likelihood |
|---|--|---|---|--|
| | | | unreasonably interfere with amenity (nil complaints received to date) | |
| Contaminated or Potentially Contaminated Stormwater | Stormwater contact with waste storage and handling areas, spills, or contaminated surfaces during rainfall events. | Minor non-perennial watercourse 195m east of the premises Boundary via direct discharge, runoff or infiltration | Waste storage in enclosed containers or tanks either in bunded areas or fully enclosed self-bunded storage containers All waste handling and storage on impervious hardstand surfaces Spill kits and response procedures in place Existing Licence Conditions 2, 4 and 5 requiring maintenance of pollution control equipment, immediate spill recovery, and prevention/treatment of contaminated stormwater | C = Moderate L = Rare Medium Risk |

The risk assessment indicates that the implemented controls and natural buffers effectively manage the potential risks associated with solid and liquid waste handling. The continuation of existing operational practices, as per the current licence conditions, is expected to effectively manage all identified risks.

4. Environmental Siting

The Premises is situated at the corner of Pyramid and Anderson Roads within the Karratha Industrial Estate, zoned 'Industry' under the City of Karratha Town Planning Scheme. The site is surrounded by industrial operations to the north, west and south. To the east, across Anderson Road, is Unallocated Crown Land containing a dry creek line, zoned 'Conservation, Recreation and Natural Landscapes'.

4.1. Sensitive Receptors

Table 4.1 identifies the sensitive receptors in proximity to the Prescribed Premises that are relevant to this licence renewal application.

Table 4.1: Receptors and distance from activity boundary

| Sensitive Land Uses | Distance from Prescribed Activity |
|--|--|
| Residential Premises - 1968 Anderson Road, Karratha Industrial Estate. | 140m south of the Premises boundary |
| Karratha Kart Club - Anderson Road, Karratha Industrial Estate | 240m south east of the Premises boundary |
| Kingway Motel, 1069 King Way, Karratha Industrial Estate | 1.3 km northwest of Premises boundary |
| Private extraction well (GWL202093 - Norwest Sand and Gravel Pty Ltd, drawing from Pilbara fractured rock aquifer) | 1.3 km south west of Premises boundary |

4.2. Environmentally Sensitive Receptors

Table 4.2 lists the nearby environmentally sensitive receptors as identified in Table 10.2 of the application form. This table reflects the environmentally sensitive receptors in the vicinity of the premises, as verified through the DWER Environment Online Interactive Mapping tool (Department of Water, Environment and Regulation, 2026) and previous DWER decision reports.

Table 4.2: Nearby environmentally sensitive receptors and aspects

| Type / classification | Description | Distance + direction to premises boundary | Proposed controls to prevent or mitigate adverse impacts (if applicable) |
|-----------------------------------|--|---|--|
| Environmentally Sensitive Areas | N/A | N/A | N/A |
| Threatened Ecological Communities | Priority 1 Ecological Community - Roebourne Plains gilgai grasslands | Approximately 900 m west of the Premises Boundary | Consistent with DWER's previous assessment, the PEC has not been considered further as a receptor in this risk assessment due to the distance to the physical location of the PEC. |

| Type / classification | Description | Distance + direction to premises boundary | Proposed controls to prevent or mitigate adverse impacts (if applicable) |
|--|---|--|---|
| | Priority 3 Ecological Community - Horseflat Land System | Approximately 1.5 km west of the Premises boundary | Consistent with DWER's previous assessment, the PEC has not been considered further as a receptor in this risk assessment due to the distance to the physical location of the PEC. |
| Threatened and/or priority fauna | No threatened or priority fauna within 2km | >2km | N/A |
| Threatened and/or priority flora | No threatened or priority flora within 2km | >2km | N/A |
| Aboriginal and other heritage sites | Artefacts / scatter sites within 2km radius | Within 1-2km radius | No controls are applicable and no impact to the site is anticipated given the distance from operational activities. |
| Public drinking water source areas | N/A | N/A | N/A |
| Rivers, lakes, oceans, and other bodies of surface water, etc. | Minor non-perennial watercourse Tributary of Gwen Creek | Approximately 195 m east of the Premises boundary | Existing licence conditions require all practical measures to prevent contaminated stormwater run-off. All spills and run-off from waste storage areas are contained to the site. |
| Acid sulfate soils | None identified | N/A | N/A |
| Groundwater | Pilbara fractured rock aquifer (unconfined) | The water table in the Pilbara fractured rock aquifer is generally within 5 – 10 m of the surface. Regional groundwater flow is inferred to be north to northeast towards Nickol Bay. | Existing licence conditions require all liquid wastes to be stored within bunded areas to prevent groundwater contamination. Stormwater management controls are in place to prevent infiltration of contaminated water into groundwater. |

4.3. Climate and Geology

Based on the Bureau of Meteorology data, Karratha receives an average annual rainfall of approximately 300mm. Rainfall is highly seasonal, with the majority occurring during the summer months of January to March, coinciding with tropical cyclone and monsoonal activity. The winter and spring months (August to November) are notably dry, with minimal rainfall averaging less than 2mm per month. (Bureau of Meteorology, 2026)

Table 4.3 Rainfall Summary Statistics - Karratha Aero (1972-2025)

| Statistic | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|-----------|-------|-------|-------|-------|-------|-------|------|------|------|-----|------|-------|--------------|
| Mean | 51.6 | 73.6 | 46.1 | 18.1 | 30.4 | 35.5 | 13.4 | 5.0 | 1.4 | 0.4 | 1.2 | 13.6 | 297.8 |
| Lowest | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 53.0 |
| Median | 19.4 | 40.5 | 31.4 | 6.4 | 3.4 | 14.4 | 2.6 | 0.2 | 0.0 | 0.0 | 0.0 | 0.6 | 261.6 |
| Highest | 393.8 | 348.8 | 291.2 | 120.7 | 215.4 | 271.6 | 76.2 | 47.6 | 20.8 | 6.0 | 38.0 | 112.8 | 855.4 |

The Karratha area is situated on a coastal plain with thin quaternary sediments comprising alluvium, colluvium, and coastal limestone, overlying ancient Archaean volcanic rocks of the Pilbara Craton. Soils in the region are predominantly red-brown silty sands, gravels, and alkaline clay soils, which are characteristically highly alkaline (pH > 9.0) and saline.

References

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