



Application for Works Approval

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

Works Approval Number W6713/2022/1

Applicant Onslow Infracore Pty Ltd

ACN 612 668 201

File number DER2022/000334

Premises Ashburton Infrastructure Project – Port Landside and Nearshore
Talandji, WA 6710
Legal description
Part of Lot 555 on Deposited Plan 402556
Part of Lot 569 on Deposited Plan 71345
Part of Lot 570 on Deposited Plan 71345
As defined by the premises map attached to the issued works approval.

Date of report 11 July 2023

Decision Works approval granted

A/MANAGER, RESOURCE INDUSTRIES

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

Table of Contents

1. Decision summary	1
2. Scope of assessment	1
2.1 Regulatory framework	1
2.2 Application summary and overview of premises	1
2.3 EPBC Act	2
2.4 Part IV of the EP Act	2
2.4.1 Ministerial Statement No. 1204	2
2.4.2 Ministerial Statement No. 1131	2
2.5 Risk assessment	3
2.6 Source-pathways and receptors	3
2.6.1 Emissions and controls	3
2.6.2 Receptors	11
2.7 Risk ratings	16
3. Consultation	24
4. Conclusion	25
References	25
Appendix 1: Summary of applicant’s comments on risk assessment and draft conditions	26
Appendix 2: Application validation summary	31
Table 1: Proposed applicant controls	3
Table 2: Sensitive human and environmental receptors and distance from premises	11
Table 3: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and operation	17
Table 4: Consultation	24
Figure 1: Distance to sensitive receptors	14
Figure 2: Distance to sensitive infrastructure	14
Figure 3: Port Distance to sensitive marine receptors (note OGV area not part of this assessment)	15

1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W6713/2022/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary and overview of premises

On 19 July 2022, Onslow Infracore Pty Ltd (the applicant), a subsidiary of Mineral Resources Limited, 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 for the operation of an iron ore handling facility located at the Port of Ashburton (the Port) located within Ashburton North Strategic Industrial Area (ANSIA) within the Eastern Port Precinct (the premises).

The Port is a multi-user port approximately 10 km west of the Onslow townsite. The premises is a key component of the larger Ashburton Infrastructure Project (AIP) which also includes the construction of a 125 km haul road from the Buckland mine (Bungaroo South) to the Port, associated gas pipeline and five offshore anchorage areas for transshipment of the ore to Ocean Going Vessels (OGVs) (subject to a separate approval).

The proposed facility has a project life of 30 to 40 years and will be capable of handling up to 40 million tonnes per annum (Mtpa) of iron ore at no more than 110,000 tonnes per day, transported to the Port by road train from a number of different satellite mining operations in the West Pilbara, namely from the Buckland Project (Bungaroo South).

Key infrastructure at the premises includes a road train unloading shed, storage and reclamation sheds, out loading facility, wharf and jetty ship loader. The facility will include fully enclosed product storage, with a storage capacity of up to 300,000 tonnes of ore product. The iron ore product will be loaded into transshipment vessels (TSVs) which will transport the product via tugboats to anchorage points to be loaded onto Ocean Going Vessels (OGVs) on a 24-hours, seven days a week basis.

A proposed seawater desalination plant (seawater intake of up to 2 gigalitres (GL) per annum (GL/a) and up to 1.2 GL/a brine discharge); proposed non-commercial gas fired Power Station (14 megawatt (MW)); proposed wastewater treatment plant (15 kilolitres (kL) per day system); and proposed fuel storage facility (660 kL) will also be constructed, but are not of sufficient scale to trigger a category under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations).

The applicant modelled emissions from 2 MW Cummins gas-fired engines. The applicant has not provided the technical specifications as the project's final detailed design may change in future, but has confirmed the use of a similar specification and the same emissions controls as described in the application. In the absence of detailed specifications, the applicant has provided a literature review of air quality modelling assessments that included natural gas fired engines similar to those discussed in the applicant's application. While below the prescribed threshold

for category 52 (power generation), section 53 of the EP Act is applicable and the stack emission points will be authorised emission points at the premises.

The premises relates to category 58 (Bulk material loading or unloading) and assessed production capacity under Schedule 1 of EP Regulations which are defined in works approval W6713/2022/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6713/2022/1.

2.3 EPBC Act

Onslow Iron Pty Ltd referred the AIP proposal to the Department of Climate Change, Energy, the Environment and Water (formerly the Department of Agriculture, Water and the Environment) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 5 October 2021, due to the proposals potential impact on listed threatened species and listed migratory species.

The proposed action to construct a 150 km fully sealed private haul road from the Buckland mine (Bungaroo South), including the development of land and marine bulk loading facilities to service iron ore mining and export developments in the West Pilbara region, 150 km east of Onslow in Western Australia, was determined to be a controlled action on 16 November 2021 (EPBC 2021/9064), pursuant to section 75 of the EPBC Act. The controlling provisions are sections 18 & 18A (listed threatened species and communities) and sections 20 & 20A (listed migratory species).

2.4 Part IV of the EP Act

2.4.1 Ministerial Statement No. 1204

The AIP proposal was referred by Onslow Infracore Pty Ltd to the Environmental Protection Authority (EPA) under section 38 of the EP Act and assessed (Assessment No: 2320) at the level of Public Environment Report (PER), with EPA report number 1733 being published on 16 February 2022. On 3 July 2023 Ministerial Statement (MS) 1204 was published.

MS 1204 authorises disturbance of four spatially separate development envelope areas being the Haul Road Development Envelope (16,209 ha), Landside Development Envelope (118 ha), Nearshore Development Envelope (11 ha) and Offshore Development Envelope (4,483 ha). The works occurring under this works approval are occurring within the landside development envelope, which consists of the Eastern Port Precinct and a section of the haul road.

MS 1204 includes conditions to minimise impacts on the marine environment and fauna, including dredging and spoil disposal requirements for the jetty and wharf infrastructure at the Port and limits for hypersaline brine discharge from the desalination plant.

Notably section C1 of MS 1204 requires that port operational activities in the landside and near shore development envelopes and any ground disturbing activities that may result in impact to Aboriginal cultural heritage cannot commence until the CEO has confirmed in writing that the relevant Environmental Management Plans are acceptable.

2.4.2 Ministerial Statement No. 1131

MS 1131 (EPA Report 1653) was published on 23 April 2020 and the Pilbara Port Authority (PPA) is the nominated proponent responsible for administering MS 1131 which relates to the on-going management of onshore, nearshore, and offshore facilities located within the Port. MS 1131 includes the following elements:

- Shipping Channel;
- Materials Offloading Facility (also known as Ashburton Cargo Wharf);

- Access Road; and
- Eastern Port Precinct (new element added in February 2022 via s45c)

MS 1131 was not originally intended to operate a significant iron ore handling facility. On 2 February 2022 the EPA approved a request change to a proposal for MS 1131 under section 45C of the EP Act to add the Eastern Port Precinct (43.44 ha disturbance area) to MS 1131 to authorise preliminary site preparation works, including development of a temporary construction camp, clearing and earthworks associated with construction of an outer revetment rock wall.

2.5 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.

2.6 Source-pathways and receptors

2.6.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation, 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. Please note light emissions have been excluded from this Table as they are adequately managed under MS 1204.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Clearing, movement and refuelling of plant, machinery and vehicles, earthworks, compaction and stockpiling.	Air / windborne pathway	<ul style="list-style-type: none"> • Avoid vegetation clearing, grubbing and earthworks during high winds. • All major roads within the prescribed premises will be sealed, and a road sweeper regularly deployed. • Routine maintenance and housekeeping practices to prevent dust build up. • Unused exposed areas will be mulched or surfaces otherwise stabilised. • Water for dust suppression will be applied via water cart and misting sprays to any unsealed roads or cleared areas that pose a dust risk - implemented when dust is visible and based on predicted meteorological conditions. • Fit all dust suppression equipment with an overspray prevention device to limit inadvertent saline water impact on adjacent vegetation. • Vehicle movements at the Port facility are to be in accordance with PPA's Traffic Management

Emission	Sources	Potential pathways	Proposed controls
			<p>Plan (Ashburton) and kept to established roads (where available), flow paths and speed limits.</p> <ul style="list-style-type: none"> • Visual monitoring of dust. • Weekly environmental inspections. • Utilisation of three (trailer mounted) Nephelometer units to monitor PM10 at the site – one unit will operate at the Port boundary within 50-100 m from the work front, in the direction of sensitive human health receptors. During the construction phase the second monitor will be sited in the vicinity of Onslow Salt and during time limited operations (TLO) the third monitor will be sited in the vicinity of the Wheatstone Accommodation Village. • Establish community complaints register to log when and to what extent complaints are occurring.
Noise	Front end loader Idling/Slow Moving Truck Skid Steer Loader Roller Vibratory Roller Pavement Machine Excavator Tracked Mobile Crane Grinding	Air / windborne pathway	<ul style="list-style-type: none"> • Noise emissions to comply with the <i>Environmental Protection (Noise) Regulations 1997</i>. • Equipment and machinery regularly maintained in accordance with manufacturer specification to ensure optimum efficiency and minimise emissions. • Machinery fitted with appropriate mufflers. • Noise attenuating equipment will be used where practicable to minimise noise during operation.
Potentially contaminated stormwater (hydrocarbons, chemicals)	Overland runoff from construction areas Dust suppression using bore water (GWL207704)	Seepage to soil and groundwater	<ul style="list-style-type: none"> • Site stormwater directed towards local sumps via temporary drainage channels which are not expected to overflow. • Clean and dirty water temporary diversions will be established. Potentially contaminated stormwater will be contained within diversion channels and holding ponds constructed from compacted soils and not discharged into the environment. The compacted material will then be removed from site via an appropriately licensed controlled water contractor. • Equipment servicing will take place in designated areas. Field servicing will be undertaken in a manner that facilitates containment of all hydrocarbons and chemicals. • Containment bunds around facilities such as

Emission	Sources	Potential pathways	Proposed controls
			<p>vehicle servicing facilities, chemical / fuel storage areas and concrete batch plants will be designed to minimise flood water entry and be inspected on a regular basis.</p> <ul style="list-style-type: none"> • In the event of a spill, the spill is contained with spill response materials (absorbent booms/socks). Potentially contaminated material will be excavated and appropriately disposed of. • Dust suppression water during construction activities will be sourced from an onsite production bore (GWL207704). Water samples will be obtained from the bore prior to commencing construction activities under the Works Approval to obtain baseline water quality in the area. Sample collection and lab analysis is proposed for June 2023. • Water cart fitted with an overspray prevention device.
Sediment laden stormwater	Clearing and grubbing, topsoil stripping, truck dumping for fill and surcharge, cut and fill	Overland runoff from construction areas	<ul style="list-style-type: none"> • PPA approved Port Erosion and Sediment Control Plan: • Sedimentation controls will be constructed prior to the clearing of any large areas at risk of generating runoff. • Drainage infrastructure to have appropriate side slopes and a longitudinal grade of 1:100 to reduce velocity. • Rock protection at bends to reduce scour. • Adequate planning practice with buffer zones to protect riparian zones of natural creeks. • Maintenance of vegetated swales and verges. • Protection around culverts. • Sediment controls will be installed downstream of any disturbed land, prior to that work being undertaken. • Drains will be installed across the site to divert clean surface water to stable areas and away from parts of the site where soil is exposed. • Installation of sediment traps, basins and spillways to avoid adverse flood risk to adjoining properties (incl. marine environment). • Construction of bunds and localised grading to direct and minimise the velocity of the water flow. • Temporary windrows and drains with sediment traps will be constructed as required where the work front is. • Perimeter geotextile sediment/silt fences constructed parallel to the contours of the site in

Emission	Sources	Potential pathways	Proposed controls
			<p>surface water flow areas and adjusted as site construction progresses (4 construction stages) to minimise the sediment discharge from the site.</p> <ul style="list-style-type: none"> • Where possible, stormwater will be captured and used for construction activities. • Stormwater that could be contaminated by spills or leaks from will be directed to temporary holding ponds. • Installation of permanent seawall rock armour. • Compaction of all placed fill prior to leaving site during the wet season and when weather events are identified in advance of them impacting the works. • Installation of permanent erosion protection during the construction sequence. • If any areas of localised erosion develop, they will be remediated as soon as practicable to prevent further erosion or sediment deposition in offsite areas. • Regular inspections of stormwater surface water and sediment control structures to ensure hydraulic integrity and erosion and pollution control effectiveness. • ERSED controls must remain in place until disturbed area is stabilised. • Where possible, existing vegetation surrounding the construction site will be used as a buffer zone to help filter surface runoff and should not be disturbed unless necessary for the purpose of construction.
Operation (including commissioning and time limited operation)			
Noise	Mobile machinery and haul trucks Closed Conveyors and drives Conveyor Transfer Air extraction CAT 966 Front-End Loader Power station Dumping of ore	Air / windborne pathway	<ul style="list-style-type: none"> • Noise emissions comply with the <i>Environmental Protection (Noise) Regulations 1997</i>. • Equipment and machinery regularly maintained in accordance with manufacturer specification to ensure optimum efficiency and minimise emissions. • Machinery Plant fitted with appropriate mufflers. • Noise attenuating equipment used where practicable to minimise noise during operation.

Emission	Sources	Potential pathways	Proposed controls
Dust	<p>Material unloading from road trains (Truck Unloading shed) (Tipping Stations / Inloaders hoppers and feeders)</p> <p>Transfer stations (CV01 and CV03) and conveyors</p> <p>(Inloading conveyor CV01 Outloading conveyor CV03)</p> <p>Ship loader (SHL01) and Outloading conveyor (CV04)</p> <p>Dust collector systems</p>	Air / windborne pathway	<p>General</p> <ul style="list-style-type: none"> • Water carts available 24/7 for dust suppression. <p>Truck unloading shed</p> <p>Delivery</p> <ul style="list-style-type: none"> • Loads on haul trucks covered. • Ore delivered to the prescribed premises at or above the Dust Extinction Moisture (DEM). <p>Unloading</p> <ul style="list-style-type: none"> • Truck unloading into hoppers undertaken in semi-enclosed steel structure tipping station with a drive-in/drive out unloading arrangement. • Water dust suppression systems implemented within the tipping station. • Transfer stations include dust suppression sprays. • Concrete slabs and kerbs provided at areas where spillage is likely (i.e. transfer points). • Equipment regularly hosed down. <p>Feeder & conveyor</p> <ul style="list-style-type: none"> • Material from the in-loading system feed onto a single belt conveyor. • Inload conveyor CV01 includes carry side covers, over material burden and idlers, to prevent generation of dust. • Scrapers fitted at the head pulley to limit material carry back and belt ploughs at the tail-end to prevent belt damage. • CV01/CV02 transfer station enclosed. • Water spray dust suppression systems implemented on the feeder head chute and conveyor dust hood. <p>Storage and Reclaim – Ore Storage Shed</p> <ul style="list-style-type: none"> • single storage steel structure shed complete with tripper, rail mounted bridge reclaimer and direct out-loading (bypass) option. • dust collection system in the shed to mitigate dust escape and provide ventilation to permit the use of mobile equipment. • The Ore Storage Shed collected dust pumped as a slurry to the sedimentation pond. • The insertable dust collector at the load point on CV04 returned downstream.

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> • Maintain product storage/reclaim building at negative internal pressure using baghouse dust collectors. • All building openings not required for ventilation purposes airtight sealed, as far as practicable. • Openings (roller doors) electrically actuated, and the number of doors open at any time are controlled through regular visual inspection. • Outload conveyor CV03 includes carry side covers. <p>Wharf conveyor</p> <ul style="list-style-type: none"> • Wharf conveyor CV04 includes carry side covers. • CV03/CV04 transfer station enclosed/clad. • A baghouse dust collector installed on CV04 leading skirt dust hoods. <p>TSV Loader</p> <ul style="list-style-type: none"> • The TSV loader boom conveyor includes covers on the carry side. • Dust suppression water sprays are utilised on the discharge of the TSV loader boom. • The distance between the TSV loader boom and the TSV hopper kept to a minimum during loading operations to reduce fugitive dust emissions. • Single fixed boom shiploader, with both slewing and luffing capability to optimise clearance to the vessel loading point to assist in dust reduction. • The shiploader delivers material to a single point loading (SPL) hopper mounted on the tranship vessels for even distribution within the vessel. <p>Monitoring</p> <ul style="list-style-type: none"> • Utilisation of three trailer mounted light scattering E-samplers (Nephelometer units) during TLO to monitor Particulate Matter (PM10) at three locations: <ul style="list-style-type: none"> ○ Port boundary (within 50-100 m from the work front); ○ Vicinity of Onslow Salt; and ○ Vicinity of Wheatstone Accommodation Village. • Trigger value of 120 µg/m³ (more than two occurrences within 10 minutes) proposed, triggering investigation of weather conditions, and implementation of management actions

Emission	Sources	Potential pathways	Proposed controls
			which may include adjusting the trigger value as required.
Potentially contaminated stormwater	<p>Unlined Sedimentation basin</p> <p>Ore Storage Shed collected dust pumped as a slurry to the sedimentation pond</p> <p>Dust suppression water</p>	Overland runoff from contaminated areas draining to nearby surface waters or the marine environment or infiltrating to groundwater	<ul style="list-style-type: none"> • Unlined sedimentation basin with a 1 year ARI, 1 hour inflow volume (23,700 m³) to collect stormwater from the site via a series of drains and culverts. • Surplus stormwater discharged during emergency events from the sedimentation basin via an outlet structure to the tidal flats south of the site to be diluted with seawater. • In the event of an emergency such as extreme weather events, two grated inlets at 1.3 m and 1.5 m above the base of the pond directs emergency overflows to vacant land beyond the southern seawall of the prescribed premises. • Low flow pipe at the bottom of the basin level to allow drainage of the basin over an extended period of up to 96 hours depending on the storm event and tidal levels at the time. • Basin outflow culverts fitted with tide valves on the outlet end to control passive storage volume of the basin and act as a barrier to tidal/storm surge influences. • Basin outflow culverts fitted with concrete pits that act as overflow weirs to control the passive storage volume available within the basin for sediment settlement. • Sumps associated with the drainage from the haul road turn around fitted with oil water separators. • Drains associate with the drainage from the power station and fuel farm fitted with oily water separators. • Seawalls surrounding the Landside Facility and sandy soils (approximate infiltration rate of 0.8 to 0.9 m/day) will prevent site stormwater from freely flowing into the ocean. • Stormwater monitoring from sedimentation basin – quarterly spot sampling and pre discharge. • Groundwater monitoring during TLO to detect if surrounding groundwater becomes impacted from potential unauthorised discharge of contaminants entering the sedimentation basin during runoff events. • Sedimentation basins cleaned when the accumulated sediment has reduced the basin capacity by more than 30%. • Planned stormwater maintenance activities undertaken prior to and during cyclone season.

Emission	Sources	Potential pathways	Proposed controls
			<p>Inspections undertaken prior to cyclone season and following each storm events/run off event and at least every three months.</p> <ul style="list-style-type: none"> • Inspections to confirm the outlet structure is free from sediment blockage and has adequate scour control. • Water level marker/sediment depth marker installed and maintained (record depth of sediment). The volume of the sediment compared to the original design capacity to determine the available capacity. • Groundwater monitoring via bore network with quarterly spot sampling. • Sampling of surrounding marine water in accordance with an approved Marine Operational Environment Management and Monitoring Plan and any conditions imposed by Part IV.
<p>Unauthorised / unplanned discharge of hydrocarbons</p>	<p>Fuel unloading, storage, delivery and bunkering activities</p>	<p>Loss of containment / malfunction or leak or spill</p>	<ul style="list-style-type: none"> • Operate in accordance with the <i>Dangerous Goods Safety Act 2004</i> and fuel storage and handling in accordance with Australian Standards (AS) 1940. • Bunded areas under piping connections. • High level trips and Tank venting. • Fully welded pipe connections. • Over pressure protection including surge accumulator. • Elevation of platform above wave surge level as per jetty wharf design. • Couplings which meet requirements for diesel bunkering. • Intermittent operation of bunkering. • Emergency shut offs fitted. • Refuelling of light vehicles occurs in dedicated areas installed with impenetrable floors, bunds, and stormwater management systems; spill kits are also available. • Implement spill response procedures in line with PPA requirements. • Any fuel spills to be cleaned immediately with fuel affected material stored in appropriate waste receptacles in a bunded area pending removal offsite. • Training and competent operators. • Dedicated slip lane for diesel tankers.

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> • Spill kits checked on a regular basis and maintained in good order. • Stormwater diversion infrastructure. • Regular inspections of hydrocarbon storage and refuelling area. • Maintenance and inspection of hoses and couplings as defined by standards and/or requirements. • Spillages occurring as a result of incident or equipment failures addressed and reported through the MinRes incident reporting procedure and PPA requirements.

2.6.2 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 and Figures 1 to 3 below provide 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 premises

Human receptors	Distance from prescribed activity
Chevron wheatstone gas processing facility	<p>The Chevron facility boundary is located immediately to the southwest of the proposed premises, approximately 400 m.</p> <p>Train 1 within the facility is approximately 1.5 km southwest and the gas turbines are approximately 2.1 km southwest.</p> <p>SCREENED OUT - not considered sensitive human receptor due to the industrial nature of the site and no accommodation facilities.</p>
BHP Macedon Gas Facility	<p>~ 6 km southwest.</p> <p>SCREENED OUT - Not considered sensitive human receptor due to the industrial nature of the site and no accommodation facilities.</p>
Onslow Salt	<p>Evaporation ponds ~ 3 km southeast.</p> <p>Stockpile and export facilities ~10 km northeast.</p>
Chevron accommodation village	<p>Approximately 10 km south east of premises but proposed haul road is closer.</p> <p><i>'Dust deposition at the accommodation village may be apportioned solely to the operations of the AIP, including haulage'</i> – (s38 AIP Proposal Referral Supporting Document Rev 1).</p>
Onslow townsite	Approximately 10.5 km north east.

	SCREENED OUT – due to distance from premises.
Nearest registered site is Wheatstone 1. (Place ID 28713),	Approximately 736 m from the prescribed premises boundary. (This site was subject to Section 18 (s18) consent under the <i>Aboriginal Heritage Act 1972</i> (DPLH Ref# 34-13812) to disturb and subsequently salvaged as per the consent conditions. Therefore, is no longer extant no longer requires management or mitigation.
Thalanyji (WCD2008/003) Native Title Area	The Landside portion of the proposed facility occurs within the Thalanyji (WCD2008/003). The PPA has a heritage agreement with the Thalanyji People guiding consultation and other matters that may affect Thalanyji interests including within the Landside portion of the proposed works. Activities within the Landside Development Envelope will be managed under a Heritage Management Plan approved by the PPA - MS 1131 requires that the integrity and values of heritage sites are maintained between Ashburton Delta and Beadon Creek. (managed under MS 1204 and MS 1131)
Environmental receptors	Distance from prescribed activity
Priority species	The Short-tailed Mouse (<i>Leggadina lakedownensis</i>) (P4), and one reptile, Maryan’s Keeled Slider (<i>Lerista planiventralis maryani</i>) (P1), that have a High to Moderate likelihood of occurring within the area around the prescribed premises.
MNES migratory birds	The area surrounding the Facility consists of Primary Dune, Claypans and Tidal Flats. These areas provide seasonal habitats for numerous Migratory Matters of National Environmental Significance (MNES) shore/waterbird species (360 Environmental, 2021). (managed under MS1131)
Conservation significant species	Humpback Whale Australian Humpback Dolphin Dugong Flatback Turtle Green Turtle Hawksbill Turtle Australian Fairy Tern Bar-tailed Godwit Curlew Sandpiper Eastern Curlew Green Sawfish The Project is located within a biologically important area for the Flatback Turtle and Hawksbill Turtle with critical habitat for nesting and internesting for the Flatback and Green Turtles (Thevenard Island) and Hawksbill Turtle (Cape Preston to mouth of Exmouth Gulf) nearby (Pendoley Environmental 2022). (managed under MS 1204 via Artificial Light Impact Assessment and Management Plan, Marine Construction)

	Environmental Monitoring and Management Plan)
designated Ashburton River Delta 'Regionally Significant' mangrove area (EPA 2001),	<p>The designated Ashburton River Delta 'Regionally Significant' mangrove area (EPA, 2001) is located on the Western extent of the Port, approximately 2.2 km from the proposed premises.</p> <p>Mangroves are also located approximately 200 m south-east of the premises boundary along the riverbanks of Hooley Creek (West).</p> <p>(managed under MS 1131 - PPA implement approved Coastal Processes Monitoring and Management Plan which includes mangrove habitat monitoring. Under MS 873 Chevron also implement a Mangrove Algal Mat and Tidal Creek Protection Management Plan)</p>
Island nature reserves (ESA)	<p>A series of limestone island nature reserves are situated within the 20 m bathymetric contour, including Ashburton, Bessieres, Direction and Tortoise islands. The Project is located ~21 km from the nearest island nature reserve being Direction Island, (Pendoley Environmental 2022). Many have fringing coral reefs on the seaward side. Sandy beaches support turtle rookeries and suitable beaches and sandbars support shorebirds and seabird breeding colonies. There are limited tourist accommodation facilities on Thevenard Island. The orientation and low-lying elevation of the offshore islands means that nesting turtle females have direct visibility of the Project area lighting (Pendoley Environmental, 2022).</p> <p>(managed under MS 1204)</p>
Surface water	<p>Premises located within the Pilbara Surface Water Area (RIWI 1914).</p> <p>The project area is surrounded by saline coastal flats and a number of ephemeral creeks and drainage lines exist adjacent to the project area to the east within the Ashburton River Delta e.g. Hooley Creek ~200 m south-east from premises boundary, Middle Creek and Four Mile Creek (Hooley Creek and Four Mile Creek are popular fishing spots).</p> <p>(managed under MS 1131)</p>
Proclaimed Pilbara Groundwater Area	<p>Groundwater table (saline wedge) is approximately 1 m below the natural surface at the premises boundary. The groundwater is brackish to hyper-saline, near neutral to slightly alkaline in pH and also contains high levels of dissolved metals. The level of some of these metals are in excess of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018).</p> <p>(managed under MS 1204)</p>
Soils	<p>Sandy soils with an approximate infiltration rate of 0.8 to 0.9 m/day at the premises.</p>

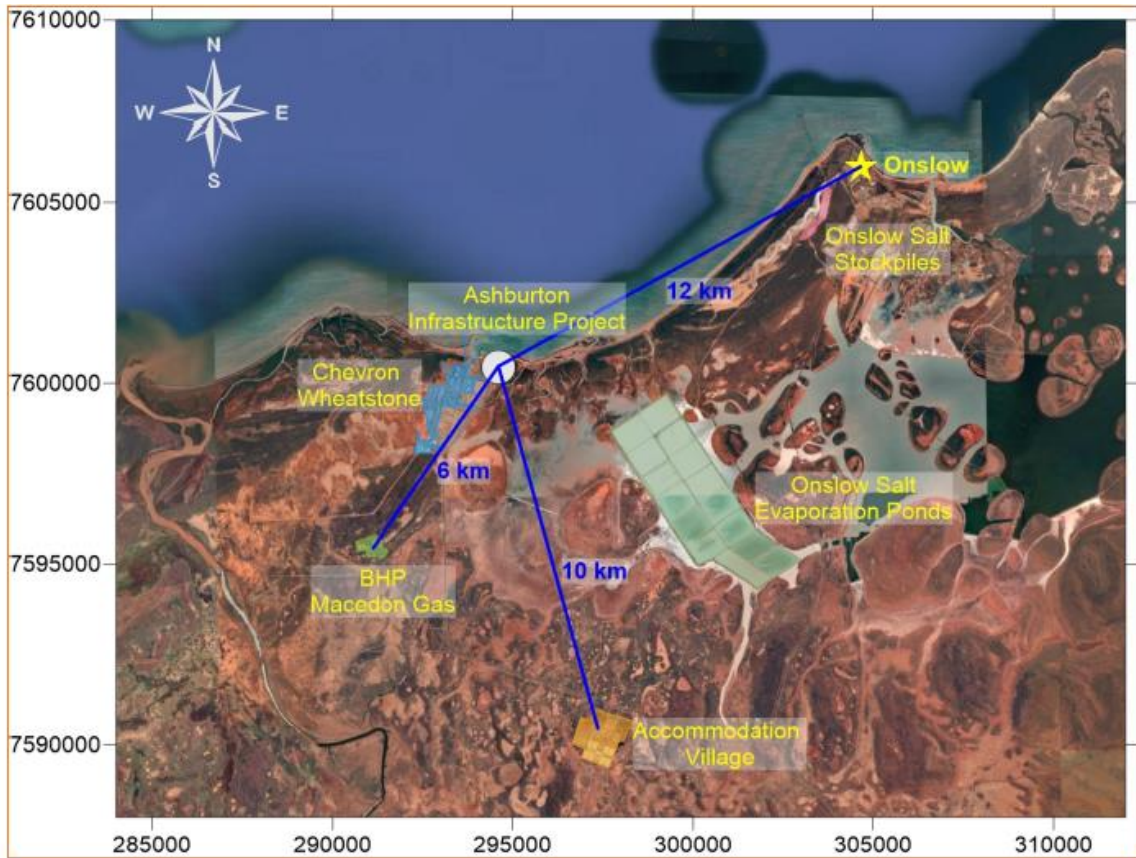


Figure 1: Distance to sensitive receptors

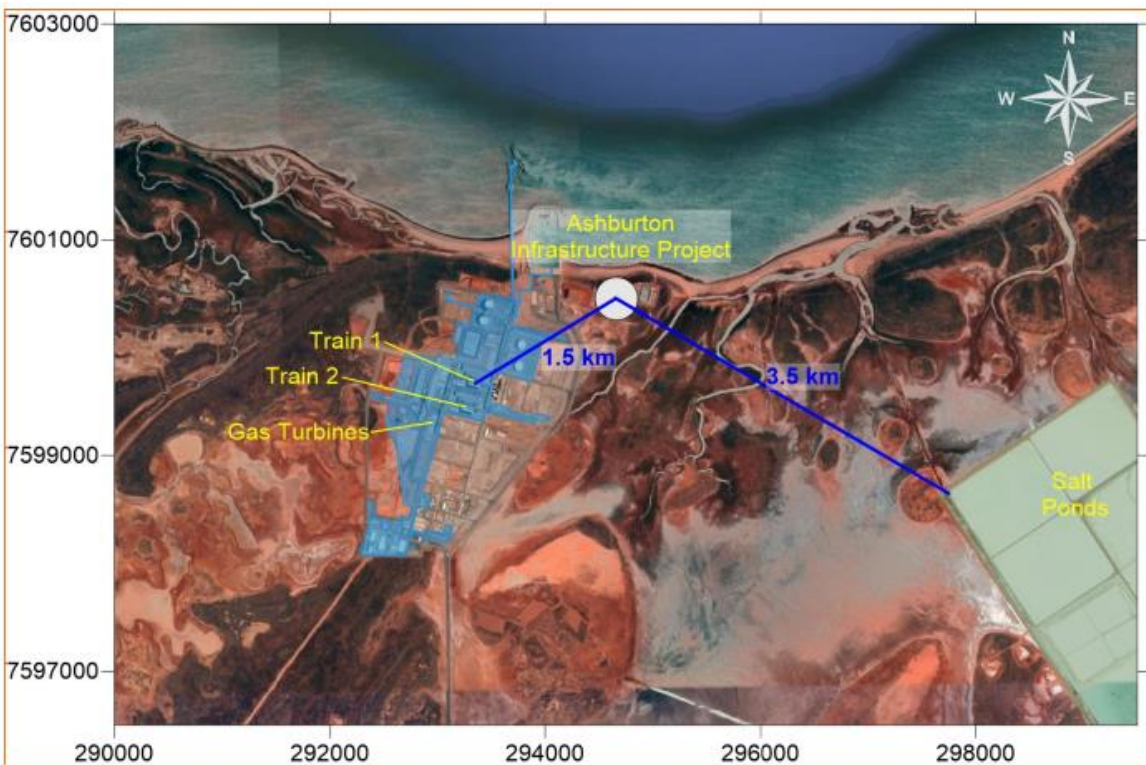


Figure 2: Distance to sensitive infrastructure

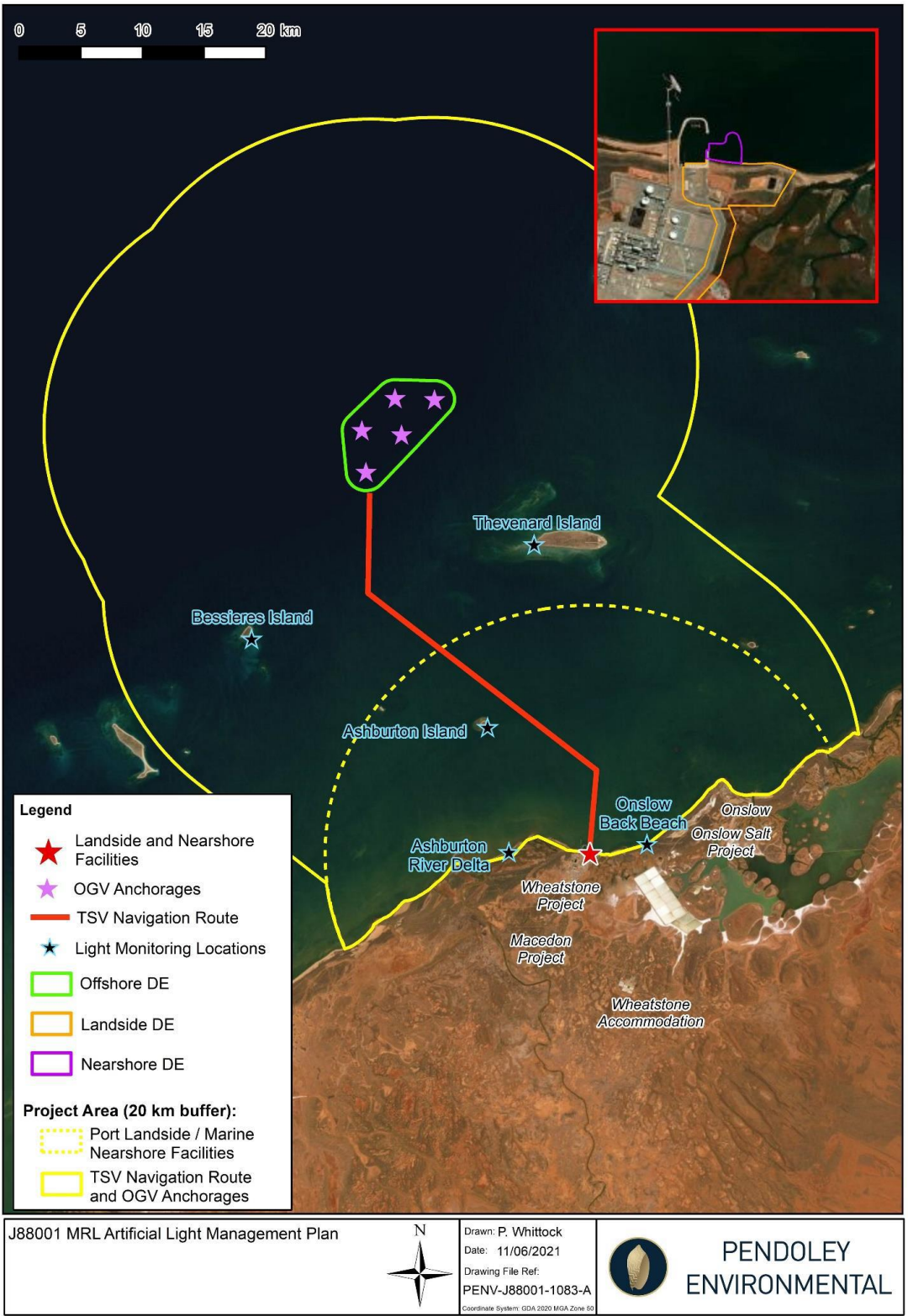


Figure 3: Port Distance to sensitive marine receptors (note OGV area not part of this assessment).

2.7 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 2.6. 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 2.6), 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 W6713/2022/1 that accompanies this decision report authorises construction, commissioning and time-limited operations. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the operation of the premises i.e. bulk loading of iron ore under Category 58. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

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

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Construction								
Clearing and grubbing, topsoil stripping, truck dumping of fill and surcharge material, Earthworks, compaction, stockpiling and construction activities Operation and movement of plant, machinery and vehicles.	Dust	Pathway: Air / windborne Impacts: to health and amenity and deposition onto plants and surface water, potentially causing compromised ecological function and surface water quality. Dust deposition onto the salt evaporation pans may result in a reduction in quality of the product.	Chevron Accommodation Village ~ 10 km Onslow Salt Evaporation Ponds ~ 3 km designated Ashburton River Delta 'Regionally Significant' mangrove area ~ 2.2 km west Hooley Creek West Mangroves ~ 20 0m southwest of boundary Marine environment and benthic communities and habitat within the Port of Ashburton	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1. Table 1: Design and construction / installation requirements – water cart, compaction of placed fill, covered haul trucks, sealed major roads. Condition 3 – avoid dust generating activities during high winds. Condition 4 – stabilising exposed surfaces during construction.	N/A.
Mobile machinery and equipment and construction works	Noise	Pathway: Air / windborne Impacts: to health and amenity	Wheatstone Facility ~ 1.5 km Chevron Accommodation Village ~ 10 km	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Table 1: design and construction / installation requirements - All mobile machinery fitted with mufflers or noise attenuating equipment to minimise noise emissions.	N/A.
Fuel and oil spills, unloading, storage, delivery, bunkering activities, machinery/ equipment	Hydrocarbons and chemicals	Pathway: Spill or leak from machinery and vehicles	Proclaimed Pilbara Groundwater Area ~1 mbgl Marine environment	Refer to Section 3.1	C = Minor L = Rare	Y	Table 1: design and construction / installation requirements: stormwater management infrastructure	N/A.

Works approval: W6713/2022/1

Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
malfunctions Operation and movement of plant, machinery and vehicles Spill of diesel from fuel storage facility or fuel delivery pipes		causing direct discharge to soils and infiltrating to groundwater or draining to local drainage systems and the marine environment. Impact: Potentially contaminated soils, surface waters, marine environment and groundwater	and benthic communities and habitat within the Port of Ashburton designated Ashburton River Delta 'Regionally Significant' mangrove area ~ 2.2 km west Hooley Creek West and associated mangroves ~ 200 m southwest of boundary		Low Risk		during construction. (The general provisions of the EP Act and the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> still apply).	
Earthworks, compaction, stockpiling and construction activities	Sediment laden stormwater	Pathway: Overland runoff across operational areas draining to nearby surface waters or marine environment. Impact: potentially causing erosion, ecosystem disturbance or impacting surface water quality.	Proclaimed Pilbara Groundwater Area ~1 mbgl Marine environment and benthic communities and habitat within the Port of Ashburton Conservation significant birds including Australian Fairy Turn, Bar-tailed Godwit Curlew Sandpiper and the Eastern Curlew Priority species including The Short-tailed Mouse (<i>Leggadina lakedownensis</i>) (P4), and Maryan's Keeled Slider (<i>Lerista planiventralis</i>)	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Table 1: design and construction / installation requirements: stormwater management infrastructure during construction. Condition 2 - weekly inspections of stormwater infrastructure.	N/A.
Leak from fuel delivery pipes, vehicles or machinery or spill during refuelling activities	Potentially contaminated stormwater (hydrocarbons)	Pathway: Overland runoff mixing with spill / leak draining to		Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Table 1: design and construction / installation requirements: stormwater management infrastructure	N/A.

Works approval: W6713/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
	and chemicals)	surface water or infiltrating through soil to groundwater Impact: contamination of soil, surface water or groundwater, potentially causing adverse impacts on terrestrial ecology and the marine environment	<i>maryani</i>) (P1) designated Ashburton River Delta 'Regionally Significant' mangrove area ~ 2.2km west Hooley Creek West Mangroves ~ 200m southwest of boundary				during construction. Condition 2 - weekly inspections of stormwater infrastructure.	
Operation (including commissioning and time-limited-operations operations)								
Vehicle movements Truck unloading at tipping station using tipping stations, Inloaders, hoppers and feeders Transport of product via Transfer stations (CV01 and CV03) and conveyors (Inloading conveyor CV01 and Outloading conveyor CV03) Ship loading using Ship loader (SHL01) and Outloading conveyor (CV04) Dust from baghouse filters Baghouse filter issues Wind erosion from open areas	Dust /air quality	Pathway: Air / windborne Impacts: to health and amenity and deposition onto plants and surface water, potentially causing compromised ecological function and surface water quality. Dust deposition onto the salt evaporation pans may result in a reduction in quality of the	Chevron Accommodation Village ~ 10 km Onslow Salt Evaporation Ponds ~ 3.0 km designated Ashburton River Delta 'Regionally Significant' mangrove area ~ 2.2k m west Hooley Creek West Mangroves ~ 20 0m southwest of boundary	Refer to Section 3.1	C = Minor L = Possible Medium Risk	N	Condition 1. Table 1: Design and construction / installation requirements – sealed major roads, water cart, covered conveyors, dust suppression at transfer stations, dust collectors, boom shiploader with slewing and luffing capabilities, dust monitoring network etc. Condition 20 Table 4. Infrastructure and Condition 11 Table 2 – maintain product storage shed at negative internal pressure and Ore delivery at or above DEM + <u>maintain baghouse filter system in good working order and keep records of maintenance.</u>	Requirement to maintain baghouse filter system in good working order with maintenance records added to works approval during time limited operations to reduce the risk of a poorly maintained filter system contributing to increased dust and air quality emissions. The requirement for the PM10 monitors to active alarms when triggers are exceeded added to works approval so investigation and management

Works approval: W6713/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Power generation		product.					<p><u>Condition 11: Table 2 – alarms when PM10 trigger exceeded during commissioning and investigation follow up.</u></p> <p>Condition 12: Table 3 and condition 22: Table 7: trigger of 120ug/m³ for PM10 (2 exceedances in 10 minute timeframe).</p> <p><u>Condition 25 – reporting of breaches to Department.</u></p> <p><u>Condition 26: Investigation and management action requirement following trigger exceedances.</u></p>	<p>actions can be initiated as required.</p> <p>Condition 25 and 26 added to licence to ensure all breaches of triggers are notified to the Department and investigations and management actions initiated. This prevents further exceedances.</p>
Movement / operation of Closed conveyors and Conveyor drives Dumping of ore Ore clean ups Air extraction Operation of mobile Machinery such as front end loaders Operation of the Power Station and other ancillary Infrastructure Haul trucks Power station	Noise	<p>Pathway: Air / windborne</p> <p>Impacts: to health and amenity</p>	Wheatstone Facility ~ 1.5 km Chevron Accommodation Village ~ 10 km	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1. Table 1: Design and construction / installation requirements – noise attenuating equipment on mobile machinery.	N/A.

Works approval: W6713/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Fuel and oil spills, unloading, storage, delivery, bunkering activities, machinery/ equipment malfunctions	Hydrocarbons and chemicals	<p>Pathway: Direct discharge via spill or leak (containment breach) to soil and filtrating to groundwater or draining to drainage system to discharge to local drainage systems.</p> <p>Impact: potentially contaminated soils, groundwater, surface water and marine environment and potentially causing adverse impacts to ecosystems</p>	<p>Proclaimed Pilbara Groundwater Area ~1 mbgl.</p> <p>Marine environment and benthic communities and habitat within the Port of Ashburton.</p> <p>designated Ashburton River Delta 'Regionally Significant' mangrove area ~ 2.2 km west.</p> <p>Hooley Creek West and associated mangroves ~ 200 m southwest of boundary.</p> <p>Stormwater discharge area being the tidal flats beyond the southern seawall of the premises and local drainage sumps / drains.</p>	Refer to Section 3.1	<p>C = Minor</p> <p>L = Rare</p> <p>Low Risk</p>	Y	Condition1: Table 1, Condition 11: Table 2 and Condition 20 Table 4 – Fuel storage and handling in accordance with AS 1940.	N/A.
<p>Excess sediment from main sedimentation basin</p> <p>The Ore Storage Shed collected dust pumped as a slurry to the sedimentation pond.</p>	Sediment laden stormwater	<p>Pathway: Overland runoff, overtopping of sedimentation basin or direct discharge to tidal flats.</p> <p>Impact: potentially causing erosion, ecosystem disturbance or</p>	<p>Stormwater discharge area being the tidal flats beyond the southern seawall of the premises.</p> <p>designated Ashburton River Delta 'Regionally Significant' mangrove area ~ 2.2 km west.</p> <p>Hooley Creek West and associated mangroves ~ 200 m</p>	Refer to Section 3.1	<p>C = Minor</p> <p>L = Rare</p> <p>Low Risk</p>	Y	<p>Condition 1. Table 1: Design and construction / installation requirements – stormwater infrastructure including rock armoured sediment pond outlet structure, low flow base outlet pipe and concrete pits that act as overflow weirs.</p> <p>Condition 20. Table 4. Infrastructure and equipment requirements during time limited</p>	N/A.

Works approval: W6713/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
		adversely impacting surface water quality.	south west of boundary. Marine environment and benthic communities and habitat within the Port of Ashburton.				operations – 0.3 m freeboard, inspections and sediment excavation requirement.	
Spills during plant and mobile machinery refuelling Leaks from compromised fuel unloading, storage, delivery and bunkering activities Waste oils and chemicals from supporting/auxiliary infrastructure/equipment	Potentially contaminated stormwater (hydrocarbons, chemicals, saline water, slurry from ore storage shed)	Pathway: malfunctioning oily water separators or stormwater infrastructure draining potentially contaminated stormwater to the sedimentation pond. Or direct discharge of or potentially contaminated slurry to the sedimentation pond. Impact: contamination of soil, surface water or groundwater, potentially causing adverse impacts on terrestrial ecology and the marine environment.	Proclaimed Pilbara Groundwater Area ~1 mbgl.	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	N	Condition 1. Table 1: Design and construction / installation requirements – oily water separators capable of <15mg/L TRH discharge installed at the fuel storage and Power Station drain. Condition 12: Table 3 and condition 22: Table 7: >15mg/L trigger for TRH's for sedimentation basin and groundwater bore samples during commissioning and TLO. Condition 12. Table 3 – trigger >15mg/L at sedimentation basin and monitoring bores during commissioning and groundwater sampling method in accordance with AS/NZS 5667.11. Condition 22. Table 7 – trigger >15mg/L at sedimentation basin and monitoring bores during TLO and groundwater sampling method in accordance with AS/NZS 5667.11. Condition 25 – reporting of breaches to Department . Condition 26: Investigation and	The unlined nature of the sedimentation pond poses a risk to nearby sensitive receptors such as the Proclaimed Pilbara Groundwater Area approximately 1 mbgl and the marine environment, if the stormwater infrastructure is not adequately designed and maintained. The requirement to set a trigger for total recoverable hydrocarbons (TRH) for the sedimentation pond and groundwater monitoring bore samples during commissioning and TLO has been added to the works approval to validate that the stormwater infrastructure is operating as intended. The limit of 15 mg/L is in accordance with Water quality protection note 68 (DWER, 2013). The requirement for the oily water separators installed at the

Works approval: W6713/2022/1

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
							<u>management action requirement following trigger exceedances.</u>	power station and fuel storage area to be capable of operating to 15 mg/L TRH has also been added to the works approval for the same reason. AS/NZS 5667.11 added to works approval as it is best practice for bore sampling in Australian.

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.

3. 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 02 September 2022.	None received	N/A.
Shire of Ashburton advised of proposal on 24 August 2022.	None received.	N/A.
Pilbara Ports Authority (PPA) advised of proposal on 05 September 2022.	Response received on 21 September 2022. Feedback provided related to the regional location of the proposed premises boundary, Aboriginal heritage considerations and brine discharges from the RO plant.	Department requested the multi-user Ashburton Cargo Wharf was removed from the premises boundary. PPA concerns related to Aboriginal Heritage and hypersaline brine discharge are adequately managed under MS 1204.
Buurabalayji Thalanyji Aboriginal Corporation advised of proposal on 24 August 2022	None received.	Aboriginal heritage and engagement concerns adequately managed under MS 1204.
Department of Climate Change, Energy, the Environment and Water (DCCEEW) advised of proposal on 17 October 2022	Comments received 07 November 2022: <i>'The Department has reviewed the works approval application documents provided on 17 October 2022 and we can confirm that the activities relevant to the application are currently being considered under EPBC Act (EPBC 2021/9064) for their impacts on listed threatened species and listed migratory species. As the proposal is currently under assessment and an approval decision is pending, the department is unable to make comment on the works approval application W6713/2022/1 at this time. Once an approval decision has been made, the department will notify the WA Department of Water and Environmental Regulation of the outcome.'</i>	Noted.
Applicant was provided with draft documents on 05 July 2023.	Comments received 07 July 2023. Follow up explanation regarding stormwater infrastructure received 10 July 2023 as requested by the department. Refer to Appendix 1 for summary.	Refer to Appendix 1.

4. 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. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Environmental Protection Authority (EPA) 2018, *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual*, Environmental Protection Authority, Perth, WA.
5. EPA 2001, *Protection of Tropical Arid Zone Mangroves Along the Pilbara Coastline*, Environmental Protection Authority, Perth, WA
6. Office of the Appeals Convenor. 2020. *Statement No. 1131 - Wheatstone Development – Shipping channel, Materials Offloading Facility, and Access Road Shire of Ashburton*. Accessed at https://www.epa.wa.gov.au/sites/default/files/1MINSTAT/Statement%201131_0.pdf
7. Office of the Appeals Convenor. 2023. *Statement No. 1204 – Ashburton Infrastructure Project*. Accessed at <https://www.epa.wa.gov.au/sites/default/files/1MINSTAT/1733%20Statement%201204%20for%20publishing%20-%20Ashburton%20Infrastructure%20Project.pdf>
8. Snooks & Co 2002, *Style Manual for Authors, 6th Edn*, John Wiley & Sons Australia Ltd, Brisbane.

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

Condition	Summary of applicant's comment	Department's response
Applicant response received 7 July 2023:		
<i>Attachment A – Draft Works Approval – Outstanding Matters</i>		
<p>Table 1 (item 1) – stormwater infrastructure features map during construction</p> <p>Table 1 (item 10) – stormwater infrastructure features map after construction</p>	<p>Provided on Stormwater Infrastructure Figure in Attachment C.</p>	<p>Temporary stormwater infrastructure map during construction not provided. DWER followed up with the applicant for this figure on 10 July 2023 and was advised the figure is not available.</p> <p>The department will allow this as the construction conditions have to be complied with and evidence of the construction submitted in the Environmental Compliance Report. Works approval updated accordingly.</p>
<p>Table 1 (item 5), Table 1 (item 6), Table 1 (item 7) and Table 1 (item 8) and Schedule 1 Maps - Applicant to provide aerial figure/s depicting infrastructure layout at premises</p>	<p>Provided on Site Layout Figure in Attachment C.</p>	<p>Figure acceptable and inserted into works approval.</p>
<p>Table 1 (item 9) - Applicant to provide aerial figure/s depicting infrastructure layout at premises.</p>	<p>The Transhipment Vessel (TSV) at Port Berth is signified on the figure as Wharf Conveyor and Ship Loader – as this is included in a separate Licence Application as for the purpose of the Works Approval and commences at the Wharf Conveyor and Ship Loader.</p>	<p>DWER noted.</p> <p>Administrative error in requesting figure, figure not required to show TSV.</p>
<p>Table 1 (item 11) Applicant to specify proposed Australian Standard for</p>	<p>Proposed change: "II. Monitors capable of monitoring Particulate Matter (PM10) equivalent to reference methods in AS/NZS 3580.9.17:2018."</p>	<p>Change acceptable. Works approval updated (Table 1 (item 11) and Table 3) and AS/NZS 3580.9.17:2018 added to definitions.</p>

Works approval: W6713/2022/1

Condition	Summary of applicant's comment	Department's response
Light Scattering Method	AS/NZS 3580.9.17:2018 covers the conditions for a method to be considered equivalent to the reference method, however this has to be done for the specific ambient conditions experienced at its intended sampling locations, which means that the study is only valid for the site where it was performed. In practice this is not possible at most of the sites (as the Standard requires Mains Power, whereas our systems are Solar Powered), so the AS has been used to perform a few studies mainly in urban locations. The laser-scattering method is accepted for measuring PM10 and PM2.5 where the conditions prevent the use of an AS method.	
Table 3 - Applicant to specify proposed Australian Standard for Light Scattering Method	Wording to read "Equivalent to AS/NZS3580.9.17:2018".	Change acceptable. Works approval updated (Table 1 (item 11) and Table 3) to reflect change and AS/NZS 3580.9.17:2018 added to definitions.
Table 4 (item 8) - Applicant to provide map showing final bore monitoring locations as well as the location of the two existing bores that will gather the baseline groundwater quality data	Provided on Groundwater Bore Figure in Attachment C.	Existing bore figured inserted into works approval. DWER notes that a map showing the location of the new bores (once constructed) and existing bores must be provided to the department in accordance with condition 5 of the works approval.
Table 5 (item 1) Table 5 (item 2) Table 5 (item 3) Schedule 1: Maps (Figure 5)	Provided on Discharge Point Figure in Attachment C.	Figure acceptable and added to works approval.
Table 6 - Applicant to specify proposed Australian Standard for Light Scattering Method.	Wording to read "Equivalent to AS/NZS3580.9.17:2018".	Table updated.

Condition	Summary of applicant's comment	Department's response
<i>Attachment B – Draft Decision Report– Outstanding Matters</i>		
Section 2.2 of the decision report - Applicant, please clarify seawater intake and brine discharge as they cannot be the same volume	This is an administrative error. The Seawater Intake is 2GL/annum and Discharge Brine 1.2GL/Annum.	Decision report updated.
Table 1 (Potentially Contaminated Stormwater) of the decision report - Sediment discharge reduction measures, discharged on high tide?	<p>The sedimentation basin outlet structure and culverts have been sized (with consideration to the storage/attenuation capacity of the basin) to safely convey the major event (1% AEP) without flooding the adjacent drainage network. The basin discharge culverts are recommended to be fitted with tide valves and concrete pits that act as overflow weirs to control to passive storage volume available within the basin for sediment settlement.</p> <p>Further detail is provided on Stormwater Infrastructure Figure in Attachment C.</p>	<p>DWER notes that basin outflow culverts fitted with tide valves on the outlet end are already required by Condition1: Table 1 (item 10) IX.</p> <p>Concrete pits that act as overflow weirs added to the works approval Table 1 (item 10) X and decision report updated to reflect the addition of a new control.</p>
<i>Attachment C – Updated Figures</i>		
	<ul style="list-style-type: none"> • Site Layout Figure • Discharge Location Figure • Groundwater Monitoring Bore Figure – showing existing two existing bores and production bore • Stormwater Infrastructure Figure 	All figures acceptable. New figures added to works approval and figure numbers updated accordingly.
<i>Attachment D – Draft Works Approval – Suggested Edits/Comments</i>		
Table 1 (item 1) XI – Applicant to specify whether condition possible or will it be returned to product?	The applicant accepts this condition – potentially contaminated soil and stormwater will be disposed of off-site during construction at a licensed facility as per the Mineral Resources Hydrocarbon and Chemical Management Procedure (MRL-EN-PRO-0002).	Noted, condition unchanged.

Condition	Summary of applicant's comment	Department's response
Table 1 (item 11) – Applicant to Specify proposed Australian Standard for Light Scattering Method.	<p>Proposed change to wording to read:</p> <p>"II. Monitors capable of monitoring Particulate Matter (PM10) equivalent to reference methods in AS/NZS 3580.9.17:2018".</p> <p>Context being - AS/NZS 3580.9.17:2018 covers the conditions for a method to be considered equivalent to the reference method, however this has to be done for the specific ambient conditions experienced at its intended sampling locations, which means that the study is only valid for the site where it was performed. In practice this is not possible at most of the sites (as the Standard requires Mains Power, whereas our systems are Solar Powered), so the AS has been used to perform a few studies mainly in urban locations. The laser-scattering method is accepted for measuring PM10 and PM2.5 where the conditions prevent the use of an AS method.</p>	Change acceptable. Table 1 (item 11) updated.
<p>Table 3: Emissions and discharge monitoring during environmental commissioning</p> <p>And</p> <p>Table 6: Emissions and discharge monitoring during time limited operations</p>	Sampling method wording to read: Equivalent to AS/NZS3580.9.17:2018".	Change acceptable. Tables 3 and 6 updated accordingly.
Table 5: Authorised discharge points – DWER request for number of stack emission points and height	Stack Emissions (9 of 10.4 m in height) this is outlined on the Discharge Point Figure.	Works approval updated (Table 5) with details and Figure.
Applicant response received 10 July 2023.		
DWER request sent 10 July 2023:	As discussed, our engineering team do not create drawings for temporary stormwater infrastructure as it is all managed onsite via	DWER response sent 10 July 2023: Confirming works approval can progress without a

Condition	Summary of applicant's comment	Department's response
<p>the stormwater infrastructure during premises construction location figure has not been provided as requested. Request for the map to be provided.</p>	<p>the controls in the Erosion and Sedimentation Plan.</p> <p>OIP-7000-CI-PLN-1001.2.IFC.2.01 attached ('Stage 2 earthworks and stormwater drainage – general arrangement' and provided with our response) reflects the permanent state of stormwater infrastructure post construction. As you have mentioned below, there are no silt fences included on the Plan. This is due to silt fences being utilised throughout construction phases only as a temporary measure, therefore are not required during permanent/operational states as the infrastructure constructed is sufficient.</p>	<p>temporary stormwater infrastructure map (Table 1 (item 1)), updated to read 'N/A – location not fixed due to staged site construction works' in the infrastructure location column.'</p> <p>The applicant is required to provide evidence of the temporary stormwater controls being appropriately constructed in the Environmental Compliance Report.</p> <p>The stormwater infrastructure location map already provided as the Table 1 (item 10) map.</p>

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY	
Application type	
Works approval	<input checked="" type="checkbox"/>
Date application received	19/07/2022
Applicant and Premises details	
Applicant name/s (full legal name/s)	Onslow Infraco Pty Ltd (ACN: 612 668 201)
Premises name	Ashburton Infrastructure Project – Port Landside and Nearshore
Premises location	Part of Lot 555 on Deposited Plan 402556 Part of Lot 569 on Deposited Plan 71345 Part of Lot 570 on Deposited Plan 71345 860 coordinates provided for prescribed premises boundary
Local Government Authority	Shire of Ashburton
Application documents	
HPCM file reference number:	DER2022/000334
Key application documents (additional to application form):	<ul style="list-style-type: none"> • Cover letter • Application form • Application form reduced • Part 1 supporting document no appendices • Part II supporting document no appendices • Part III supporting document appendices • Part IV supporting document appendices <p>Appendices include:</p> <ul style="list-style-type: none"> • Appendix A – Prescribed Premises Boundary Coordinates • Appendix B – Attachment 3B Additional Information • Appendix C – Attachment 3A Environmental Commissioning Plan • Appendix D – Terrestrial Environmental Management Plan • Appendix E – Approvals Decisions • Appendix F - Stakeholder Engagement Register • Appendix G - Air Quality Assessment Report (ETA 2022) • Appendix H – Noise Assessment (Lloyd George Acoustics (2021) • Appendix I – Artificial Light Impact Assessment and Management Plan (Pendoley Environmental (2022) • Appendix J – Flood Modelling • Appendix K – Attachment 10: Data to Calculate Cost of Work Approval Fee
Scope of application/assessment	
Summary of proposed activities or changes to existing operations.	<p>New Works Approval Application</p> <p>Onslow Infraco Pty Ltd (the Applicant) proposes to construct and operate a category 58 Bulk Handling Facility at the Port of Ashburton to support the export of iron ore as a Direct Shipping Ore (DSO). The Port of Ashburton (the Port), is a multi-user port located within Ashburton North Strategic Industrial Area (ANSIA) approximately 10km west of the Onslow town site.</p> <p>The proposed facility will be capable of handling up to 40 million tonnes per annum (Mtpa) of iron ore (110,000 tonnes per day), transported to the Port by</p>

	<p>road train from a number of different satellite mining operations in the West Pilbara. The port facilities are expected to support the export of 30-40 Mtpa over 30 to 40 years.</p> <p>The construction of the port product handling, storage and loading infrastructure along with the proposed haul road, desalination plant and offshore transshipment facility are collectively referred to the Ashburton Infrastructure Project (AIP), which is part of the larger Ashburton Hub Project which involves export of mining product from the Bungaroo South Mine, and other potential stranded Iron Ore deposits in the West Pilbara.</p> <p>Key infrastructure at the proposed prescribed premises includes a road train unloading shed, storage and reclamation sheds (ore storage), out loading facility and wharf and jetty ship loader. The facility will include fully enclosed product storage, with a storage capacity of up to 300,000 tonnes of ore product.</p> <p>Conceptual Process Flow</p> <ul style="list-style-type: none"> • Road trains will enter a product handling and storage facility and proceed to a multi-lane tipping station, being an enclosed shed in which ore is side-tipped from the trucks into receiving hoppers; • Ore from the hoppers will feed onto a large, covered in-load conveyor, where it will be conveyed to the ore storage shed (300,000 tonne capacity) for stockpiling and blending; • A reclaimer will operate within the storage sheds and from there will transfer ore onto the out-load conveyor. On occasion, DSO may be conveyed directly to the out-load conveyor, bypassing the product storage shed; • Ore on the out-load conveyor will be periodically tested to ensure grade control by redirecting samples to the product sample station; and • Ore is then transferred to the wharf conveyor via a transfer/feed chute, which feeds the swing-arm ship loader. The ship loader (also referred to as the TSV loader) carefully directs the ore into the hold of the TSV to ensure even loading. <p>Transport of product via TSVs will be on a 24-hours, seven days a week basis to anchorage points to be loaded onto Ocean Going Vessels (OGVs).</p> <p>Exclusions</p> <p>The proposed seawater desalination plant (intake of up to 2 Gigalitres seawater per year and up to 2GL/annum discharge brine), proposed non-commercial gas fired Power Station (14 Megawatts) proposed wastewater treatment plant (15 kL/day system), and proposed fuel storage facility (660 kilolitres) are not of sufficient scale to trigger a category under Schedule 1 of the EP Regulations and require licensing and approval under Part V of the EP Act.</p> <p>Monitoring Proposed</p> <ul style="list-style-type: none"> • Utilisation of two (trailer mounted) Nephelometer units during TLO at sensitive receptors and around the Port to monitor fugitive dust deposition (< 2g/m2/month at all sensitive receptors) • Groundwater monitoring via bore network with quarterly spot sampling (the current monitoring locations and number of bores is still being finalised and will be completed in conjunction with PPA and regulatory requirements prior to commencement of TLO.) • No noise monitoring proposed – noise modelling found noise to comply with EP Regs • Stormwater monitoring from sedimentation basin – quarterly spot sampling
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	<ul style="list-style-type: none"> • Sampling of surrounding marine water in accordance with an approved Marine Operational Environment Management and Monitoring Plan and any conditions imposed by Part IV. • Sampling program to ensure the WWTP is meeting the required water quality levels <p>Project Timeline The applicant is proposing to commence construction works in Dec 2022, which will last up to 18 months. Commissioning is expected to commence in Q3 2023 for a 12-month period with the anticipating completion date in Q2 2025. The Applicant has proposed a 180-day period for time limited operations, or until the licence is granted.</p> <p>MS 1131 and Part IV Approval The Pilbara Port Authority (PPA) is the nominated proponent responsible for administering MS 1131. MS 1131 is for the on-going operation of the following onshore, nearshore, and offshore facilities located within the Port of Ashburton with the following operational elements:</p> <ul style="list-style-type: none"> • Shipping Channel; • Materials Offloading Facility; and • Access Road. • Eastern Port Precinct (new element added in February 2022 via s45c) <p>MS 1131 was not originally intended to operate a significant iron ore facility.</p> <p>The Proponent made the decision to split the approvals assessment process for the AIP Proposal, to pursue separate assessment and approvals under the Commonwealth EPBC Act and Part IV of the WA EP Act, in order to support the progress of a Minor and Preliminary Works application under s 41A(3) of the EP Act.</p> <p>The proposal was referred to the EPA (EPA Assessment number 2320) for assessment under Part IV. Earthworks required for the Landside component of the prescribed premises will be developed in accordance with the PPA Eastern Planning Precinct (EPP). EPA approved a request to make change to a proposal for MS 1131 under Section 45C of the EP Act to undertake these works on 2 February 2022. Earthworks include clearing, filling and construction of an outer revetment rock wall. The filling of the site will provide a development-ready hardstand area at an elevation suitable for the Port infrastructure proposed as part of this WA.</p> <p>The AIP was referred to DAWE under the EPBC Act on 16 Nov 2021 and was deemed a Controlled Action with the potential to impact listed threatened species and communities as well as listed migratory species. A determination was made by DAWE on 16 February 2022 that the Proposal would be assessed at the level of a Public Environment Report (PER). The Proponent anticipates that the EPBC Act assessment and approvals process will be completed by Q4 2022.</p>
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Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Proposed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 58: <i>Bulk material loading or unloading: premises on which clinker, coal, ore, ore concentrate or any other bulk granular material (other than salt) is loaded onto or unloaded from vessels by an open materials loading system</i>	<i>Up to 40 Mtpa and 110,000 tonnes per day.</i>	N/A

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Referral decision No: EPA Assessment number 2320 (Case Number CMS18094) Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input checked="" type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 1131 EPA Report No: 1653
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Reference No: EPBC 2021/9064 (JTSI lead agency)
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input checked="" type="checkbox"/> Expiry: Proof of Occupier Status, the DA087 and Works Approval Application Letter of PPA support is included as Attachment 1A – Proof of Occupier Status. A current ASIC company extract for Onslow Iron Pty Ltd as well as an ASIC Certificate of Registration on Change of Name to Onslow Infracore Pty Ltd is provided in Attachment 1B – ASIC Company Extract.

<p>Has the applicant obtained all relevant planning approvals?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/></p>	<p>Approval: DA087 Expiry date: N/A</p> <p>The PPA has approved a Land Lease Agreement with the Proponent and a Development Application (DA087) for site preparation works.</p> <p>Onslow Infraco is party to a construction license with the PPA dated 8 June 2022. Onslow Infraco are also in the process of finalising the Infrastructure Development Agreement (IDA) and Lease with PPA (with works continuing subject to the approval of various construction approvals). The IDA and Lease will allow the Proposal to be developed by Onslow Infraco, as Proponent, to carry out activities on PPA vested lands, seabed or water areas.</p>
<p>Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>CPS No: N/A</p> <p>clearing authorised under MS1131. EPA approved a request a change to a proposal for MS 1131 under Section 45C of the EP Act to undertake site preparation works, including clearing, on 2 February 2022.</p>
<p>Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Application reference No: N/A Licence/permit No: N/A</p>
<p>Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Application reference No: Licence/permit No: GWL ID 049244</p>
<p>Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Name: N/A</p> <p>No discharges of waste but premises situated in Proclaimed Pilbara Groundwater Area.</p> <p>Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p>Regional office: North West</p>

<p>Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Name: N/A Priority: N/A Are the proposed activities/landuse compatible with the PDWSA (refer to)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p>
<p>Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<ul style="list-style-type: none"> • Dangerous Goods Safety Act 2004 • Environment Protection and Biodiversity Conservation Act 1999 • Health Act 1911 • Port Authority Act 1999 • Planning and Development Act 2005 • EPA guidance statement No. 1 Protection of Tropical Arid Zone Mangroves along the Pilbara Coastline) • Rights in Water and Irrigation Act 1914 (WA) • Environmental Protection (Noise) Regulations 1997 • Thalanyji native title determination (WCD2008/003).
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</p>
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</p>
<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Classification: N/A Date of classification: N/A</p>