

EPBC Act referral



Australian Government

Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Title of proposal	2020/8739 - Ammonia Plant, Murujuga Burrup Peninsula - Renewable Hydrogen Project
Section 1	
Summary of your proposed action	
1.1 Project industry type	Energy Generation and Supply (renewable)
1.2 Provide a detailed description of the proposed action, including all proposed activities	
<p>Yara Pilbara Fertilisers Pty Ltd (YPF) and ENGIE are proposing to develop a Renewable Hydrogen Plant (the Proposal). The Proposal, including associated infrastructure, will be located adjacent to the existing YPF Plant within the Burrup Peninsula Strategic Industrial Area, in the Pilbara region of Western Australia. The Proposal will provide a feed source for the existing YPF Plant on Murujuga (Burrup Peninsula) to produce green ammonia. The Proposal will reduce emissions on the Murujuga and support the developing 'renewable green hydrogen' market whilst maintaining the production of ammonia at the YPF Plant</p> <p>The Proposal includes the construction of a Renewable Hydrogen Plant and associated infrastructure including: a solar photovoltaic (PV) farm; electrolyser and its balance of plant; and supporting infrastructure including site tracks. The Proposal forms the commercial demonstration (Phase 0) of a longer term, larger scale renewable hydrogen project. Phase 0 focuses on using solar energy (from the PV farm) to generate hydrogen (an electrolysis plant) which is fed into the existing YPF Plant to make ammonia. The PV farm will have a production capacity of 18 Megawatt (MW) peak to facilitate the production of approximately 640 tonnes (t) of renewable hydrogen per annum. The overall ammonia plant capacity is not expected to change and will continue at its approved capacity of 2,600 t per day.</p> <p>Construction of the Proposal is anticipated to commence in 2021 and continue until June 2023. Construction works for the Proposal will include establishment of temporary construction facilities, ground preparation works, and installation of Proposal components. Water resources for the Proposal will be provided by the existing YPF Plant. No new access roads are anticipated, although site tracks will be established for maintenance purposes. Drainage and waste water treatments will be routed toward the YPF Plant. No solid waste management facilities are anticipated.</p>	
1.3 What is the extent and location of your proposed action?	
See Appendix B	
1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland)	
<p>The Proposal will be located adjacent to the existing YPF Plant on Murujuga, approximately 11 km north-west of Karratha in the Pilbara region of the north-west of Western Australia.</p> <p>The Renewable Hydrogen Proposal Footprint (also referred to as the Proposal Footprint) will be completely within the existing YPF Development Envelope.</p>	
1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?	
The Proposal Footprint is approximately 24.78 ha.	
1.7 Proposed action location	
Address - Village Road, Burrup, WA, 6714, Australia	
1.8 Primary jurisdiction	Western Australia
1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.9.1 Provide detail	
<p>Round 1 funding received through the Australian Renewable Energy Agency (ARENA) Renewable Hydrogen Deployment Funding Round.</p> <p>The Proposal is one of 7 shortlisted to apply Round 2 funding with detailed submission in progress.</p>	



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1.10 Is the proposed action subject to local government planning approval?

☒ Yes ☐ No

1.10.1 Is there a local government area and council contact for the proposal?

☒ Yes ☐ No

1.10.1.0 Council contact officer details

1.10.1.1 Name of relevant council contact officer	Chris Sayer
1.10.1.2 E-mail	chris.sayer@karratha.wa.gov.au
1.10.1.3 Telephone Number	08 9186 8533

1.11 Provide an estimated start and estimated end date for the proposed action	Start Date	01/07/2021
	End Date	30/06/2022

1.12 Provide details of the context, planning framework and state and/or local Government requirements

The Proposal Footprint lies on freehold land, which is held by DevelopmentWA, which is been leased by YPF. The Proposal Footprint is within the Burrup Strategic Industrial Area, which is zoned for 'Strategic Industry' under the City of Karratha Local Planning Scheme No. 8.

Environmental Protection Act 1986 (WA)

The existing YPF project was assessed by the EPA under Part IV of the EP Act at a Public Environmental Review (PER) level. The PER was publicly advertised from 6 August 2001 to 3 September 2001. Following assessment by the EPA (Bulletin 1036), the existing project was approved by the Minister for the Environment through Statement 586 in February 2002. Subsequent to this approval there have been five section 45c applications to amend the existing project resulting in attachments to Statement 586. This Proposal would amend the existing YPF Part IV approval to include additional disturbance area. Specifically, this Proposal would establish an additional 24.78 ha Renewable Hydrogen Plant Footprint within the existing 73 ha Development Envelope, which would take the total disturbance area within the Development Envelope to 53.78 ha. The remainder of the YPF project elements are not proposed to be changed.

The Proposal will be referred to the WA Environmental Protection Authority (EPA) under Part IV of the EP Act, concurrently with this EPBC Act referral.

The existing YPF Plant is licenced under Part V of the EP Act (L9224/2019/1). The Proposal will be encompassed within the scope of this licence.

Planning and Development Act 2005 (WA)

The Proposal will require Development Approval under the Planning and Development Act 2005, which will be assessed by the City of Karratha / Kimberley/Pilbara/Gascoyne Pilbara/ Gascoyne Joint Development Assessment Panel.

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders

YPF undertakes ongoing engagement with key stakeholders. These stakeholders include local Traditional Owners, Commonwealth, State and Local Government members and associated Departments, as well as community members, local and regional industry and media. A summary of consultation undertaken relevant to this Proposal is provided in Attachment 1, Section 3.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project

Environmental Protection Act 1986 (WA)

The Proposal will be referred to the WA Environmental Protection Authority (EPA) under Part IV of the EP Act, concurrently with this EPBC Act referral.

Environment Protection and Biodiversity Conservation Act 1999 (Cm)

The existing YPF Plant was referred to Environment Australia under the EPBC Act in March 2001. The referral, which included concluded that there would be no impact on MNES included the current Proposal Footprint. The referral was placed on the EPBC Act website for public comment. Following review, the Commonwealth Minister for the Environment and Heritage confirmed on 2 April 2001 that the project was not a controlled action (2001/199).

This Proposal is being referred to the Department of Agriculture, Water and the Environment (DAWE) under the EPBC Act due to potential impacts to listed species.

1.15 Is this action part of a staged development (or a component of a larger project)?

☐ Yes ☒ No



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1.16 Is the proposed action related to other actions or proposals in the region?

☐

Yes

☒

No



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Section 2

Matters of national environmental significance

2.1 Is the proposed action likely to have any direct or indirect impact on the values of any World Heritage properties?

☐ Yes ☒ No

2.2 Is the proposed action likely to have any direct or indirect impact on the values of any National Heritage places?

☐ Yes ☒ No

2.3 Is the proposed action likely to have any direct or indirect impact on the ecological character of a Ramsar wetland?

☐ Yes ☒ No

2.4 Is the proposed action likely to have any direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

☒ Yes ☐ No

Species or threatened ecological community

Pilbara Olive Python (*Liasis olivaceus barroni*)

Impact

Localised removal of core and supportive habitat, potential vehicle interaction.

Species or threatened ecological community

Australian Painted Snipe (*Rostratula australis*)

Impact

Localised removal of foraging habitat.

2.4.2 Do you consider this impact to be significant?

☐ Yes ☒ No

2.5 Is the proposed action likely to have any direct or indirect impact on the members of any listed migratory species or their habitat?

☒ Yes ☐ No

Migratory species

Common Sandpiper (*Actitis hypoleucos*), Sharp-tailed Sandpiper (*Calidris acuminata*), Red Knot (*Calidris canutus*), Curlew Sandpiper (*Calidris ferruginea*), Pectoral Sandpiper (*Calidris melanotos*), Red-necked Stint (*Calidris ruficollis*), Long-toed Stint (*Calidris subminuta*), Great Knot (*Calidris tenuirostris*), Oriental Plover (*Charadrius veredus*), Gull-billed Tern (*Gelochelidon nilotica*), Oriental Pratincole (*Glareola maldivarum*), Caspian Tern (*Hydroprogne caspia*), Bar-tailed Godwit (*Limosa lapponica*), Black-tailed Godwit (*Limosa limosa*), Eastern Curlew (*Numenius madagascariensis*), Little Curlew (*Numenius minutus*), Whimbrel (*Numenius phaeopus*), Eastern Osprey (*Pandion cristatus*), Pacific Golden Plover (*Pluvialis fulva*), Grey Plover (*Pluvialis squatarola*), Crested Tern (*Thalasseus bergii*), Grey-tailed Tattler (*Tringa brevipes*), Common Greenshank (*Tringa nebularia*), Marsh Sandpiper (*Tringa stagnatilis*), Terek Sandpiper (*Xenus cinereus*).

Impact

Localised removal of core and supportive habitat, potential vehicle interaction.

2.5.2 Do you consider this impact to be significant?

☐ Yes ☒ No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

☐ Yes ☒ No



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2.7 Is the proposed action likely to be taken on or near Commonwealth land? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.9 Is the proposed action likely to have any direct or indirect impact on a water resource from coal seam gas or large coal mining development? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.10 Is the proposed action a nuclear action? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.11 Is the proposed action to be taken by a Commonwealth agency? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.12 Is the proposed action to be undertaken in a Commonwealth Heritage place overseas? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.13 Is the proposed action likely to have any direct or indirect impact on any part of the environment in the Commonwealth marine area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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Section 3

Description of the project area

3.1 Describe the flora and fauna relevant to the project area

GHD undertook a detailed flora and vegetation survey, targeted flora survey and a single season Level 2 fauna survey of areas within and adjacent to the YPF lease boundary. This assessment was undertaken in March 2020 and covered a survey area which included the Development Envelope and Proposal Footprint.

The field survey recorded a total of 141 flora taxa (including subspecies and varieties) representing 40 families and 99 genera. This total comprised of 138 native taxa and 3 introduced taxa. The three introduced taxa recorded included **Cenchrus ciliaris* (Buffel grass), **Aerva javanica* (Kapok bush) and **Vachellia farnesiana* (Mimosa bush). None of these species are Weeds of National Significance (WONS) or listed as Declared Plants under the Biosecurity and Agricultural Management Act 2007. Dominant families within the survey area included Fabaceae (28 taxa), Poaceae (19 taxa) and Malvaceae (17 taxa). The floristic diversity recorded during the survey was considered representative of the floristic diversity in the area (GHD 2020a).

Desktop searches identified the potential presence of six conservation significance flora taxa within the Development Envelope. The field survey recorded three Priority flora species within the surveyed areas, including *Terminalia supranitifolia* (Priority 3), *Vigna triodiophila* (Priority 3) and *Rhynchosia bungarensis* (Priority 4) (GHD 2020a). All three of these species occur within the Development Envelope, but only *T. supranitifolia* (2 individuals) occurs within the Proposal Footprint. A likelihood of occurrence assessment conducted post-field survey concluded that no other conservation significant flora taxa are considered likely or may possibly occur within the Development Envelope and Proposal Footprint.

The wet season (Level 2) 2020 fauna surveys recorded 113 vertebrate fauna species, including 19 mammals, 57 birds, 36 reptiles and one amphibians. Of these, four were introduced species and included Dog, Cat, Fox and Black Rat. Overall, it was considered that terrestrial vertebrate fauna was adequately sampled and that survey effort was adequate to provide a true representation of the fauna assemblage present at the time of the survey (GHD 2020a).

The field survey recorded eight conservation significant fauna species within or close to the Proposal:

- Pilbara Olive Python (*Liasis olivaceus barroni*) – Listed as Vulnerable under the BC Act and the EPBC Act
- Western Pebble-mound Mouse (*Pseudomys chapmani*) – Listed as Priority 4 by DBCA
- North-western Free-tail Bat (*Mormopetrus ozimops cobourgianus*) - Listed as Priority 1 by DBCA
- Caspian Tern (*Hydroprogne caspia*) – Listed Marine and Migratory (International Agreements) under the BC Act and the EPBC Act
- Gull-billed Tern (*Gelochelidon nilotica*) – Listed Marine and Migratory (International Agreements) under the BC Act and the EPBC Act
- Common Sandpiper (*Actitis hypoleucos*) – Listed Marine and Migratory (International Agreements) under the BC Act and the EPBC Act
- Common Greenshank (*Tringa nebularia*) – Listed Marine and Migratory (International Agreements) under the BC Act and the EPBC Act.
- Red-necked Stint (*Calidris ruficollis*) – Listed Marine and Migratory (International Agreements) under the BC Act and EPBC Act

A further 23 conservation significant fauna species were considered likely to occur based on species biology, habitat requirements, and the quality and availability of suitable habitat as determined during the field survey. Of the 23 conservation significant species that are considered likely to occur in the Development Envelope and Proposal Footprint, 22 were considered likely due to the Floodplain and Water body habitats. These habitats provide foraging habitat for migratory shore bird species. The remaining habitats of the Development Envelope and Proposal Footprint are not considered to be used by these species. The remaining one conservation significant species, the Peregrine Falcon is known from the region and would opportunistically use all the habitats present (excluding cleared areas) in the Development Envelope and Proposal Footprint for foraging purposes only.

3.2 Describe the hydrology relevant to the project area (including water flows)

There are no watercourses or wetlands within or immediately adjacent to the Development Envelope or Proposal Footprint. There are broad, ephemeral drainage lines within the northern part of Proposal Footprint which drain water during major rainfall events (usually associated with thunderstorms and cyclones) from the rocky outcrops in the north towards the low-lying tidal flats south of the Proposal Footprint. The western part of the Proposal Footprint intersects a low-lying expanse of supratidal mud flats and coastal sand plain which link King Bay and Hearson Cove (supra-tidal flats). This area is known to be periodically inundated after extreme tides or extended heavy rainfall.

3.3 Describe the soil and vegetation characteristics relevant to the project area

The Proposal is located within the Karratha Coast Zone of the Fortescue Province. This zone is characterised by coastal mudflats (with sandy coastal plains and some hills) on marine deposits (and some sedimentary and volcanic rocks of the Pilbara Craton). The Development Envelope is characterised by bare rock outcrop with pockets of shallow siliceous sands and loams. It also contains soils that have been heavily modified by cutting, filling, and levelling to enable construction of the existing YPF Plant and associated infrastructure.



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Seven vegetation types were identified during the field survey as well as cleared areas and seasonally inundated/open water. All seven vegetation types (as well as cleared areas and seasonally inundated/open water) occur within the Development Envelope and five occur within the Proposal Footprint. The vegetation within the Proposal Footprint is dominated by hummock grasslands of *Triodia* with scattered to open shrublands dominated by *Acacia*, *Hakea* and *Grevillea* species on rocky hills. Areas within the Proposal Footprint west of the existing YPF were characterised by samphire shrublands and *Triodia* low hummock grasslands on low lying, saline tidal flats.

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area

One Priority Ecological Community (PEC) was identified during the survey, the Burrup Peninsula Rock Pile Communities, which is listed as Priority 1 by the DBCA. None of this PEC occurs within the Proposal Footprint.

Vegetation located in the tidal inlet between Hearson Cove and King Bay was identified as being of conservation significance by ME Trudgen & Associates (2002). *Tecticornia* scattered to open low shrubland (VT05) is considered to correspond with the basic vegetation units mapped by ME Trudgen & Associates (2002), designated Sm and described as Saline Inlet and Supra-tidal Flats. This vegetation may have some significance as it has a restricted distribution and has been impacted from threatening processes such as clearing and development on Murujuga. There is 1.08 ha of VT05 within the Proposal Footprint.

3.5 Describe the status of native vegetation relevant to the project area

Broad scale pre-European vegetation mapping completed by Beard (1975) indicates one vegetation association occurs within the Development Envelope and Proposal Footprint, association 117, which is described as Hummock grasslands, grass steppe; soft spinifex.

The extent of vegetation associations have been determined by the state-wide vegetation remaining extent calculations maintained by DBCA (latest update March 2019 – GoWA 2019). The current extent of vegetation association 117 is greater than 77 per cent of its pre-European extent at all scales (e.g. State, IBRA Bioregion, IBRA Sub-region and Local Government Area (LGA)).

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area

The Proposal Footprint varies from foothills in its northern part to low lying areas subject to tidal inundation in its southern part. Elevation across Proposal Footprint varies from approximately 30 mAHD to 5 mAHD.

3.7 Describe the current condition of the environment relevant to the project area

The Proposal Footprint is located adjacent to the existing YPF Plant, within the YPF Development Envelope. The Proposal Footprint largely comprises native vegetation in Excellent or Very Good to Excellent condition. Generally, the vegetation structure across the Proposal Footprint shows no to slight signs of damage with minimal weeds recorded. There are a few small areas rated Good to Degraded; these areas show more obvious signs of damage/impacts including weed invasion.

3.8 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the project

No Commonwealth Heritage Places will be impacted.

The majority of the Dampier Archipelago (including Murujuga) is designated a National Heritage Place. A portion of the Development Envelope associated with rocky outcrop in the northwest is included within the National Heritage Place. The Proposal Footprint has been specifically designed to avoid any areas that are classified as National Heritage Place.

3.9 Describe any Indigenous heritage values relevant to the project area

The Development Envelope has been subject to a number of previous archaeological studies. On the basis of the existing data, an archaeological site verifications survey (LAS, 2020) was undertaken in March 2020 to verify the heritage values within the Development Envelope. The survey involved archaeologists and an anthropologist and consultation with the Murujuga Aboriginal Corporation (MAC).

A desktop assessment which included a search of the Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System (AHIS) identified 32 previously recorded Aboriginal heritage places with boundaries overlapping the Development Envelope. Of these 32 places, nine are 'Registered Sites' meaning the Aboriginal Cultural Material Committee has assessed these as places to which the Aboriginal Heritage Act 1972 applies.

Desktop analysis of the previous site recordings identified 18 of the 32 DPLH AHIS sites are potentially within the Development Envelope. The hills in the northwest of the Development Envelope were considered likely to have a number of heritage sites. In consultation with MAC the hills in the northwest of the Development Envelope the hill areas were excluded from Proposal and were therefore not surveyed. With the exclusion of hills in the northwest, nine of the potential 18 sites remain in the Development Envelope. The field survey was undertaken to verify the location of the nine heritage sites. While the site boundaries of eight of the nine sites were verified, one site (20266) could not be located. The one that could not be relocated, site 20266, was recorded as being on the same granophyre outcrop as 20265.

Consultation with MAC representatives acknowledged these nine sites as being of cultural importance, and should not be



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disturbed. MAC also advised that the area was not heavily used by Aboriginal people in the past, and was likely a place of temporary habitation where resources were gathered, and art made in an impromptu manner, as people travelled through the country to better watered and sheltered areas on Murujuga.

On the basis of the cultural importance of each site the Proposal Footprint was modified to avoid all identified sites.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area

The Proposal Footprint lies on freehold land, which is held by DevelopmentWA, which is leased by YPF.

3.11 Describe any existing or any proposed uses relevant to the project area

The Proposal Footprint is currently located on undeveloped land that is within the YPF Development Envelope. The Proposal will be located adjacent to the existing YPF Plant and will operate as a standalone operation within the existing YPF Development Envelope.



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Section 4

Measures to avoid or reduce impacts

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action

Potential impacts to MNES have been considered during Proposal design and minimised as far as practical. The Proposal Footprint has been designed to:

- Avoid all Registered Heritage Sites
- Avoid all areas that are mapped as the Dampier Archipelago (including Murujuga) National Heritage Place
- Avoid disturbance of rocky outcropping areas which are considered core habitat for the Pilbara Olive Python.

Through excluding these areas, the Proposal has also been able to avoid impacts to WA-listed vegetation communities and flora species.

- Minimise disturbance of floodplain and water body habitats which are considered foraging habitat for Migratory bird species.

The Proposal Footprint represents the maximum area to be disturbed. Within this Footprint, opportunities to further reduce clearing and minimise disturbance will be considered, where practicable. Only the area absolutely necessary for Proposal development will be cleared; this will be ascertained by adequate planning prior to Proposal implementation.

A Construction Environmental Management Plan (CEMP) has been prepared for the Proposal. Environmental management actions in the CEMP will focus on impacts to native fauna and their associated habitats as well as indirect impacts on heritage values. Management actions in the CEMP will include:

- Minimising vegetation clearing and the area of disturbance on the ground by utilising existing cleared or highly degraded areas where possible.
- Demarcate Proposal Footprint boundary using appropriate visual markers prior to ground disturbing activities.
- Ground disturbing activities such as clearing or excavation limited to Proposal Footprint and must not occur within National Heritage Place.
- Vehicles and equipment access limited to designated roads/access tracks and cleared areas, and vehicle speed limits will be imposed and enforced on nominated routes to minimise fauna injury/death during Proposal construction.
- Prior to clearing conduct a trapping and relocation program for conservation significant fauna (focus on Pilbara Olive Python) in accordance with the Department of Biodiversity, Conservation and Attractions (DBCA) Standard Operating Procedures (SOPs) and permit/licence conditions as required under the BC Act. The program is to be undertaken by a qualified fauna specialist.
- Vegetation clearing to occur outside of the Pilbara Olive Python breeding season.
- Prior to commencing vegetation clearing activities, machinery will idle for at least half an hour.
- Fauna spotters are required on site during vegetation clearing activities to supervise dispersal and relocation of any fauna. Fauna identified within the demarcated clearing areas unable to move away from the clearing areas without intervention are to be moved to a location deemed appropriate for the safety and survival of the fauna individual/s.
- Clearing to be undertaken progressively in one direction to allow fauna to move on.
- Excavation and trenches will be kept open only as long as needed for the works. Egress points will be provided in appropriate size excavations and trenches. For trenches or excavations that can be covered by a fence panel, this will be completed to prevent animal egress. Trenches and excavations will be checked for trapped animals.
- Observations of conservation significant fauna species by site personnel are to be reported to the site environment representative.
- Night-time vehicle movements during construction will be restricted where possible to minimise the potential for vehicle strikes.
- No pets, traps or firearms are allowed within the Development Envelope.
- No feeding or intentionally harming native fauna.
- All site personnel to be inducted on environmental responsibilities.
- Dust suppression, including use of water carts on access roads, to be implemented during construction activities and in proximity to National Heritage Place as required.
- Vibration to be minimised through planned blasting (guided by geotechnical assessment and risk assessment of vibration impact) and the designation of buffer zones as required.
- Heavy vehicle movements minimised as far as practicable.
- Reduce noise emissions as much as practicable.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved

The Proposal will result in the loss of 1.24 ha of core habitat and 21.69 ha of supportive habitat for the Pilbara Olive Python.

The Proposal will result in the loss of up to 1.63 ha of foraging habitat for a range of migratory birds that occur in the local area.



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Section 5

Conclusion on the likelihood of significant impacts

5.1 You indicated the below ticked items to be of significant impact and therefore you consider the action to be a controlled action

- ☐ World Heritage properties
- ☐ National Heritage places
- ☐ Wetlands of international importance (declared Ramsar wetlands)
- ☐ Listed threatened species or any threatened ecological community
- ☐ Listed migratory species
- ☐ Marine environment outside Commonwealth marine areas
- ☐ Protection of the environment from actions involving Commonwealth land
- ☐ Great Barrier Reef Marine Park
- ☐ A water resource, in relation to coal seam gas development and large coal mining development
- ☐ Protection of the environment from nuclear actions
- ☐ Protection of the environment from Commonwealth actions
- ☐ Commonwealth Heritage places overseas
- ☐ Commonwealth marine areas

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action

Pilbara Olive Python (*Liasis olivaceus barroni*)

In determining the significance of clearing up to 1.24 ha of core habitat and 21.69 ha of supportive habitat for the Pilbara Olive Python, an assessment against the impact criteria for vulnerable species outlined in DAWE's Significant Impact Guidelines 1.1 – Matters of National Environmental Significance (DotE 2013) was completed.

Given the nature and scale of the Proposal, it is considered that the clearing of up to 1.24 ha of core habitat and 21.69 ha of supportive habitat for the Pilbara Olive Python for this Proposal is not significant.

Australian Painted Snipe (*Rostratula australis*)

In determining the significance of clearing up to 1.63 ha of core habitat, an assessment against the impact criteria for vulnerable species outlined in DAWE's Significant Impact Guidelines 1.1 – Matters of National Environmental Significance (DotE 2013) was completed.

Given the nature and scale of the Proposal, it is considered that the clearing of up to 1.63 ha of core habitat the Australian Painted Snipe for this Proposal is not significant.

Migratory species

In determining the significance of clearing up to 1.63 ha of foraging habitat for 25 Migratory species recorded or considered likely to occur within the Proposal Footprint, an assessment against the impact criteria for migratory species outlined in DAWE's Significant Impact Guidelines 1.1 – Matters of National Environmental Significance (DotE 2013) was completed.

Given the nature and scale of the Proposal, it is considered that the clearing of up to 1.63 ha of foraging habitat for 25 Migratory species recorded or considered likely to occur within the Proposal Footprint for this Proposal is not significant.



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Section 6

Environmental record of the person proposing to take the action

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Explain in further detail

Yes

YPF is one of the world's leading fertiliser companies. The existing YPF Plant is one of the largest ammonia production facilities in the world, producing about 850,000 tonnes a year of ammonia and supplying approximately 5 per cent of the traded ammonia in the global market. YPF has an excellent operating history of responsible environmental management.

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application

While YPF has had no prior or present proceedings against it, a related corporate entity, Yara Pilbara Nitrates Pty Ltd, was considered in an inquiry by the Senate's Environment and Communications Inquiry, which produced the March 2018 report Protection of Aboriginal rock art of the Burrup Peninsula. The report identified 3 technical reporting non-compliances and a monitoring non-compliance, with the latter issues leading to a variation of conditions. These non-compliances did not involve environmental impact. The report identified regular departmental engagement with YPN. There have been no other relevant proceedings prior or since the Senate inquiry.

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?

☒ Yes ☐ No

6.3.1 If the person taking the action is a corporation, provide details of the corporation's environmental policy and planning framework

The proposed action by YPF will be undertaken in accordance with the Yara Policy for Health, Environment, Safety, Quality and Product Stewardship. This policy refers to Yara Directives and Technical and Operational standards in force for such operations. This policy is in use throughout Yara and is part of the framework for Yara's successful operation of facilities around the world. It clearly states Yara's commitment for maintaining high environmental, health and safety standards which will be directly applicable for the Proposal.

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

☒ Yes ☐ No

6.4.1 EPBC Act No and/or Name of Proposal

EPBC 2001/199

Liquid Ammonia Complex, Burrup Peninsula



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Section 7
Information sources
Reference source
Beard, JS 1975, Vegetation Survey of Western Australia: Pilbara, map and explanatory memoir 1:1,000,000 series, Nedlands, University of Western Australia Press.
Reliability
Peer reviewed publication
Uncertainties
Nil
Reference source
Bureau of Meteorology (BoM) 2020, Climate Data Online, retrieved April 2020, from http://www.bom.gov.au/climate/data/
Reliability
Government database
Uncertainties
Nil
Reference source
Department of Agriculture, Water and the Environment (DAWE) 2020, Environmental Protection and Biodiversity Conservation Act 1999 Protected Matters Search Tool Results, retrieved April 2020, from http://www.environment.gov.au/webgis-framework/apps/pmst/pmst.jsf
Reliability
Government database
Uncertainties
Nil
Reference source
Department of Biodiversity Conservation and Attractions 2007, NatureMap: Mapping Western Australia's Biodiversity, retrieved May 2017, from http://naturemap.dpaw.wa.gov.au/default.aspx/
Reliability
Government database
Uncertainties
Nil
Reference source
Department of Planning, Lands and Heritage (DPLH) 2020, Aboriginal Heritage Inquiry System: List of Registered Aboriginal Sites, retrieved April 2020 from https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS
Reliability
Government database
Uncertainties
Nil



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Reference source
GHD Pty Ltd 2020a, Flora and Fauna Survey, unpublished report prepared for Yara Pilbara Fertilisers
Reliability
Peer reviewed report
Uncertainties
Nil

Reference source
GHD Pty Ltd 2020b, Ammonia Plant, Murujuga (Burrup Peninsula) – Renewable Hydrogen Plan, Section 38 Referral Supporting Report, unpublished report prepared for Yara Pilbara Fertilisers
Reliability
Peer reviewed report
Uncertainties
Nil

Reference source
GHD Pty Ltd 2020c, Construction Environmental Management Plan (CEMP), Unpublished report prepared for Yara Pilbara Fertilisers
Reliability
Peer reviewed report
Uncertainties
Nil

Reference source
Government of Western Australia (GoWA) 2019, 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full report), Current as of March 2019, Perth, Australia, Department of Biodiversity, Conservation and Attractions, retrieved Feb 2020, from https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics
Reliability
Government database
Uncertainties
Nil

Reference source
Land Access Solutions 2020, Archaeological Site Verifications, unpublished report prepared for GHD on behalf of Yara
Reliability
Peer reviewed report
Uncertainties
Nil

Reference source
ME Trudgen and Associates 2002, A flora, vegetation and floristic survey of the Burrup Peninsula, some adjoining areas and part of the Dampier Archipelago, with comparisons to the floristics of areas on the adjoining mainland Volume 2. For the Department of Mineral and Petroleum Resources. Perth, WA.
Reliability



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Peer reviewed report

Uncertainties

Nil

Reference source

Tille, P.J., 2006. Soil-landscapes of Western Australia's rangelands and arid interior. Department of Agriculture and Food, Western Australia, Perth. Report 313.

Reliability

Peer reviewed publication

Uncertainties

Nil



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 8

Proposed alternatives

Do you have any feasible alternatives to taking the proposed action?

☒ Yes ☐ No

8.0 Provide a description of the feasible alternative

A number of alternative locations were considered for the Proposal, to reflect three potential infrastructure arrangement options:

- Locating the solar PV and electrolyser off Murujuga, with a hydrogen pipeline to the existing YPF Plant, crossing the causeway near Karratha airport.

- Locating the solar PV off Murujuga with a High Voltage transmission to an electrolyser on Murujuga, crossing the causeway near Karratha airport.

- Locating the solar PV and electrolyser on Murujuga.

Land within the existing YPF Development Envelope and adjacent to the existing YPF Plant on Murujuga was chosen as the preferred location for the Proposal due to:

- Proximity to the existing YPF Plant reduced the requirement for pipeline and transmission of the electricity between the Renewable Hydrogen Plant and the existing YPF Plant and enabled to take advantage of synergies (like utilities) with YPF.

- By bringing the location inside YPF existing lease, several project risks around land access and approvals were mitigated

- Murujuga Aboriginal Corporation expressed their support for this location.

The Proposal Footprint has been designed to:

- Avoid all Registered Heritage Sites

- Avoid all areas that are mapped as the Dampier Archipelago (including Murujuga) National Heritage Place

- Avoid disturbance of rocky outcropping areas which are considered core habitat for the Pilbara Olive Python.

Through excluding these areas, the Proposal has also been able to avoid impacts to WA-listed vegetation communities and flora species.

- Minimise disturbance of floodplain and water body habitats which are considered foraging habitat for Migratory bird species.

8.1 Select the relevant alternatives related to your proposed action

☐ Timeframes

☐ Locations

☐ Activities



Australian Government

Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

8.25 Do you have another alternative?

☐

Yes

☐

No



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 9

Person proposing the action

9.1.1 Is the person proposing the action a member of an organisation?

☒ Yes ☐ No

Organisation

Organisation name YARA PILBARA FERTILISERS PTY LTD

Business name

ABN

74095441151

ACN

Business address

Village Road, Burrup, 6714, WA, Australia

Postal address

Main Phone number

0893278103

Fax

Primary email address

luke.blackbourn@yara.com

Secondary email address

9.1.2 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

☐ Small business

☒ Not applicable

9.1.2.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations *

☐ Yes ☒ No

9.1.3 Contact

First name

Luke

Last name

Blackbourn

Job title

Manager - Government and External Relations

Phone

0893278103

Mobile

0436650194

Fax

Email

brian.howarth@yara.com

Primary address

Level 5, 182 St Georges Terrace, Perth, 6000, WA, Australia

Address

Declaration: Person proposing the action

I, Luke Blackbourn, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity.

Signature: [Signature] Date: 28/7/20

I, Luke Blackbourn, the person proposing the action, consent to the designation of Brian Howarth as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature: [Signature] Date: 28/7/20



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Proposed designated proponent

9.2.1 Is the proposed designated proponent a member of an organisation?

☒ Yes ☐ No

Organisation

Organisation name	YARA PILBARA FERTILISERS PTY LTD
Business name	
ABN	74095441151
ACN	
Business address	Village Road, Burrup, 6714, WA, Australia
Postal address	
Main Phone number	0437782680
Fax	
Primary email address	brian.howarth@yara.com
Secondary email address	

9.2.2 Contact

First name	Brian
Last name	Howarth
Job title	Manager - Capital Projects
Phone	0437782680
Mobile	0437782680
Fax	
Email	brian.howarth@yara.com
Primary address	Village Road, Burrup, 6714, WA, Australia
Address	

Declaration: Proposed Designated Proponent

I, Brian Howarth, the
proposed designated proponent, consent to the designation of
myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature: [Signature] Date: 29/7/20



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Referring party (person preparing the information)

9.3.1 Is the referring party (person preparing the information) a member of an organisation?

☒ Yes ☐ No

Organisation

Organisation name

YARA PILBARA FERTILISERS PTY LTD

Business name

ABN

74095441151

ACN

Business address

Village Road, Burrup, 6714, WA, Australia

Postal address

Main Phone number

0403172270

Fax

Primary email address

scott.varvell@yara.com

Secondary email address

9.3.2 Contact

First name

Scott

Last name

Varvell

Job title

Senior Environmental Advisor

Phone

0403172270

Mobile

Fax

Email

scott.varvell@yara.com

Primary address

Village Road, Burrup, 6714, WA, Australia

Address

Declaration: Referring party (person preparing the information)

I, SCOTT VARVELL, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature:

Date: 29-JUL-2020



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Appendix A	
Attachment	
Document Type	File Name
govt_approval_conditions	000586.pdf
govt_approval_conditions	Instrument for Referral Decision.pdf
public_consultation_reports	200520 MAC letter of support.pdf
public_consultation_reports	LAS Report Yara DE april2020.pdf
supporting_tech_reports	Renewable Hydrogen Referral Supporting Report Part1.pdf
supporting_tech_reports	Renewable Hydrogen Referral Supporting Report Part2.pdf
supporting_tech_reports	Renewable Hydrogen Referral Supporting Report Part3.pdf
supporting_tech_reports	Renewable Hydrogen Referral Supporting Report Part4.pdf
supporting_tech_reports	Renewable Hydrogen Flora and Fauna Part1.pdf
supporting_tech_reports	Renewable Hydrogen Flora and Fauna Part2.pdf
supporting_tech_reports	Renewable Hydrogen Flora and Fauna Part3.pdf
supporting_tech_reports	Renewable Hydrogen Flora and Fauna Part4.pdf
impact_reduction_docs	Renewable Hydrogen Project Stage 0 CEMP_Rev0.pdf
corp_env_policy_docs	Yara HESQ Policy.pdf

Appendix B
Coordinates
Area 1
-20.621658696753,116.78346084122
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Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

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Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

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